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OREGON
BULLETIN



THE GRADUATE
SCHOOL

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for the Sessions of
1930-31*

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THE UNIVERSITY OF
OREGON



THE GRADUATE SCHOOL

ANNOUNCEMENTS

1930-31

CATALOG 1929-30

PUBLISHED BY THE UNIVERSITY
UNIVERSITY PRESS
EUGENE

CALENDAR, 1930

JULY							AUGUST							SEPTEMBER																			
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CALENDAR, 1931

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UNIVERSITY OF OREGON CALENDAR, 1930-31

FALL TERM

September 22-27	Freshman Week and registration.
September 29, Monday	University classes begin.
October 11, Saturday	Last day to enter the University.
October 11, Saturday	Last day to add a course.
November 11, Tuesday	Armistice day, a holiday.
November 27-30, Thursday to Sunday	Thanksgiving vacation.
December 15-19, Monday to Friday	Fall term examinations.
December 20, Saturday	Christmas vacation begins.

WINTER TERM

January 5, Monday	Registration day.
January 6, Tuesday	University classes begin.
January 17, Saturday	Last day to enter the University.
January 17, Saturday	Last day to add a course.
March 16-20, Monday to Friday	Winter term examinations.
March 21, Saturday	Spring vacation begins.

SPRING TERM

March 30, Monday	Registration day.
March 31, Tuesday	University classes begin.
April 11, Saturday	Last day to enter the University.
April 11, Saturday	Last day to add a course.
May 15-17, Friday to Sunday	Junior Week-End (classroom exercises suspended).
May 30, Saturday	Memorial day, a holiday.
June 8-12, Monday to Friday	Spring term examinations.
June 13, Saturday	Alumni day.
June 14, Sunday	Baccalaureate sermon.
June 15, Monday	Commencement.

SUMMER SESSIONS

June 22, Monday	Registration day.
June 23, Tuesday	University classes begin.
July 4, Saturday	Independence day, a holiday.
July 31, Friday	Summer session ends.
August 8, Monday	Post session begins.
August 23, Friday	Post session ends.
August 28, Friday	Summer School Commencement.

1931-32

September 21-26, Monday to Saturday	Freshman Week and registration.
September 28, Monday	University classes begin.

STATE BOARD OF HIGHER EDUCATION

OFFICERS

HON. C. L. STARR, *President*
HON. A. R. WATZEK, *Temporary Secretary*

EXECUTIVE COMMITTEE

HON. C. L. STARR, *Chairman*
HON. A. R. WATZEK HON. E. C. SAMMONS

APPOINTED BY THE GOVERNOR

Name and Address	Term Expires
HON. HERMAN OLIVER, Canyon City.....	July 1, 1930
HON. A. R. WATZEK, Portland.....	July 1, 1931
HON. F. E. CALLISTER, Albany.....	July 1, 1932
HON. E. C. PEASE, The Dalles.....	July 1, 1933
HON. ALBERT BURCH, Medford.....	July 1, 1934
HON. E. C. SAMMONS, Portland.....	July 1, 1935
HON. C. L. STARR, Portland.....	July 1, 1936
HON. B. F. IRVINE, Portland.....	July 1, 1937
HON. C. C. COLT, Portland.....	July 1, 1938

OFFICERS OF ADMINISTRATION

THE UNIVERSITY

ARNOLD BENNETT HALL, A.B., J.D., LL.D.....	<i>President of the University</i>
BURT BROWN BARKER, A.B., LL.B.....	<i>Vice President of the University</i>
KARL W. ONTHANK, M.A.....	<i>Executive Secretary of the University</i>
LOUIS H. JOHNSON.....	<i>University Comptroller</i>
PAUL W. AGER, B.A.....	<i>Assistant Comptroller</i>
EARL M. PALLETT, M.S.....	<i>Registrar and Acting Dean of Men</i>
HUGH L. BIGGS, B.A.....	<i>Assistant Dean of Men</i>
VIRGINIA JUDY ESTERLY, M.A.....	<i>Dean of Women</i>
HAZEL PRUTSMAN SCHWERING, Ph.B.....	<i>Assistant Dean of Women</i>
M. H. DOUGLASS, M.A.....	<i>University Librarian</i>
GERTRUDE BASS WARNER, M.A.....	<i>Director, Oregon Museum of Fine Arts</i>

THE GRADUATE COUNCIL

GEORGE REBEC, Ph.D.....	<i>Dean, Philosophy</i>
C. V. BOYER, Ph.D.....	<i>English</i>
EDMUND S. CONKLIN, Ph.D.....	<i>Psychology</i>
CARL L. HUFFAKER, Ph.D.....	<i>Education</i>
OLOF LARSELL, Ph.D.....	<i>School of Medicine</i>
EARL L. PACKARD, Ph.D.....	<i>Geology</i>
FRIEDRICH G. G. SCHMIDT, Ph.D.....	<i>German</i>
WALDO SCHUMACHER, Ph.D.....	<i>Political Science</i>
HENRY D. SHELDON, Ph.D.....	<i>Education</i>

THE TEACHING FACULTY OF THE GRADUATE SCHOOL

GEORGE REBEC, Ph.D.....	<i>Dean of the Graduate School and Professor of Philosophy</i>
A.B., Michigan, 1891; student at Strassburg, 1893-94; Ph.D., Michigan, 1896; student in Florence, Italy, 1908-09. Faculty, Michigan, 1894-1909; Oregon, 1912-18; director, Portland Extension Center, 1918-23; professor of education, Reed College, 1920-21; head of department of philosophy and dean of Graduate School, Oregon, from 1920.	
PERCY PAGET ADAMS, B.A., B.S.....	<i>Assistant Dean of the School of Architecture and Allied Arts; Professor of Graphics</i>
B.A., Oregon, 1901; B.S., 1902. Faculty, Oregon, from 1902.	
FLORENCE D. ALDEN, M.A.....	<i>Professor of Physical Education; Director of Department for Women</i>
A.B., Smith, 1904; M.A. Teachers' College, N. Y. C., 1928. Faculty, Central School of Physical Education, New York City; Oregon, from 1921.	
ERIC W. ALLEN, B.A.....	<i>Dean of the School of Journalism and Professor of Journalism</i>
B.A., Wisconsin, 1901; editorial staff, Milwaukee Free Press, 1901-02; Seattle Post-Intelligencer, 1904-06; Printing, Photoengraving, Electrotyping, etc., 1906-09; Post-Intelligencer, 1909-12; correspondent, eastern papers, 1905-12. Faculty, Oregon, from 1912; dean of the school of journalism, from 1916.	
WILLIAM F. ALLEN, Ph.D.....	<i>Professor of Anatomy, School of Medicine, Portland</i>
A.B., A.M., Stanford; Ph.D., Minnesota; assistant to E. P. Allis, Mentone, France, 1902-07; Dr. J. Loeb, California, 1907-10. Faculty, Illinois, 1910-11; Minnesota, 1911-16; Oregon, from 1916; head of department of anatomy in the School of Medicine, Portland, from 1917.	
DONALD G. BARNES, Ph.D.....	<i>Professor of History</i>
B.A., Nebraska, 1915; M.A., Harvard, 1917, Ph.D., 1924; Harvard Scholarship, 1915-16, Thayer Fellowship, 1916-17; Harrison Fellowship in History, Pennsylvania, 1917-18; Bayard Cutting Traveling Fellowship, Harvard, 1920-21, Parker Traveling Fellowship, 1921-22; London School of Economics, 1920-21; Cambridge, England, 1922. Faculty, Oregon, from 1922.	
WALTER CARL BARNES, B.A. (Oxon).....	<i>Professor of History</i>
A.B., Colorado College, 1912; graduate student, California, 1912-13; Rhodes scholar, Honour School of Modern History, Oxford University, England, 1913-16; B.A. (Oxon), 1916. Faculty, British Columbia, 1917-18; California, 1918-20; Oregon, from 1920.	
JAMES DUFF BARNETT, Ph.D.....	<i>Professor of Political Science</i>
A.B., Emporia, 1890; fellow in political science, Wisconsin, 1902-03; assistant in political science, 1903-05; Ph.D., 1905. Faculty, Oklahoma, 1905-08; Oregon, from 1908; head of department, from 1909.	
JOSEPH BROWN BILDERBACK, M.D.....	<i>Professor of Pediatrics, School of Medicine, Portland</i>
M.D., Oregon, 1905; post-graduate study in New York, Boston, Berlin, London, and Vienna. Faculty, Oregon, from 1910.	
RICHARD W. BOCK.....	<i>Professor of Sculpture</i>
Student, Academy of Fine Arts, Berlin; Kunstgewerbe Museum, Berlin; and l'Ecole de Beaux Arts, Paris. Faculty, Oregon, from 1929.	
JESSE H. BOND, Ph.D.....	<i>Professor of Business Administration</i>
B.A., Oregon, 1909; M.A., 1913; Ph.D., University of Wisconsin, 1915. Faculty, University of Idaho, 1915-17; Simpson College, 1917-18; University of North Dakota, 1919-26, 1927-28; Princeton University, 1926-27. War department, 1918-19. Faculty, Oregon, from 1928.	
NELSON L. BOSSING, Ph.D.....	<i>Associate Professor of Education</i>
B.A., Kansas Wesleyan, 1917; M.A., Northwestern, 1922; Ph.D., Chicago, 1925. Faculty, Simpson College, 1924-27; Oregon, from 1927.	
JOHN FREEMAN BOVARD, Ph.D.....	<i>Dean of the School of Physical Education and Professor of Physiology</i>
B.A., California, 1903; M.A., 1906; graduate student, Harvard, 1914-15; Ph.D., California, 1916. Faculty, Oregon, from 1906; present position, from 1920.	
RAY PRESTON BOWEN, Ph.D.....	<i>Professor of Romance Languages</i>
A.B., Harvard, 1905; A.M., Cornell, 1915, Ph.D., 1916; University of Geneva, Switzerland, University of Grenoble, France, 1911-12; University of Paris, 1921-22. Faculty, Huron College, 1909-14; Cornell, 1914-16; Syracuse, 1916-18; Earlham, 1918-19; Colorado College, 1919-20; Sorbonne (lecteur d'américain), 1921-22; Syracuse, 1920-25; Oregon, head of department, from 1925.	

- C. V. BOYER, Ph.D. *Professor of English*
B.S., Princeton, 1902; M.A., 1909, Ph.D. 1911; University of Pittsburg Law School, 1902-04; Oxford, England, 1905; American Academy, Rome and Athens, 1906. Faculty, Illinois, 1911-26; Oregon, head of department, from 1926.
- WILLIAM PINGRY BOYNTON, Ph.D. *Professor of Physics*
A.B., Dartmouth, 1890; M.A., 1893; graduate scholar in physics, Dartmouth, 1893-94; Scholar and fellow in physics, Clark, 1894-97; Ph.D., 1897. Faculty, Southern California, 1890-98; California, 1897-1901; California College, 1901-03; Oregon, from 1903; head of department, from 1906.
- JULIA BURGESS, M.A. *Professor of English*
B.A., Wellesley, 1894; M.A., Radcliffe, 1901. Faculty, Oregon, from 1907.
- GEORGE E. BURGET, Ph.D. *Professor of Physiology, School of Medicine, Portland*
A.B., Indiana State Normal School; Ph.D., Chicago. Faculty, Oregon, from 1917.
- CHARLES E. CARPENTER, A.M., LL.B. *Dean of Law School and Professor of Law*
A.B., Kansas, 1903; fellow in sociology and history, 1902-04; A.M., 1904; LL.B., Harvard, 1908. Law faculty, North Dakota, 1909-14; Illinois, 1914-18; Washburn, 1919; dean, law school, Washburn, 1920-22; faculty, Oregon, from 1922. Present position, from 1927.
- RALPH D. CASEY, Ph.D. *Professor of Journalism*
A.B., Washington, 1913; M.A., 1924; fellow in political science, Wisconsin, 1929; Ph.D., 1929. News staff, Seattle Post-Intelligencer, 1913-16; graduate student, Washington, 1914-16; news staff, New York Herald, 1920-21; editorial staff, American Boy Magazine, 1926. Faculty, Montana, 1916-19; Washington, 1919-20; Wisconsin, 1927-29; Oregon, from 1922. Present position, from 1929.
- ALBERT EDWARD CASWELL, Ph.D. *Professor of Physics*
A.B., Stanford, 1908; Ph.D., 1911; national research fellow, Princeton, 1919-20. Faculty, Purdue, 1911-13; Oregon, from 1913.
- *DAN ELBERT CLARK, Ph.D. *Professor of History, Assistant Director of Extension Division*
B.A., Iowa, 1907; Ph.D., Iowa, 1910. Faculty, Iowa, 1909-1918; associate editor, State Historical Society of Iowa, 1908-1918; various positions with American Red Cross, 1918-1921. Faculty, Oregon, from 1921.
- ROBERT CARLTON CLARK, Ph.D. *Professor of History*
B.A., Texas, 1900; M.A., 1901; scholar in history, Wisconsin, 1901-02; fellow, 1902-03; Ph.D., 1905. Faculty, Oregon, from 1905; head of department from 1920; fellow, Texas Historical Association.
- TIMOTHY CLORAN, Ph.D. *Professor of Romance Languages*
B.A., Western Reserve, 1891; student, University of Berlin, 1897-98; University of Strassburg, 1898-99; Ph.D., Strassburg, 1901; student, University of Paris, 1904-05; University of Madrid, 1905-06. Faculty, Shurtleff College, 1898-97; Idaho, 1899-1900; Vanderbilt, 1900-04; Oregon, from 1906; head of department, 1906-1925.
- EDMUND S. CONKLIN, Ph.D. *Professor of Psychology*
B.H., 1908, Springfield, Mass.; A.M., Clark, 1909; fellow in psychology, Clark, 1909-11; Ph.D., 1911. Faculty, Oregon, from 1911; head of department from 1918.
- RAYMOND D. COOL, Ph.D. *Instructor in Chemistry*
B.S., Bridgewater College, Virginia, 1922; M.S., Virginia, 1926; Ph.D., Virginia, 1928. Teaching fellow in chemistry, Virginia, 1925-27; du Pont fellow in chemistry, Virginia, 1927-28; instructor in chemistry, Nevada, 1928-29. Faculty, Oregon, from 1929.
- LUTHER SHEELEIGH CRESSMAN, Ph.D. *Professor of Sociology*
B.A., Pennsylvania State College, 1918; S.T.B., Gen Theological Seminary, New York, 1923; M.A., Columbia, 1923; Ph.D., 1925. Instructor in sociology, College of the City of New York, 1925-28; instructor in sociology, Seth Low Junior College of Columbia University, 1928; John Alsof King, traveling fellow in Europe, 1925-26; professor of sociology, Washington State Normal, 1928-29. Faculty, Oregon, from 1929.
- HAROLD RANDOLPH CROSLAND, Ph.D. *Associate Professor of Psychology*
A.B., South Carolina, 1913; A.M., Clark, 1914; Ph.D., 1916; fellow in experimental psychology, Clark, 1913-16. Faculty, Minnesota, 1916-17; Arkansas, 1917-18; Pittsburg, 1918-20; Oregon, from 1920.
- DAVID R. DAVIS, Ph.D. *Assistant Professor of Mathematics*
B.A., Indiana, 1917; M.A., 1923; Ph.D., Chicago, 1926. Faculty, Illinois State Teachers' College, 1926; Oregon, from 1926.

* Leave of absence, 1929-30.

- BURCHARD WOODSON DEBUSK, Ph.D. *Professor of Education*
B.A., Indiana, 1904; fellow, Clark, 1909-10, 1914-15; Ph.D., 1915; acting director of psychology laboratory, Indiana, 1908-09. Faculty, Teachers' College, Colorado, 1910-14; Oregon, from 1915.
- EDGAR EZEKIEL DECOU, M.S. *Professor of Mathematics*
B.S., Wisconsin, 1894; M.S., Chicago, 1897; graduate student, Chicago, 1899-1900; graduate scholarship, Yale, 1900-01. Faculty, Bethel College, Kentucky, 1897-99, 1901-02; acting president, 1902; head of department of mathematics, Oregon, from 1902.
- RICHARD B. DILLEHUNT, M.D. *Dean of the School of Medicine, Portland*
Illinois, 1904-06; M.D., Chicago, 1910. Faculty, Oregon, from 1912.
- MATTHEW HALE DOUGLASS, M.A. *University Librarian*
B.A., Grinnell, 1895; M.A., Grinnell, 1898. Present position from 1908.
- FREDERIC STANLEY DUNN, A.M. *Professor of Latin*
A.B., Oregon, 1892; A.M., 1899; A.R., Harvard, 1894; holder of Austin Teachers' Scholarship at Harvard, 1902-03; A.M., 1903. Faculty, Willamette, 1895-98; head of department, Oregon, from 1898; leave of absence in Italy, 1918-19.
- RUDOLF HERBERT ERNST, Ph.D. *Associate Professor of English*
B.A., Northwestern College, Wisconsin, 1904; student, Theological Seminary, Wauwatosa, Wisconsin, 1905-07; University of Rostock, Germany, 1908-09; University of Leipzig, 1909-10; Sorbonne, Paris, 1910; M.A., Harvard, 1912; Ph.D., 1918; Thayer Fellowship, Harvard. Faculty, Northwestern College, 1904-05, 1907-08; Washington, 1912-23; Oregon, from 1923.
- JOHN STARK EVANS, B.A. *Associate Dean of the School of Music and Professor of Music*
B.A., Grinnell, 1913; pupil of Rudolph Ganz, New York; Rubin Goldmark, New York; Charles Widor, France; Isidor Philippe, Vienna. Faculty, Oregon, 1917; present position, from 1920.
- DAVID E. FAVILLE, M.B.A. *Dean, School of Business Administration, and Professor of Business Administration*
B.A., Stanford, 1922; M.B.A., Harvard, 1925. Research supervisor, Harvard Bureau of Business Research, 1927. Faculty, Harvard, 1927-28; Oregon, 1925-27; dean, from 1928.
- ANDREW FISH, Ph.D. *Assistant Professor of History*
A.B., Oregon, 1920; M.A., 1921, Clark, 1921-22; Ph.D., 1923. Faculty, Oregon, from 1920.
- WILLIAM A. FOWLER, M.B.A. *Associate Professor of Business Administration*
B.S., Whitman College, 1925; M.B.A., Oregon, 1927. Graduate student, Oregon, 1925-28. Faculty, Oregon, from 1928.
- LEO FRIEDMAN, Ph.D. *Assistant Professor in Chemistry*
B.S., Maine, 1925; Ph.D., Wisconsin, 1928. Faculty, Oregon, 1928. Present position, from 1929.
- DANIEL D. GACE, JR., M.B.A. *Associate Professor of Business Administration*
A.B., Stanford, 1924; M.B.A., Harvard, 1926. Escrow officer, Security Title Insurance and Guarantee Co., Los Angeles, California, 1927-28; escrow and loan officer, Mortgage Guarantee Co., Los Angeles, 1928-29. Faculty, Oregon, from 1929.
- ERNST GELBHORN, M.D., Ph.D. *Professor of Animal Biology*
M.D., Heidelberg, 1919; Ph.D., Muenster, 1919. Assistant professor of animal biology, University of Halle, 1921; associate professor, 1925. Faculty, Oregon, from 1929.
- JAMES HENRY GILBERT, Ph.D. *Dean of the College of Literature, Science and the Arts, and Professor of Economics*
B.A., Oregon, 1903; Ph.D., Columbia, 1907. Faculty, Oregon, from 1907; head of department from 1920; acting dean of the college, 1925-27. Present position from 1927.
- HOWARD D. HASKINS, M.A., M.D. *Professor of Biochemistry, School of Medicine, Portland*
A.B., Michigan; M.D., Western Reserve; M.A., Oregon, 1923. Faculty, Western Reserve, 1907-15; Oregon, from 1915.
- LOUIS F. HENDERSON, M.A. *Research Professor in Plant Biology; Curator of Herbarium*
Ph.B., Cornell, 1874; M.A., Oregon, 1926. Faculty, Idaho, 1898-1909; curator of the herbarium and research fellow, Oregon, from 1925. Present position, from 1929.
- EDWIN T. HODGE, Ph.D. *Professor of Geology*
B.A., Minnesota, 1913; M.A., 1914; Ph.D., Columbia, 1915; William Bayard Cutting Traveling Fellowship, Columbia, 1916. Faculty, Minnesota, 1913-15; Columbia, 1915-16; British Columbia, acting head of department, 1917-20; Oregon, from 1920.

- CHARLES G. HOWARD, B.A., J.D. *Professor of Law*
B.A., Illinois, 1920; J.D., 1922. Practicing lawyer, 1922-27. Faculty, University of Illinois, 1924-28; Oregon, from 1928.
- HERBERT CROMBIE HOWE, B.L., A.B. *Professor of English*
B.L., A.B., Cornell, 1893; graduate scholar in philosophy, Cornell, 1893-95. Faculty, Oregon, from 1901; head of department, 1906-1926.
- RALPH R. HUESTIS, Ph.D. *Associate Professor of Genetics*
B.S.A., McGill, 1914; M.S., California, 1920; Ph.D., 1924; research assistant, Scripps Institution for Biological Research, 1920-24. Faculty, Oregon, from 1924.
- CARL L. HUFFAKER, Ph.D. *Professor of Education*
Central Teachers' College, Oklahoma, 1907-11; B.S., Chicago, 1915; superintendent of schools, Iowa, 1915-22; M.A., Iowa, 1922; research assistant, Iowa, 1922-23; Ph.D., 1923. Faculty, Arizona, 1923-27; Oregon, from 1927.
- WARREN C. HUNTER, M.D. *Assistant Professor of Pathology*
A.B., Albany College, 1920; M.D., Oregon, 1924; M.A., Michigan, 1927. Faculty, Oregon, from 1929.
- JAMES ARTHUR JOHNSTON, M.A. *Associate Professor of Business Administration*
B.S., Mt. Union College, 1905; Ph.C., Pittsburg, 1905; M.A., Iowa, 1925. Faculty, Southwestern (La.), 1920-23; Iowa, 1923-25; Oregon, from 1925.
- C. LYLE KELLY, Ph.B., C.P.A. *Associate Professor of Accounting*
Ph.B., Chicago, 1911; graduate student, Ohio, 1919-20; Nebraska, 1921. Faculty, Nebraska Wesleyan, 1921-22; Oregon, from 1922; associate member, American Institute of Accountants.
- ERNESTO ROY KNOLLIN, M.A. *Associate Professor of Physical Education*
A.B., Stanford, 1914; M.A., 1929; graduate student, Illinois, 1919-21. Instructor in physical education, Stanford, 1915-17; acting director, 1917-18; instructor in coaching school, Illinois, 1919-21. Faculty, Oregon, from 1929.
- EDMUND P. KREMER, Dr. juris utriusque. *Assistant Professor of Germanic Languages and Literature*
University of Freiburg, Baden, 1913-14; University of Munich, Bavaria, 1914; University of Berlin, 1919-20; University of Frankfurt a Main, 1922-24; Dr. juris utriusque, 1924. Faculty, University of Frankfurt a Main, 1925-26; Oregon, from 1928.
- JOHN J. LANDSBURY, Mus.D. *Dean of the School of Music and Professor of Music*
Mus.B., Simpson College, Iowa, 1900; Mus.D., 1909; pupil Max Bruch, Berlin; graduate student, University of Berlin. Faculty, Simpson; Baker University; Oregon, from 1914; present position from 1917.
- OLOF LARSELL, Ph.D. *Professor of Anatomy, School of Medicine, Portland*
B.S., McMinnville College, 1910; graduate student, Chicago; M.A., Northwestern, 1914; Ph.D., 1918. Faculty, McMinnville, 1910-15; Northwestern, 1915-18, 1920-21; Wisconsin, 1918-20; Oregon, from 1921.
- ELLIS F. LAWRENCE, M.S., F.A.I.A. *Dean of the School of Architecture and Allied Arts, Professor of Architecture*
B.S., M.S., Massachusetts Institute of Technology; Fellow, American Institute of Architecture. Honorary president, Oregon Building Congress; past director and vice president, American Institute of Architects; formerly member, Portland Housing Commission, and Portland City Planning Commission. On jury of award for competition for Portland Public Auditorium, Bank of Italy, San Francisco, and War Memorial, Honolulu, Hawaii, and San Francisco Stock Exchange. Faculty, Oregon, from 1914.
- E. C. A. LESCH, Ph.D. *Assistant Professor of English*
B.A., Illinois, 1925; M.A., 1926; Ph.D., Princeton, 1928. Faculty, Oregon, from 1928.
- ALFRED L. LOMAX, M.A. *Professor of Business Administration, Extension Division*
B.B.A., Oregon, 1923; formerly with George Wills & Sons, Ltd. (export merchants); United States Shipping Board; McCarger, Bates & Lively; M.A., Pennsylvania, 1927. Faculty, Oregon, from 1919.
- EDWARD DORRIS MCALISTER, Ph.D. *Assistant Professor of Physics*
B.A., Oregon, 1923; M.A., 1925; Ph.D., California, 1928. Teaching fellow, California, 1925-26, 1927-28; Whiting fellow, California, 1926-27; graduate student, Oregon, 1923-25. Faculty, Oregon, from 1928.
- EDWARD HIRAM MCALISTER, M.A. *Professor of Mechanics and Astronomy*
B.A., Oregon, 1890; M.A., 1893. Faculty, Oregon, from 1891; dean, College of Engineering, 1902-15; head of department, from 1915.

- IRA ALBERT MANVILLE, M.A., M.D. *Associate in Physiology, School of Medicine, Portland*
B.A., Oregon, 1913; M.A., 1922; M.D., 1923. Faculty, Oregon, from 1923.
- FRANK R. MENNE, B.S., M.D. *Professor of Pathology, School of Medicine, Portland*
B.S., Wisconsin; M.D., Rush Medical College. Faculty, Oregon, from 1911.
- JOHN RICHARD MEZ, Ph.D. *Associate Professor of Economics and Political Science*
D.H.H.L., Leipsic, 1906; M.A. and Ph.D., Heidelberg, 1910. Secretary, chamber of commerce, Mannheim, 1908-10; secretary, Institute for International Organization, Munich, 1911-13; national secretary, International Relations Club, New York, 1915-16; correspondent, Conference for Limitation of Armaments, Washington, 1921-22; lecturer, Wm. B. Feakins, Inc., Lecture Bureau, New York Public Lectures, 1923; assistant professor of economics, Arizona, 1924-29. Faculty, Oregon, from 1929.
- WILLIAM EDMUND MILNE, Ph.D. *Professor of Mathematics*
A.B., Whitman, 1912; A.M., Harvard, 1913; Ph.D., 1915. Faculty, Bowdoin, 1915-18; Oregon, from 1919.
- ARTHUR RUSSELL MOORE, Ph.D. *Professor of General Physiology*
B.A., Nebraska, 1904; Ph.D., California, 1911; lecturer, Woods Hole Marine Biology Laboratory, 1916-19; guest, Naples Zoological Station, 1923; table, American Association, Advancement of Science, Naples, 1925; lecturer, general physiology, Hopkins Marine Station, Stanford, from 1926. Faculty, California, 1911-13; Bryn Mawr, 1913-16; Rutgers, 1916-26; head of department of animal biology, Oregon, from 1926.
- VICTOR P. MORRIS, Ph.D. *Assistant Professor of Economics*
B.A., Oregon, 1915; M.A., 1920; Ph.D., Columbia, 1929. Faculty, Grinnell College, 1922-24; Oregon Agricultural College, 1924-26; Oregon, from 1926.
- JOHN H. MUELLER, Ph.D. *Associate Professor of Sociology*
B.A., Missouri, 1920; M.A., 1921; University of Montpellier, France, 1919; graduate student, Chicago, 1922-24, Ph.D., 1923. Faculty, Missouri, 1920-22, 1925-26; Chicago, 1923-25; Oregon, from 1926.
- MICHAEL J. MUELLER, B.F.A., F.A.A.R. *Professor of Painting*
B.F.A., Yale, 1925; F.A.A.R., American Academy, Rome, 1928. Faculty, Oregon, from 1929.
- GUSTAV MÜLLER, Ph.D. *Assistant Professor of Philosophy*
B.A., University of Bern, 1917; M.A., 1920; Heidelberg, 1921; Bern and Florence, Italy, 1921-23; Ph.D., Bern, 1923; University of London, 1923-24. Faculty, Oregon, from 1925.
- HAROLD B. MYERS, M.D. *Professor of Pharmacology, School of Medicine, Portland*
A.B., Wisconsin; M.D., Western Reserve; collaborator, Journal of Pharmacology. Faculty, Oregon, from 1915; associate dean, school of medicine, from 1917.
- WILMOTH OSBORNE, M.D. *University Physician and Medical Consultant for Women*
A.B., Reed, 1918; M.D., Oregon, 1924. Present position from 1925.
- EDWIN E. OSGOOD, M.D. *Assistant Professor of Biochemistry and Medicine, School of Medicine, Portland*
B.A., Oregon, 1923; M.A., M.D., 1924. Student, University of Vienna, 1927-28. Faculty, Oregon, from 1921. Present position from 1929.
- EARL L. PACKARD, Ph.D. *Professor of Geology*
A.B., Washington, 1911; M.A., 1912; fellow in paleontology, California, 1912-14; Ph.D., 1915. Faculty, Washington, 1915-16; Oregon, 1916-17; Mississippi A. & M. College, head of department, 1917-18; Oregon, from 1919; acting head of department, 1920-22.
- MABLE HOLMES PARSONS, M.A. *Professor of English, Portland Extension Center*
A.B., Michigan, 1904; M.A., 1905. Faculty, Oregon, from 1912.
- PHILIP ARCHIBALD PARSONS, Ph.D., LL.D. *Dean, School of Applied Social Science, and Head of the Department of Sociology*
A.B., Christian University, Missouri, 1904; M.A., 1905; student, Union Theological Seminary, 1904-06; graduate student, Columbia, and research fellow, School of Philanthropy, 1908-09; Ph.D., 1909; LL.D., Culver-Stockton College, 1927. Faculty, Syracuse, 1909-20; director of university settlement, Syracuse; lecturer, Department Immigrant Education, State of New York, 1912-13; director of Portland School of Social Work, 1920-27; dean, Portland School of Social Work, 1927-29; present position, from 1929.
- MARY HALLOWELL PERKINS, M.A. *Professor of English*
B.A., Bates, 1898; M.A., Radcliffe, 1908; graduate student, Columbia, 1916-17; University of London, 1925-26. Faculty, Oregon, from 1903.

- ALFRED POWERS, B.A. *Dean of Extension Division, Director of Portland Center, Professor of Journalism*
B.A., Oregon, 1910. Faculty, Oregon, 1917; U. S. Army, 1918-19; director of public information and Junior Red Cross, Northwestern division, American Red Cross, 1919-20; University editor, school of journalism, 1920-22; assistant director, extension division, 1922-26; present position from 1926.
- JOHN M. RAE, M.B.A. *Associate Professor of Business Administration*
Ph.B., University of Wisconsin, 1923; M.B.A., Harvard, 1928. Faculty, Oregon, from 1928.
- JAMES MELVIN REINHARDT, Ph.D. *Assistant Professor of Sociology*
B.A., Berea College, Kentucky, 1923; M.A., North Dakota, 1925; Ph.D., 1929; graduate student, Chicago, summer sessions, 1924, 1925. Part-time instructor in sociology, North Dakota, 1924-25; instructor in sociology, 1925-27; assistant professor in sociology, 1927-28; professor of sociology, Morris Harney College, West Virginia, 1928-29. Faculty, Oregon, from 1929.
- KURT REINHARDT, Ph.D. *Assistant Professor of Germanic Languages and Literature*
University of Munich; University of Heidelberg; University of Freiburg, Ph.D., 1922. Editor, Herder Publishing Company, Freiburg (Germany), 1922-25; Zuerich (Switzerland), 1926; correspondent, Canada, 1927. Faculty, University Extension, University of Freiburg, 1923-25; University of Zuerich, 1926; Oregon, from 1928.
- HUGH E. ROSSON, B.S., LL.B. *Associate Professor of Law*
B.S., Knox, 1916; LL.B., Iowa, 1920. Faculty, Kansas State Agricultural College, 1921-23; Oregon, from 1923.
- ETHEL L. SANBORN, Ph.D. *Assistant Professor of Plant Biology*
B.S., South Dakota State College, 1903; B.A., South Dakota, 1904; M.A., 1907; Ph.D., Stanford, 1928. Faculty, Oregon, from 1918.
- FRIEDRICH GEORG G. SCHMIDT, Ph.D. *Professor of Germanic Languages and Literature*
Student, University of Erlangen, Bavaria, 1888-1890; Johns Hopkins, university scholar and fellow, 1894-96; Ph.D., 1896. Faculty, Cornell College, 1896-97; head of department of modern languages, Oregon, 1897-1905; head of department of German, from 1906.
- WALDO SCHUMACHER, Ph.D. *Professor of Political Science*
B.A., Bluffton, 1917; M.A., Ohio State, 1918; assistant and fellow in political science, Wisconsin, 1921-23; Ph.D., 1923. Faculty, Bluffton College, 1919-21; Syracuse University, 1923-25; Grinnell College, 1925-26; Oklahoma, 1926-28; Oregon, from 1928.
- HARRY J. SEARS, Ph.D. *Professor of Bacteriology, School of Medicine, Portland*
A.B., Stanford, 1911; A.M., 1912; Ph.D., 1916; student, Chicago. Faculty, Stanford, 1911-12, 1918-16; city bacteriologist and chemist, Berkeley, Calif., 1917-18. Faculty, Oregon, from 1918; president, Oregon branch of Society of American Bacteriologists.
- ROBERT HOLMES SEASHORE, Ph.D. *Associate Professor of Psychology*
B.A., Iowa, 1923; M.S., 1924; Ph.D., 1925. Faculty, Ohio State University, 1925-26; National Research Council fellow in biological sciences, Stanford University, 1926-28. Faculty, Oregon, from 1928.
- HENRY DAVIDSON SHELDON, Ph.D. *Dean of the School of Education and Professor of Education and History*
A.B., Stanford, 1896; A.M., 1897; Ph.D., Clark, 1900; student, Leipzig, 1911-12. Faculty, Oregon, 1900-11; Pittsburg, 1912-14; Oregon, from 1914; chairman, administrative committee of University, 1924-26.
- FREDERICK LAFAYETTE SHINN, Ph.D. *Professor of Chemistry*
B.A., Indiana, 1901; M.A., 1902; scholar, Yale, 1902; Ph.D., Wisconsin, 1906. Faculty, Wisconsin, 1902-04, 1905-07; Indiana, 1904-05; Oregon, from 1907; acting head of department, 1918-22.
- CLARA MILLER SMERTENKO, Ph.D. *Associate Professor of Latin and Greek*
A.B., Grinnell College, 1895; Ph.D., Chicago, 1902; Berlin, 1906-07. Faculty, Grinnell College, 1908-19; Columbia University, 1920-22; Skidmore College, 1923-25; Oregon, from 1927.
- S. STEPHENSON SMITH, B.Litt. (Oxon) *Associate Professor of English*
A.B., Reed College, 1915; B.Litt., Oxford, England, 1923. Faculty, Oregon, from 1925.
- WARREN DU PRE SMITH, Ph.D. *Professor of Geology*
B.S., Wisconsin, 1902; M.A., Stanford, 1904; fellow in geology, Chicago, 1904-05; Ph.D., Wisconsin, 1908; head of department, Oregon, from 1914; geologist and chief of division of mines, bureau of science, Manila, 1905-14, 1920-22.
- VERNON G. SORRELL, Ph.D. *Assistant Professor of Economics*
A.B., Iowa, 1922; A.M., Illinois, 1924; Ph.D., California, 1929. Assistant in sociology, Illinois, 1923-24; instructor in economics, State Normal University, Illinois, summer session, 1924; assistant professor of economics, St. Mary's College, California, 1926-29. Faculty, Oregon, from 1929.

- CLARENCE WILEY SPEARS, M.D. *Professor of Physical Education; Head Football Coach, and Physician in the University Health Service*
B.S., Dartmouth, 1917; M.D., Rush Medical College, Chicago, 1921. Freshman football coach, Dartmouth, 1916; head coach, 1917, 1919-20; head football coach, West Virginia, 1921-24; professor of physical education and head football coach, Minnesota, 1925-30. Faculty, Oregon, from 1930.
- CARLTON E. SPENCER, A.B., J.D. *Professor of Law*
A.B., Oregon, 1913; LL.B., 1915; J.D., 1925. Secretary and instructor, Oregon Law Department, Portland, 1913-17; registrar, Oregon, 1919-27. Faculty, Law School, 1923-24. Present position from 1927.
- ORIN FLETCHER STAFFORD, A.M. *Professor of Chemistry*
A.B., Kansas, 1900; A.M., 1902; graduate student, Nernst laboratory, Berlin, 1908-09. Faculty, Oregon, from 1900; head of department from 1902.
- FRED L. STETSON, M.A. *Professor of Education*
B.A., Washington, 1911; M.A., 1913; research scholar, Teachers' College, 1919-20. Faculty, Washington, 1912-13; Oregon, from 1913; director of summer session, Eugene, 1924-26.
- JOHN STRAUB, Lit.D. *Emeritus Dean of Men; Professor of Greek Language and Literature*
B.A., Mercersburg, 1876; M.A., 1879; Lit.D., Franklin and Marshall, 1913. Faculty, Oregon, from 1878; dean of the College of Literature, Science, and the Arts, 1899-1920; dean of men, 1920-25.
- ALBERT RADDIN SWEETSER, M.A. *Professor of Plant Biology*
B.A., Wesleyan, 1884; M.A., 1887; graduate student, Massachusetts Institute of Technology, 1884-85; Harvard, 1893-97. Faculty, Radcliffe, 1896-97; Pacific University, 1897-1902; Oregon, from 1902; head of department, from 1909.
- HOWARD RICE TAYLOR, Ph.D. *Associate Professor of Psychology*
A.B., Pacific University (Ore.), 1914; A.M., Stanford, 1923; Cubberly fellow, Stanford, 1924-25; Ph.D., 1927. Faculty, Oregon, from 1925.
- W. F. G. THACHER, M.A. *Professor of English and Advertising*
A.B., Princeton, 1900; M.A., 1906; graduate student, Chicago, 1906; associate editor of Pacific Monthly, 1902-04. Faculty, Oregon, from 1914.
- ELNORA E. THOMSON, R.N. *Professor of Applied Sociology; Director of Nursing Education*
Executive secretary, Illinois Society for Mental Hygiene; director of Public Health Nursing Course, Chicago School of Civics and Philanthropy; member of American Red Cross Tuberculosis Commission to Italy, 1918-19; director of Far Western Extension Office, American Child Health Association, 1923-25; director of Nursing Service, Marion County Child Health Demonstration, from 1925; present position, 1921-23, and from 1925.
- HARRIET W. THOMSON, A.B. *Professor of Physical Education*
A.B., Michigan, 1904; graduate student, 1904-05; assistant in Orthopaedic Hospital-School, 1922. Faculty, Oregon, from 1911.
- H. G. TOWNSEND, Ph.D. *Professor of Philosophy*
A.B., Nebraska Wesleyan University, 1908; Ph.D., Cornell, 1913; Sage fellow in philosophy, Cornell. Faculty, Central College, 1910-14; Smith College, 1914-26; Oregon, from 1926.
- GEORGE TURNBULL, A.B. *Professor of Journalism*
A.B., Washington, 1915; editorial staff, Seattle Post-Intelligencer, 1905-16; Seattle Times, 1916-17. Faculty, Oregon, from 1917.
- REX UNDERWOOD *Professor of Music*
Chicago Musical College, pupil Joseph Olheizer, 1904-06; Leipzig Conservatory, pupil, Hans Becker, 1907-09; Royal Bavarian School of Music, Wurzburg, pupil of Walter Schulze-Prisca, 1910; pupil, Michael Press, Berlin, 1911; studied in London, 1912; with Leon Sametion, and Eric Delamartre, Chicago, 1924; with Remy, Fountainbleau, 1925; violin virtuoso diploma, Fountainbleau, 1925. Concert violinist and teacher, 1913-19; faculty, Oregon, from 1919.
- F. MIRON WARRINGTON, Diplôme de l'Université de Paris. *Professor of Business Administration, Portland Extension Center*
Upper Canada College, Toronto, 1897; French interpreter, Canadian federal courts, 1900-08; student, University of Mexico, 1916-17; student, University of Madrid, 1921; diplôme de l'Université de Paris, 1922; instructor, Portland Center, 1918. Present position, from 1919.
- W. R. B. WILLCOX, F.A.I.A. *Professor of Architecture*
Three and a half years, Kalamazoo College, Mich.; University of Pennsylvania, 1893-94; European study, 1907. Practicing architect, Burlington, Vermont, 1894-1906; Seattle, Wash., 1908-22; faculty, Oregon, from 1922. Fellow, American Institute of Architects; director, 1914-17; chairman, city planning committee, 1915; vice president, 1918; jury of fellows, 1923-26.

- ROGER JOHN WILLIAMS, Ph.D. Associate Professor of Chemistry
B.S., Redlands, 1914; M.S., Chicago, 1918; Ph.D. (magna cum laude), 1919. Research chemist, The Fleischmann Co., 1919-20. Faculty, Oregon, from 1920.
- GEORGE WILLIAMSON, Ph.D. Assistant Professor of English
B.A., Stanford, 1920; M.A., Harvard, 1925; Ph.D., Stanford, 1928; instructor in English, Washington State College, 1920-22; assistant professor of English, Washington State College, 1923-25. Faculty, Pomona College, 1925-27; instructor and graduate student, Stanford University, 1927-28. Faculty, Oregon, from 1928.
- LOUIS AUBREY WOOD, Ph.D. Associate Professor of Economics
B.A., Toronto, 1905; B.D., Montreal Presbyterian College, 1908; Ph.D., Heidelberg, 1911. Faculty, Robertson College, Alberta, 1912-13; University of Western Ontario, 1914-23. Sterling research fellow, Yale, 1928-29. Faculty, Oregon, from 1924.
- LEAVITT OLDS WRIGHT, Ph.D. Associate Professor of Romance Languages
A.B., Harvard, 1914; B.D., Union Theological Seminary, 1917; M.A., California, 1925; Ph.D., 1928; graduate student, Teachers' College, 1915-17; California, 1924-26. Faculty, Columbia, 1916-17; Pomona College, 1917-18, 1921-24; director, del Colegio Internacional, Guadalajara, Mexico, 1918-21. Faculty, Oregon, from 1926.
- ROSALIND WULZEN, Ph.D. Assistant Professor of Animal Biology
B.S., California, 1904; M.S., 1910; Ph.D., 1914. Faculty, Mills College, 1909-13; California, 1914-28; Oregon, from 1928.
- HARRY BARCLAY YOCOM, Ph.D. Professor of Zoology
A.B., Oberlin, 1912; graduate assistant in zoology, California, 1915-17; M.A., California, 1916; Ph.D., 1918. Faculty, Wabash, 1912-13; Kansas Agricultural, 1913-15; Washburn, 1917-18; College of City of New York, 1919-20; Oregon, from 1920.
- NOWLAND B. ZANE. Associate Professor of Design
Drexel Institute, 1912-14; Art Institute of Chicago, 1914; Penn State College, 1915-19; Pennsylvania Academy of Fine Art, 1916; art instructor, Portland public schools, and University Extension Center. Faculty, Oregon, from 1924.

TEACHING FELLOWS

- ALICE BAHR, M.A., California, 1926; Animal Biology; Loomis, California.
JOHN DEWITT DAVIS, B.A., Idaho, 1913; Education; Moscow, Idaho.
ROLLAND J. MAIN, B.S., Rutgers College, 1927; Animal Biology; Perth Amboy, N. J.
IRVING MATHER, B.S., Oregon State College, 1920; Education; Eugene.
CHARLES TENNEY, M.A., Oregon, 1929; English; Gooding, Idaho.
RALPH LEIGHTON, B.A., College of Idaho, 1926; Education; Eugene.
WILLIAM D. WILKINSON, B.A., Oregon, 1923; Geology; The Dalles.
RICHARD ROEHM, B.S., Oregon, 1928; Chemistry; Eugene.
WAYNE WOODMANSEE, M.A., Oregon, 1929; History; Eugene.

GRADUATE ASSISTANTS

- GRACE ASH, B.A., Oregon, 1928; Architecture and Allied Arts; Rupert, Idaho.
FRANCES BACON, B.A., Oregon, 1929; English; Bellingham, Washington.
FARRELL BARNES, B.A., Oregon, 1929; Geology; Prineville.
LEWIS BEESON, B.A., Oregon, 1927; History; Eugene.
NELLIE G. BEST, B.A., Oregon, 1929; Architecture and Allied Arts; Portland.
ELIZABETH BRADWAY, B.A., Oregon, 1928; Chemistry; Eugene.
RAYMOND W. BRESHEARS, B.A., Oregon, 1928; Business Administration; Eugene.
MALCOLM CAMPBELL, E.A., Reed College, 1928; Psychology; Portland.
HELEN CROZIER, B.S., Montana State College, 1928; Mathematics; Bozeman, Montana.
EDWARD G. DANIEL, B.A., Oregon, 1929; Economics; Elkton.
LAURANCE DERUYCKE, B.B.A., Oregon, 1929; Business Administration; Eugene.
DOROTHY DELZELL, B.A., Oregon, 1928; English; Salem.
*JEANNETTE EDGE; Animal Biology; Eugene.
MARTIN ERICKSON, B.A., Oregon, 1928; Romance Languages; Eugene.
DONALD EVANS, B.A., Linfield College, 1926; Chemistry; Eugene.
CARL FURR, B.S., Utah State Agricultural College, 1929; Romance Languages; Mesa, Arizona.
FRED GERKE, B.A., Oregon, 1930; Business Administration; Portland.
CHARLES GOODWIN, B.S., Oregon State College, 1927; Physics; Corvallis.
PHYLLIS GOVE, B.S., Utah, 1928; Physical Education; Salt Lake City, Utah.
FRANKLIN HALL, B.A., Oregon, 1927; Economics; Eugene.
JOSEPHINE HOWARD, B.A., Oregon, 1930; Music; Portland.
MYRTLE HUBBARD, B.A., Lake Forest College, 1928; English; Libertyville, Illinois.
RUTH JACKSON, B.A., Oregon, 1929; English; Eugene.
BERTRAM JESSUP, B.A., Oregon, 1927; English; Portland.
GERALD JENSEN, B.A., Utah, 1929; Education; Cleveland, Utah.
EWART JEWELL, B.A., Albany College, 1929; Mathematics; Portland.
FLORENCE JONES, B.A., Oregon, 1928; English; Salem.
FRANCIS JONES, A.B., Pacific University, 1928; Chemistry; Forest Grove.
MARY KIRKWOOD, B.A., Montana, 1926; Architecture and Allied Arts; Missoula, Montana.
VASILY KNIASEFF, M.S., Oregon, 1928; Biology; Eugene.

- JACK M. J. LA FORGE, A.B., Indiana State Teachers' College, 1924; Romance Languages; North Manchester, Indiana.
MRS. EUNA LANDROS, M.A., Arizona, 1923; Latin; Tucson, Arizona.
HERSCHEL LANDRU, B.A., Oregon, 1928; History; Eugene.
MARJORIE LANDRU, B.A., Oregon, 1929; Physical Education; Eugene.
ELSIE McDOWALL, B.A., Montana, 1926; English; Exeter, California.
ELSIE MOLLER, B.A., Oregon, 1929; Mathematics; Myrtle Point.
ELIZABETH MORWOOD, B.A., Cambridge University, 1929; English; Belfast, Ireland.
LILLIAN B. PATTERSON, B.A., Oregon, 1928; Biology; Klamath Falls.
J. ROLLO PATTERSON, B.S., Oregon, 1928; Biology; Eugene.
ERIC PETERSON, B.S., Oregon, 1928; Physics; Lakeview.
EDA PRIEST, B.A., Washington State College, 1928; Psychology; Pateros, Washington.
FRANK ROUBAL, B.A., Oberlin College, 1919; Education; Lakewood, Ohio.
JOHN SCHEFFER, B.A., Oregon, 1928; English; Portland.
GRACE SMITH, B.A., Carleton College, 1929; Philosophy; Monte Vista, Colorado.
*CELIA STODDARD; English; Baker.
WILLIAM SWEET, B.S., Pacific College, 1929; Chemistry; Newberg.
JOHN TRUESDAIL, B.A., University of Redlands, 1928; Chemistry; Eugene.
HILBERT UNGER, B.A., Reed College, 1928; Physics; Portland.
JAN VAN DER VATE, B.A., Whitman College, 1923; History; Bellingham, Washington.
ROBERT WALKER, B.A., Oregon, 1929; Psychology; Eugene.
HILDA WANKER, B.A., Oregon, 1929; Architecture and Allied Arts; Portland.
SAMUEL WHONG, B.S., Huron College, 1927; Biology; Syun Chun, Korea.
BURFORD WILKERSON, A.B., Pacific University, 1929; Chemistry; Vernonia.
RUTH WINCHELL, B.A., Reed College, 1926; Chemistry; Portland.
ELIZABETH WYLAND, B.A., California, 1929; Social Science; Santa Rosa, California.

RESEARCH ASSISTANTS

- JOHN W. BUTLER, B.A., Oregon, 1929; Geology; Marshfield.
*RONALD HUBBS; Business Administration; Silverton.
ROBERT F. JACKSON, B.A., Oregon, 1929; Mechanics; Eugene.
ELIZABETH PERRY, B.A., Mt. Holyoke College, 1929; Animal Biology; Worcester, Mass.
DEETTA ROBERT, B.A., Oregon, 1928; Education; Eugene.
ELSIE SINCLAIR, B.A., Mt. Holyoke College, 1929; Cedar Rapids, Iowa.
THEODORE VAN GUILDER, B.A., Oregon, 1926; Business Administration; Portland.

* To be granted B.A. degree from Oregon, June, 1930.

GENERAL INFORMATION

HISTORICAL

In the earlier years of the University, the degree of master of arts was frequently conferred "in course" upon bachelors of arts of three years standing who had met certain other conditions. This practice, which was at that time fairly common among colleges and universities all over the country, was discontinued about 1893. Beginning with the year 1897, the degrees of master of arts and master of science were offered for a year of resident graduate study under definitely specified conditions. Since that date these degrees have been conferred for such resident study, at first occasionally, but later with steadily increasing numbers. With the growth of the summer school, and the extension work of the University, the opportunity to earn these degrees has been given to many of the citizens of the state who could not well have met the conditions of a continuous year of residence at the University. Of recent years, also, the degree of master of arts in research and public service has been conferred upon men and women who have rendered conspicuous service to the state in ways that evidence high and fruitful scholarship, and in the production and publication of books and scholarly papers of value.

The catalog of 1900 announced the willingness of the University to confer the degree of doctor of philosophy, and gave a statement of the conditions under which it might be earned. This offer was soon withdrawn, as the resources of the institution and its prestige were at that time hardly such as to make possible the realization of such an ambition. More recently, with increasing financial resources, many times larger faculty, and material resources which have grown with the years, the University has again announced its willingness to undertake the training of students for this degree, and is giving the doctorate in a limited number of departments.

The year 1899-1900, which was notable in the history of the University as the time of its organization into constituent schools, saw also the organization of graduate work by the appointment of a dean of the Graduate School, and of a graduate council, of which the dean was the chairman. To this council has been entrusted since that time the administration of the Graduate School, subject to the general supervision of the University faculty and the more immediate co-operation of the graduate faculty.

LOCATION

The University of Oregon is located in Eugene, a small but modern city at the head of the Willamette valley. Most of the work of the Graduate School is given on the campus, though a few graduate courses are given through the Portland extension center in the city of Portland. Eugene is conveniently placed on through lines of railroad and highway, and has a mild and equable climate.

FACILITIES FOR GRADUATE STUDY

The period since the organization of the Graduate School has been one of rapid growth and development in the University. Department personnels have grown from a single member to considerable groups representing the scholarship and training of many institutions, departmental equipments have been developed with expanding needs and expanding vision, and library collections have been gathered with a view to the needs

of the graduate students and research workers of future years. The University is committed to the policy of encouraging graduate work, and undertakes to reserve a sufficient portion of the instructor's time for advanced instruction and research, and provide necessary facilities for this type of work as a means of maintaining the standards of its own scholarship. In furtherance of this purpose, considerable provision is made of special space in the library, and of special research rooms in the scientific laboratories.

RESEARCH FACILITIES

In his choice of a graduate school, the advanced student considers not only the cost and convenience of location, but also the quality of instruction, and the opportunities for scholarly research in advanced fields. The Graduate School at the University of Oregon offers substantial opportunities in the field of research. Alive to the vital importance of research in a graduate school, the administration of the University makes an annual appropriation devoted solely to the promotion of research, to provide equipment, clerical help, and other assistance for members of the staff engaged in original investigations. The control of this appropriation is invested in a committee of faculty, the function of which is to aid in every way possible the production of scholarly work. Each year a creditable list of memoirs and monographs in advanced fields is produced by the faculty. Graduate students also are making original contributions to knowledge and their results are being published in scientific journals. The advanced student coming to Oregon will find the Graduate School imbued with the spirit of research, a faculty engaged in research, and a university officially promoting research.

THE UNIVERSITY LIBRARY

The University library is a well-selected and steadily growing collection, now numbering about 210,000 volumes. It is well equipped for the undergraduate work of the University and is each year making some progress in securing materials needed for advanced research.

The library is supplied with the standard general and special reference books and with the files of the principal American and foreign periodicals of general interest as well as those of special value in connection with the work of the various departments of instruction. It receives regularly about 2395 periodicals and 170 newspapers. There is available each year from various sources for books, periodicals, and binding, about \$38,000. During the past twenty years a total of more than \$340,000 has been expended for additions to its resources of books and periodicals.

Among the special collections in the main library are: the Pauline Potter Homer collection of beautiful books, a "browsing" collection of 650 volumes; the Oregon collection of books, periodicals, pamphlets, documents, etc., by Oregon authors or relating to the state; the University of Oregon collection of items having to do with the University; the textbook collection numbering about 2,000 volumes of school and college text-books, new and old; the F. S. Dunn collection of 500 volumes of historical fiction illustrating life from prehistoric times to the Norman conquest; and the Camilla Leach collection of art books.

The law library of 18,175 volumes shelved in the law building includes substantial gifts from the libraries of Lewis Russell, Judge Matthew P. Deady, and the Kenneth Lucas Fenton Memorial library of 8,000 volumes given by Judge W. D. Fenton in memory of his son.

The Oregon Museum Oriental library of 1,500 volumes was presented

by Mrs. Gertrude Bass Warner, and is maintained by her in connection with the Oregon Museum of Fine Arts. It includes rare and valuable books and periodicals dealing with the history, literature, civilization, and especially the art of China, Japan and other Oriental countries.

A reference collection for the use of students of architecture is provided in the architecture building. Mr. Ion Lewis, prominent Portland architect, in 1929 presented his valuable architectural library to the University of Oregon School of Architecture and Allied Arts. This is the nucleus of a permanent collection for the school.

Collections of books for required reading are maintained in the main library, in Condon hall, and in the school of business administration.

During the regular session the library is open each week day from 7:30 a. m. to 10 p. m., and on Sunday from 2 to 10 p. m. Vacation hours are from 8 a. m. to 6 p. m. Books other than reference books and those especially reserved for use in the library may be drawn out for a period of one month subject to renewal if there is no other demand for them. All persons connected with the University have the privilege of drawing books and the use of the library for reference purposes is extended to the general public as well. Books that can be spared from the University are also loaned for a month at a time to other libraries, to superintendents and principals of Oregon schools, to alumni of the University, and to responsible individual citizens of the state.

THE UNIVERSITY MUSEUMS

The *Biological Museums* are located in Deady Hall. For plant biology the department is well supplied with mounted specimens, especially those collected from Oregon and the Pacific Northwest. It includes the Howell collection of 10,000 specimens, the Leiberg collection of 15,000 sheets, the Cusick of 7,000, and the Edmund P. Sheldon and Kirk Whitehead collections.

For animal biology, a considerable series of mounted and unmounted specimens are available. These include birds and mammals collected by Mr. Alfred Shelton as a beginning of a state biological survey; a collection of Oregon reptiles, made by Mr. J. R. Weatherbee; a series of fishes, mostly salmonidae from the Columbia river, donated by the United States government; a collection of food fishes of the Oregon coast, made by Mr. J. B. Bretherton, of Newport, Oregon, and presented to the University; and a number of birds and mammals, collected and presented by Dr. A. G. Prill, of Seio, Oregon.

The *Condon Geological Museum* includes the Condon cabinet, which represents the life work of the late Dr. Thomas Condon, the first professor of geology of the University and a member of its first faculty. This collection is especially rich in vertebrate fossils from the John Day valley. It also contains good working collections of minerals.

The *Oregon Museum of Fine Arts*, housed at present in Gerlinger hall, includes the Murray Warner Memorial collection, given to the University in 1920 by Mrs. Warner, to which considerable additions have been made during the six expeditions. Mrs. Warner has since made to the Orient, purposely to collect for it. The Millican collection of Indian basketry and weaving, given by Mrs. Ada B. Millican, is also kept here.

The Murray Warner collection is especially distinguished by the rarity and the perfect preservation of the objects composing it. Included are about 450 Japanese prints of various periods; a group of rare Chinese wall paintings; paintings on silk and tapestries; a number of ancient bronzes; armor, porcelains, china, embroideries, textiles and weavings;

carvings of wood, ivory, jades and turquoise; and exhibits from Korea, Mongolia and Cambodia, in addition to the many from Japan and China. Especially interesting is the display of costumes on figures and in cases which contains antique Manchu robes heavily embossed with gold and silver threads, several mandarin and imperial coats, rich in Chinese symbolism, as well as other interesting examples of ancient garments. A well selected library, including books on the art of Egypt, Persia, Cambodia, Siam, Java and Russia, in addition to China and Japan, in connection with the museum, gives special facilities for research. Until the completion of the contemplated Fine Arts building, only about one-fourth of the collection can be on view.

THE UNIVERSITY LABORATORIES

The *Biological Laboratories* are equipped with the necessary appliances for research and advanced work in systematic biology, plant and animal physiology, advanced zoology, comparative anatomy, genetics and bacteriology. Besides several research rooms for advanced students, the departments of animal biology and plant biology possess a research laboratory building accommodating fifteen students for special lines of research, with excellent quarters for animals in detached buildings.

The *Chemical Laboratories* include rooms devoted to special branches of the science, such as analytical work and organic chemistry, besides a number of smaller rooms available for research work. Other available requisites for effective work are the stock-room, well supplied with standard apparatus and necessary materials; the departmental shop for the construction of special apparatus for research; and a working library in the office of the department.

The *Geological Laboratories* provide facilities for various lines of work. For work in mineralogy and petrology there are good working collections and apparatus for preparing and studying thin sections of rock under petrographical microscopes. For work in paleontology the Condon collection provides material especially from the more important fossiliferous regions of the state. The department also has the necessary equipment for work in economic geology and is adequately supplied with equipment for advanced work in geography.

"Quartz Hall," a small frame building which gives additional facilities for the department, is supplied with special equipment and dark room for research work on the part of advanced students.

The *Physical Education Laboratories* in the Physical Education buildings are supplied with special equipment for work in corrective and individual gymnastics. There are, in addition, extra facilities in the University Health Service where special attention is paid to physiotherapy. The laboratories of the department of animal biology are open to students for physiology and research along these lines.

The *Physical Laboratories* include a number of rooms devoted to advanced courses and research work. The seminar room contains a working departmental library. The department has special facilities for research in the thermal and electrical properties of metals, and the phenomena associated with electrical currents of high frequency and high potentials.

The *Psychology Laboratories* are located in the new science building, Condon hall. Special rooms are reserved for advanced laboratory and

experimental work in general and applied psychology. Four additional rooms are reserved for research purposes only, besides those assigned to the members of the departmental staff. The laboratories are equipped throughout with 110 v. A. C. and 6 v. D. C., timed 6 v. circuit, and with gas and compressed air.

GYMNASIUM AND PLAYING FIELDS

The gymnasiums and recreational equipment of the University are open to graduate students, as to other students of the University, without extra fees.

HEALTH SERVICE

Graduate students have the benefit of the University health service, which includes dispensary and infirmary service. At the dispensary a trained nurse in continuous attendance, and University physicians and assisting specialists keep regular office hours. The dispensary service is free to all students of the University, though there is a small fee for the medical supplies used.

The infirmary maintains a regular hospital service, and in case of sickness provides free care and attention for students for a limited period. Beyond this the charges are very moderate. The dispensary and infirmary service does not extend, however, to cases requiring the services of outside specialists, or involving major operations or chronic diseases.

THE SUMMER SESSION

The University offers a considerable number of graduate courses at each summer session. So far as is practicable, the courses are designed in sequence so that the student may pursue a coherent program of work through a series of summer sessions, and the needs of faculty members of colleges and normal schools are definitely borne in mind.

The regular summer sessions, held simultaneously at Eugene and Portland, are six weeks in length. The 1930 session begins June 23. At Eugene, a post session of four weeks from August 4 to August 29, offers work in education, economics, English, history, and psychology.

A special bulletin is published each year in which the summer courses are announced. Students contemplating work in a summer session may obtain this bulletin upon application to the registrar.

THE EXTENSION DIVISION

Certain courses given in the Portland extension center may be accepted toward a master's degree either as major or minor work. These courses will be found under the heading of the Portland extension courses, according to the department in which they are given, in the section containing the description of courses.

No graduate courses are established in extension centers outside of Portland unless at least ten students signify their desire to enroll in such a course. No other courses in such centers shall receive graduate students for graduate credit.

No graduate credit can be earned by correspondence.

GRADUATE WORK IN PROFESSIONAL SCHOOLS

In the professional schools, such as business administration, law, and so on, the courses of which do not appear in the regular offerings of the Graduate School, certain courses are recognized as appropriate material for a minor toward the M.A. or the M.S. The student in these courses

specializes in some phase of research in the field, as distinct from professional competency alone.

In the schools of architecture and allied arts and music, the student of adequate creative ability may work either toward the degrees of master of arts or science, or that of master of fine arts.

WORK FOR PROFESSIONAL DEGREES

Special professional degrees of advanced character are also given in certain of the professional schools of the University. The school of architecture has a course leading to the degree of master of architecture; the school of business administration gives the degree of master of business administration to graduates for work of a special professional character; while the school of law and school of medicine offer the degrees of doctor of jurisprudence and doctor of medicine for advanced technical work in their respective fields. Information concerning this work may be obtained from the deans of the various schools.

FINANCIAL

All graduate students not members of the instructional staff pay in three installments of \$19.00 each, the University registration fee for each year in which they do resident work. Members of the instructional staff, including graduate assistants, registering for graduate work, pay a registration fee of \$11.00 each term. Laboratory fees are given in detail in the schedule of courses published at the beginning of each year. Graduate students are exempt from the non-resident fee.

The fees for graduate work done in summer session or in the Portland extension center are ordinarily the same as for undergraduate courses, and are announced in their special bulletins.

ASSISTANTS AND FELLOWS

The University has established assistantships of several ranks for graduate students taking their major or minor work in various of the departments or schools. The *graduate assistantship* in a department or school ordinarily pays \$500.00 a year on first appointment, subject to an increase to \$600.00 a year on re-appointment. The duties of a graduate assistant will require from sixteen to twenty hours a week of the student's time, in laboratory or quiz section supervision, correction of papers, or assistance in departmental research; the graduate council recommends that students holding these assistantships should not register for more than eight hours of class work and does not permit them to carry more than ten hours. Such students ordinarily seek re-appointment and take two full years of work for the master's degree.

Research assistantships pay \$500.00 a year. They are subject to the same restrictions as to amount of work required and the number of hours permitted in courses as the graduate assistantships. The research fellowship is awarded through the graduate council and the research committee; the duties of a research fellow are to assist in the research problem to which he has been assigned under the direction of the faculty member conducting the project.

Part-time graduate assistantships, involving service as readers, laboratory assistants, or other minor positions, are also open to graduate students. These carry a smaller stipend and fewer hours of work.

Teaching fellowships commonly pay from \$750 to \$1,100 a year and

are open to persons with some degree of advancement in their graduate work, preferably to those who have the master's degree.

Research fellowships pay \$750 a year upwards and *research assistantships* \$500.00 a year.

Those interested in securing any of these positions should write to the dean of the Graduate School. *Applications for any of these positions should be accompanied by a transcript of credits from the institution where the bachelor's degree was obtained, and of any graduate work taken by the applicant.*

ORGANIZATION OF THE GRADUATE SCHOOL

The graduate school controls all graduate work leading to other than strictly professional degrees. The general administration and oversight of the work of the school is in the hands of the graduate council. The school is divided into four divisions, each under the supervision of a divisional council entrusted with the task of working out the special programs and standards of study within the boundary lines of its disciplines. The divisional councils also supervise departmental programs including requirements, prerequisites, theses and examinations as well as the programs for individual students. The formulation of departmental programs, both general and for individual students, rests with the departments.

The four divisions of the Graduate School are:

1. **Natural Science:** Including the departments of Chemistry, Geology and Geography, Mathematics, Mechanics and Astronomy, Physics; Animal Biology, Plant Biology, Physical Education,* Psychology.
2. **Medicine.**
3. **Language and Literature and Fine Arts:** English, Germanic Languages, Greek, Latin, Romance Languages, Art,* Music.*
4. **Social Science:** Business Administration,* Economics, Education,* History, Journalism,* Law,* Philosophy, Political Science, Sociology.

* In their relation to the work of the graduate school the professional schools rank as departments.

The departments officially recognized by the graduate council as equipped to give major work for the degrees of master of arts and master of science are:

Anatomy (Medical School)	Latin
Bacteriology and Hygiene (Medical School)	Mathematics
Biochemistry (Medical School)	Mechanics and Astronomy
Animal Biology	Music
Plant Biology	Pathology (Medical School)
Chemistry	Pharmacology (Medical School)
Economics	Philosophy
Education	Physical Education
English	Physics
Geology and Geography	Physiology (Medical School)
German	Political Science
Greek	Psychology
History	Romance Languages
Journalism	Sociology

The departments giving work for the master of fine arts degree are as follows:

Architecture	Design
Painting	Sculpture
Music	

At present the graduate school recognizes as prepared to accept candidates for the degree of doctor philosophy the following departments:

Anatomy (Medical School)	History
Biology	Pharmacology (Medical School)
Education	Physics
English	Psychology
Geology and Geography	Romance Languages
Germanic Languages	

ADMISSION

Graduates of standard colleges and universities are admitted to the graduate school by the registrar upon presentation of an official transcript of the credits upon which their bachelor's degree is based. But admission to candidacy for an advanced degree is determined only after a preliminary examination, given when a student has completed a material amount of graduate work.

Graduates of other than standard universities and colleges are expected to obtain the bachelor's degree from a standard institution before proceeding to graduate work.

Graduates of standard colleges and universities who desire to take additional work either of graduate or undergraduate character, without seeking an advanced degree, may be admitted to the graduate school and enjoy the privileges and exemptions of that school.

DEGREES GRANTED

In all the departments of the graduate school the degrees of master of arts and master of science are offered. Students who have the bachelor of science degree will proceed to the degree of master of science unless they have fulfilled the language requirement for the bachelor of arts degree, in which case they may become candidates for the master of arts.

Students holding a bachelor of science or bachelor of arts degree, who show a high measure of ability as creative artists, may, in several departments, be admitted to candidacy for the degree of master of fine arts.

A goodly number, but not all, of the departments of the Graduate School are prepared to accept candidates for the degree of doctor of philosophy. It is not the policy of the University to grant the doctor's degree to any student whose academic training, both undergraduate and graduate, has been exclusively in this institution.

PREREQUISITES FOR MAJOR AND MINOR WORK

Upon admission to graduate standing, the student usually chooses a major subject and a minor subject. For preparation the student should have in his major subject the fair equivalent of an undergraduate major of a standard college or university, and in his minor at least a substantial year-course of upper division grade.

Where the student's credentials do not show the normal preparation for major or minor work in the chosen fields, the departments concerned are authorized to give the student an examination in specific subjects and certify as to the scope and adequacy of his preparation; also the department may require that the student take in either major or minor field or in both an amount of undergraduate work judged necessary for his adequate preparation.

The special requirements of the various departments of the Graduate School follow:

Anatomy. (Medical School). An undergraduate major in biology and comparative anatomy, or the courses in anatomy required of first year medical students, for those intending to major in anatomy.

Bacteriology and Hygiene. (Medical School). An undergraduate major in biology or chemistry including a course (not less than six hours) in general bacteriology.

Biochemistry. (Medical School). Chemistry requirement for admission, i. e., not less than twenty-three term hours, including a complete course in elementary organic chemistry (not less than eight hours). A brief course in qualitative and in quantitative analysis is strongly advised. Those entering the Medical School without a bachelor's degree are required to take the regular course in biochemistry as a prerequisite to advanced work.

Biology. In addition to the general requirements of an undergraduate major in biology, the student should have a working knowledge of chemistry, physics, and college mathematics, and a reading knowledge of French and German.

Chemistry. In addition to the direct requirement in chemistry, the student should have a working knowledge of calculus, college physics, and preferably, a year of upper division physics. A reading knowledge of French or German is almost indispensable.

Economics. Added to the regular requirements in economics, should be at least one year of work in political science, two years of work in history, and a course in principles of sociology. An elementary course in psychology and some work of university grade in mathematics is desirable.

Education. Along with the usual fundamental courses in education is required a general knowledge of psychology and sociology. Special requirements depend on the field of research selected; graduate students in educational psychology must be prepared in advanced psychology including laboratory; students in educational history must have a suitable foundation in history, etc.

English. For a major in English, the student should have the equivalent of an undergraduate major in English, including a broad general knowledge of English literature. The specific requirements will vary according to the special line of interest the student wishes to follow.

Geology. For a major in geology, foundational work in geology is, of course, presupposed, with advanced work in the special line of work proposed, i. e., paleontology, economic geology, geography, etc.

German. The student selecting a graduate major in German should have taken work of an advanced character in German, and have an adequate familiarity with one other foreign language.

Greek. The equivalent of an undergraduate major in Greek is presupposed for a graduate major. A considerable knowledge of Latin is highly desirable.

History. Those who desire to major in history for the master's degree should have the equivalent of an undergraduate major in history with specific requirements according to the field selected.

Latin. In addition to the general requirement of the equivalent of an undergraduate major in Latin, the student should have an adequate familiarity with some other foreign language.

Mathematics. The graduate student who expects to major in mathematics should have the equivalent of an undergraduate major in mathematics, including a thorough knowledge of differential and integral calculus.

Mechanics and Astronomy. For majors, calculus, the elements of differential equations, and the elements of the theory of functions of a complex variable, together with the basic course in physics and chemistry. For minors, calculus is essential along with any special prerequisite carried by the courses.

Pathology. (Medical School). The courses required for admission to the school of medicine and the first five terms of the medical course.

Pharmacology. (Medical School). The courses required for admission to the school of medicine and the first four terms of the medical course.

Philosophy. An adequate acquaintance with the history of philosophy, and a knowledge of the fundamentals of logic, ethics and general philosophic theory.

Physical Education. A graduate student in physical education should have the equivalent of the undergraduate curriculum in the school of physical education including the biological and scientific fundamental courses.

Physics. In addition to the basic knowledge of physics generally acquired by an undergraduate major in the science, the graduate major should have a knowledge of general chemistry and the calculus, and the ability to read either French or German. The upper division courses in physics which are presented should be of a type requiring calculus as prerequisite.

Physiology. (Medical School). An undergraduate major in biology or physiology or equivalent, together with the required medical courses in physiology.

Political Science. For a major in political science, the student should have the equivalent to an undergraduate major in that subject.

Psychology. A graduate major in psychology should have a thorough training in the fundamental facts of adult psychology, with considerable experience in laboratory procedure and practice. The advanced work presented will vary with the type of special-

ization anticipated. Students who expect to specialize in mental measurements should have a foundation in biology and mathematics; those choosing the social aspects of psychology should have history of philosophy and courses from economics and sociology.

Romance Languages. Knowledge of Latin is essential. For minor work, adequate training in one Romance language is sufficient; for major work, two are required.

Sociology. The graduate major in sociology should have the equivalent of an undergraduate major in sociology, and in addition a knowledge of the principles of economics, and at least one college course in history.

REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS AND OF SCIENCE

Residence requirements. The standard residence requirement is one academic year. This does not mean that the work prescribed for each individual student can always be completed in the period of one academic year, since inadequate preparation or outside activities frequently make a longer period necessary. (Heads of the major or minor department may, at their discretion, require more than the minimum residence period).

The work for the master's degree must be completed within five years from the first graduate course taken towards a degree.

In lieu of the standard residence requirement of one year, residence may be accomplished in three full summer quarters, provided the student has completed a sufficient amount of acceptable work either at this or some other standard institution; but the transfer of acceptable graduate credits from other graduate schools may under no circumstances be in excess of one-third of the total Oregon requirement hours for the master's degree and shall not reduce the residence requirement below one year save that in exceptional cases students may be allowed residence rating for work done elsewhere when the courses are taken on the specific recommendation of the student's major professor in the University of Oregon.

In very exceptional cases research work may be done in absentia provided that this work is necessary for the student's research and done under the active direction of a member of the student's committee and has the approval of the Dean of the Graduate School. Such work shall apply toward the residence requirement.

Work done in the Portland extension center of the University is counted as residence work, fifteen hours of graduate credit earned there being counted as the equivalent of a term of residence on the campus.

Credit and Scholarship requirements. The minimum credit requirement is 45 term-hours earned in courses approved by the graduate council for graduate credit. These may be divided, approximately 30 to 15, between a major and a minor subject, or, upon the advice of the major professor, "service course" work may be taken, up to not more than one-third of the minimum number of hours required in the total. These service courses must be acceptable for graduate credit, and the work may be divided among two or more departments or taken in the same department as the major work where that seems wise. A mere chance accumulation of courses will in no case be approved, however, as the programs of work must indicate a coherent plan. In the 30 hours of the major shall be reckoned the nine hours devoted to the thesis, and the major program must include at least one full year course of "seminar" or "research," i. e., strictly graduate character, this course being normally of not less than three hours a term.

No credits are acceptable for an advanced degree which are reported with a grade lower than III, and at least one-third must be of the grades I or II (see general catalog for grading system).

Freer methods of work for certain graduate students. In cases where this seems desirable, a department may register a graduate student in strictly graduate courses for more than the ordinary number of credits given for the course, provided that the work for the additional credits be clearly and definitely outlined. The written outline for this work shall be filed with the head of the department and with the Graduate Council at the outset of the term or year. No such course may carry more than five hours of credit a term.

Amount of work. Graduate students are not permitted to register for more than 16 hours of work during the regular sessions of the academic year. Graduate students remaining only for the earlier (six weeks) portion of the summer session are not permitted to carry more than three courses, or to earn more than 9 term hours; if the student remains on through the whole ten-weeks period, he may earn a supplementary amount of credit not to exceed 6 hours, making a maximum for the ten summer weeks of 15 term-hours.

Preliminary examination. Before a student is admitted to candidacy for a degree, he must pass a preliminary examination arranged by the head of the major department. If judged advisable, the minor department may also be represented in this examination. This examination normally takes place after the student has completed at least one-fourth of his work toward the degree and before he has completed one-half of it.

Thesis. A thesis is always part of the requirement in the major subject. Nine of the hours required for the major work should be assigned to it. Not less than three weeks before the time set for the oral examination, the candidate must place on file in the graduate school office three copies of the thesis, these copies to become the property of the University, one for the major department and two for the library. Before the conferring of the degree or the delivery of the diploma, each candidate shall deliver to the Secretary of the Graduate School an abstract of or excerpts from his thesis, in suitable form for publication, bearing the written approval of his major professor. These

abstracts will not ordinarily be more than 500 words in length. It is intended that the University shall publish these abstracts in an annual volume which shall be a complete record of the theses accepted for advanced degrees. But publication of the theses either in full or in abridged form, either in standard learned journals or as books, is to be permitted, or even encouraged.

Final Examination. A special committee, consisting of never less than three, and normally of five members, shall include, in addition to the head of the major department, persons of the faculty from outside the department staff with which the candidate has done his major work. If the student has pursued a major-minor program, these other members are normally the head, and at least one other staff member, of the department in which the minor work has been done. In case the student has taken service courses in addition to his major study, the additional members of the examining board may of course be selected from among those members of the faculty with whom the service courses have been taken. This committee is appointed by the head of the major department with the approval of the dean of the Graduate School, who is himself an ex-officio member of the examining committees, and may appoint supplementary members to any committees.

The candidate shall be held for a general mastery of the field of his major subject, and shall indicate a specific portion of that field in which he shall be subject to a more detailed and searching examination. This special field is indicated in the notification of the examination.

REQUIREMENTS FOR THE DEGREE OF MASTER OF FINE ARTS

The degree of master of fine arts is open to students who hold a bachelor of arts or bachelor of science degree, and who show a high measure of ability as creative artists. It ranks on a level with the degrees of master of arts and master of science, and the same requirements of residence, credit and scholarship, amount of work, and preliminary and final examinations, must be met by students working toward the master of fine arts degree.

To meet the special and peculiar conditions of the work of the master of fine arts degree, the student's program may normally be distributed as follows, and thereby be considered to have met the requirements of major, minor, thesis, seminar, and the term-hours of credit:

- (a) Thesis (i. e., piece of creative work). Five hours of credit each term, throughout the year.
- (b) Special study and research with the more immediate theoretical and technical backgrounds of the "thesis." Five hours, each term, throughout the year.
- (c) General theoretical reading in the field of art in which the "thesis" lies. Five hours, each term, throughout the year.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Prerequisites. To enter upon work for the doctorate, the prerequisites are the same as for the master's degree, namely, the general preparation indicated by a bachelor's degree from a standard college, and substantial specific preparation in the lines of the major and minor subjects, as indicated in the departmental statements.

Amount of work. The minimum amount of work for the doctorate is three years of full-time work beyond the bachelor's degree. Work done in satisfaction of the requirements for the master's degree, if of suitable character and quality, may be counted. Requirements of time, however, are wholly secondary. The degree of doctor of philosophy is based upon attainments and proven ability, and does not rest upon any computation of time or enumeration of courses, although no student may receive the degree until he has fulfilled the requirements of residence and study for the prescribed period.

Standards of scholarship. Even more than in the master's degree, work of superior quality is required, but the prime importance is attached to the student's mastery of the general field of his major subject, his initiative and independence of movement in that field, and especially his promise of intellectual productivity.

Residence. Two years of full-time resident graduate study beyond the master's degree is required, of which at least one year, usually the last, must be spent in residence at the University of Oregon.

Major and minor subjects. The student proceeding toward the doctorate registers for one major and one or two minor subjects, devoting approximately 60 per cent of his time to the major subject and 40 per cent to the minor subject. The heart of the student's work does not lie in the mere courses he is taking, though, to be sure, these should be of a genuinely advanced and appropriate nature. Likewise, these courses should not be looked upon as merely making a sufficient total amount, but should fit into a coherent program of study and spontaneous activity on the part of the student.

Preliminary examination. Not later than one academic year before final examination for the doctor's degree, and as the basis for his advancement to candidacy, the student is subjected to two preliminary examinations as follows:

(a) For his reading knowledge of French and German. This examination is based mainly upon the literature of the major subject and, as suggested, has for its aim to determine the student's ability to use the language effectively as a tool of research. This examination is, for each language, conducted by a committee (to be approved by the dean of the Graduate School) including representation of the candidate's major department, of the department of the language concerned, and some third party qualified to judge the sufficiency of the examination for the end in view. The dean of the Graduate School is an ex-officio member of this committee. At the request of the major department, another language may be substituted for one of the specified.

(b) A general preliminary examination, having for its object to determine decisively the candidate's readiness to go ahead towards a doctor's degree, and also to reveal both to himself and his departments the directions in which his work may need special and anxious attention. This examination is arranged by the major professor, should be conducted by a committee of not less than three persons, normally including a representative of the minor department, and should constitute a fairly formal as well as serious testing.

When a student has successfully passed these examinations and has satisfied the graduate council that he has the necessary scholarly foundation and the intellectual characteristics requisite for productive scholarship, he may be promoted formally to candidacy for the degree. This promotion is not made until the student has established a title to it by work in residence.

Thesis. The general field, and if possible the subject of the research for the thesis, with such preliminary investigation as justifies an expectation of its fruitfulness must be selected in advance of, and as one of the grounds for, promotion to candidacy. The thesis must embody the results of the candidate's own individual investigations.

Three weeks before the date set for the final examinations, the candidate deposits at the office of the dean of the graduate school three copies of his thesis in complete form for the use of members of the examining committee. Before the conferring of the degree or the delivery of the diploma, each candidate shall deliver to the Secretary of the Graduate School an abstract of or excerpts from his thesis, in suitable form for publication, bearing the written approval of his major professor. These abstracts will ordinarily be from 1,000 to 3,000 words in length. It is intended that the University shall publish these abstracts in an annual volume which shall be a complete record of the theses accepted for advanced degrees. But publication of the theses either in full or in abridged form, either in standard learned journals or as books, is to be permitted, or even encouraged.

Final examinations. The final examinations should be both written and oral. The written part should consist normally of two papers of three hours duration each. The oral examination which follows the written should be of three hours duration and should cover the research work of the candidate, based upon his thesis and his attainments in the fields of his major and minor subjects. This oral examination is held before a committee of not less than five, appointed by the graduate council on the nomination of the head of the major department. One member of the committee is commonly an individual from another institution, who is of high standing in the major field.

The dean of the Graduate School is an ex-officio member of all examining committees. The doctoral examination is open to interested persons.

Description of Courses

Following is the statement of courses in which graduate credit may be earned.

Lower division courses and those upper division courses habitually open to lower division students, are not listed in this bulletin, since no graduate credit may be earned through them.

Courses numbered between 400 and 499 are intended primarily for upper division students, but are often taken for graduate credit with further assignments of work in addition to that required of undergraduates. Courses numbered 500 and above are exclusively graduate work. Each program for the master's degree must contain at least one year course of this character. Regularly such a course would be of a full three term-hours rating. The student's thesis should be recorded as the equivalent of an additional 500 course and the credit allotted for it should normally total nine hours.

Not all of the courses here listed will be given in any one year, although many of the upper division and some of the graduate courses are repeated each year. The work presented will, however, be open to the student during a reasonable period of residence, and the departments are prepared to offer any of the courses whenever qualified students need them.

Courses numbered a,b,c are year-courses which should be taken in the prescribed sequence.

Detailed information concerning the courses offered any one year, and the fees in laboratory courses will be found in the registration manual published at the beginning of the fall term.

LANGUAGE AND LITERATURE AND FINE ARTS

ENGLISH

Professors BOYER, BURGESS, ERNST, HOWE, PERKINS;
Associate Professor STEPHENSON SMITH; Assistant Professors WILLIAMSON, LESCH

Candidates for the M.A. degree majoring in English will be examined orally upon the whole field of English literature from Chaucer to the present time, and will be expected in addition to show detailed knowledge of some period, type and author. For example, the candidate should, in addition to his knowledge of the chronological development of English literature, display a more minute knowledge of Shakespeare, the drama, and the nineteenth century, or of Milton, the novel, and the eighteenth century, or of Chaucer, the essay, and the Elizabethan period, and the like.

Candidates must have had at least one year of work in courses open to graduates only.

A background in such fields as philosophy, history, sociology, and economics is expected of every candidate.

A satisfactory thesis will not entitle the candidate to the degree if his examination be unsatisfactory.

FOR ADVANCED UNDERGRADUATES AND GRADUATES
LITERATURE

401-402-403. *Milton and Seventeenth Century Literature.* Lesch.
Two hours, each term.

404-405-406. *Literature of the Medieval World.* Boethius, St. Augustine, and the other Latin writers of the dark ages. Medieval epics and romances. Icelandic sagas and eddas. The troubadours and minnesingers. Abelard, Albertus Magnus, Roger Bacon and St. Thomas Aquinas; St. Francis. Fabliaux; Reynard, the Fox. The Arthurian Cycle; Dante. The medieval stage, and especially early English drama. Piers' Plowman, Layamon's Brut, and Chaucer. Smith.
Three hours, each term.

407-408-409. *Literature of the Renaissance.* Petrarch, Boccaccio, Machiavelli, Ariosto, Castiglione, Cellini, Villon, Rabelais, Montaigne, Ronsard, Cervantes. English lyric from Wyatt through Herrick. Bacon. Elizabethan and Jacobean dramas expressing the Renaissance mood. Smith.
Three hours, each term.

410a,b,c. *Anglo-Saxon.* Grammar and translation of selected passages. Beowulf. Judith. Perkins.
Three hours, each term.

412. *Chaucer.* As much of Chaucer's work is read as time permits, with careful attention to his sources, poetical forms, pronunciation, and grammar. Perkins.
Three hours, spring term.

413a,b,c. *Introduction to Linguistics.* A scientific study of language. Phonetics. Laws governing the development of language. Methods of comparative philology. (Knowledge of Latin advisable as prerequisite.) Smith.
Two hours, each term.

414-415-416. *American Novel.* A general survey of American fiction, with detailed study of important authors from Melville, Howells, James, and Twain to the present day. Burgess.
Three hours, each term.

417-418-419. *Development of the English Language.* Anglo-Saxon, Middle English and Modern English. Changes in syntax, phonetics and vocabulary. Perkins.
Three hours, each term.

420. *The Arthurian Legend in English Literature.* A study of the origin and growth of the Arthurian legend with its use as poetic material by English and American writers. Perkins.
Three hours, winter term.

427-428-429. *American Prose Writers.* Fall: Emerson, Thoreau, Melville, Lowell, Holmes, with some readings from historians. Winter: William James, Santayana, Henry Adams, and others. Spring: American literary criticism. Burgess.
Two hours, each term.

434-435-436. *English Drama.* The first two terms may be taken with-out the third. Ernst.
Three hours, each term.

437-438-439. *Elizabethan Non-dramatic Literature.* Williamson.
Two or three hours, each term.

441-442-443. *The English Novel.* From Richardson and Fielding to the present. Boyer.
Three hours, each term.

459a,b,c. *Romantic Revolt (1750-1832).* The romantic movement in England, with some reference to parallel developments in French and German literature. Ernst.
Three hours, each term.

460. *Shelley.* His most important works are read, with attention to the author's significance as thinker and as poet. Howe.
Three hours, winter term.

464a,b,c. *Elements of Style.* Moll.
Two hours, each term.

467a,b,c. *The Donne Tradition in English Poetry.* Williamson.
Two hours, each term.

470a,b,c. *History of English Literature.* Planned for honor candidates, intending teachers and graduate students. Ernst.
Three hours, each term.

492a,b,c. *Nineteenth Century Prose.* Main currents of thought as reflected in Carlyle, Mill, Newman, Ruskin, Huxley, Arnold, Pater. Boyer.
Two or three hours, each term.

PRIMARILY FOR GRADUATES

500. *Seminar in Special Authors.* *Hours to be arranged.*

502a,b,c. *Carlyle.* Carlyle's relation as source or transmitter to the various literary, social, and intellectual movements of the day. Lectures and research problems. Boyer.
Two or three hours, each term.

510a,b,c. *Philosophical Foundations of English Literature.* Bacon, Hobbes, Locke, Berkeley, Hume, the deists, the economists, the evolutionists, the utilitarians, and the pragmatists.
Three hours, each term.

515a,b,c. *Coleridge.*

518a,b,c. *Romantic Tendencies in the 18th Century.* Ernst.
Three hours, each term.

520. *Research and Seminar.* Department staff. *Hours to be arranged.*

525a,b,c. *Seminar in Shelley.* Howe.
Hours to be arranged.

529. *Graduate Thesis.*
Nine hours.

530a,b,c. *Seminar*. Elizabethan Comedy. Open to honors students of senior standing. Smith. *Two hours, each term.*

535a,b,c. *Seminar in Shakespeare*. Research problems. Open to honors students of senior standing. Williamson. *Two or three hours, each term.*

537a,b,c. *The Evolution of Tragedy*. Boyer. *Two or three hours, each term*

539a,b,c. *Seminar in American Literature*. Burgess. *One or two hours, each term.*

550a,b,c. *Social Problems in English Literature*. The period covered by this course varies from year to year. Open to a limited number of seniors as well as to graduates. Boyer. *Two or three hours, each term.*

571a,b,c. *Survey of the English Critics*. Burgess, Howe. *Three hours, each term.*

GERMANIC LANGUAGES AND LITERATURE

Professor SCHMIDT; Assistant Professors KREMER, REINHARDT

GERMAN

The work leading to the degree of M.A. and Ph.D. with a major in German covers the study of advanced courses in Germanic philology and literature, and composition. As minor subjects, the department suggests English, Latin, Greek, the Romance and Scandinavian languages, history, music, fine arts, education, journalism, psychology and philosophy.

The library of the University contains a good collection of German books including the works of the more important authors of each period of German literature; critical and scientific works (philology, phonetics, etc.); and the most important German periodicals.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

404a,b,c. *History of German Literature*. With special study of the classic periods of the twelfth and eighteenth centuries. Scherer's *Geschichte der Deutschen Literatur* and Franke's *History of German Literature*, are used as textbooks. Papers on assigned topics will be required. Schmidt. *Three hours, each term.*

405. *Physiological Phonetics*. The sounds of English, German and French. Grandgent, German and English Sounds, Boston, Ginn & Co., (1892); Ripman's adaptation of Vietor's *Kleine Phonetik* (London, J. M. Dent & Co., 1913); *Kleines Lesebuch in Lautschrift von Vietor*; Sweet, *A Primer of Phonetics* (Oxford, Clarendon Press, 1890); lectures. Schmidt. *Two hours, one term.*

406a,b,c; 416a,b,c. *Seminar in German Literature and Philology*. Aiming to impart the principles and methods of investigation. Schmidt. *Three hours, each term.*

PRIMARILY FOR GRADUATES

501a,b,c. *Middle High German*. Michels, *Mittelhochdeutsche Grammatik*, 1910; Henrici, *Proben der Dichtungen des Mittelalters*, Berlin, 1898; selections from *Nibelungenlied*; Walther von der Vogelweide, *Parzival*; Lexer, *Mittelhochdeutsches Taschen-Wörterbuch*. Schmidt. *Three hours, each term.*

502. *Old High German*. Braune's *Althochdeutsche Grammatik*, and the same author's *Althochdeutsches Lesebuch* (4th edition); Muellenhoff and Scherer's *Denkmaeler Deutscher Poesie and Prosa* (3rd edition); Behaghel's *Historical Grammar of the German Language*. Schmidt. *Hours to be arranged.*

503. *Gothic and the Elements of Comparative German Grammar*. Braune, *Gotische Grammatik*, latest edition (1920). Heyne's *Ulfilas*, 9. Auflage, von F. Wrede, Paderborn, 1896; Streitberg's *Urgermanische Grammatik*. This course is required for advanced degrees in English philology. Schmidt.

520. *Graduate Thesis*. *Six to nine hours.*

SCANDINAVIAN LANGUAGES AND LITERATURE

FOR ADVANCED UNDERGRADUATES AND GRADUATES

460-461-462. *Scandinavian Literature, Life and Culture*. Study of educational, critical, biographical and other works and treatises on the literary and cultural life of the Scandinavian countries. Graduate credit may be earned by additional work on assigned topics. Kremer. *Two hours, each term.*

PRIMARILY FOR GRADUATES

560. *Old Icelandic*. Noreen's *Altislaendische and Altnorwegische Grammatik* is used. *Hours to be arranged.*

GREEK

Dean STRAUB; Associate Professor SMERTENKO

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401a,b,c. *Plato and Aristotle*. Plato, *Republic*; Aristotle, *Ethics*. The purpose of this course is to arrive at a satisfactory philosophical interpretation of the Greek texts. *Three hours, each term.*

405, 406, 407. *Greek Literature*. Reading and study of selected authors. *Two or three hours, each term.*

450a,b,c. *Seminar in Greek Religion*. *Two hours, each term.*

PRIMARILY FOR GRADUATES

500-501-502. *Critical Reading of Greek Literature*. Graduate students will be permitted to choose what they wish to read from a list of authors which may be obtained on application to the department. The course will include textual criticism, as well as the historical context of the works read and presupposes adequate knowledge of the ancient world as a whole. *Three hours, each term.*

505a,b,c. *Plato, the Dialogues*. An extended reading of the dialogues with a study of their philosophical import. *Hours to be arranged.*

506a,b,c. *The Greek Drama*. A reading of numerous plays in the original is expected, and is incidental to a detailed study of the rise, development and genius of the Greek drama. *Hours to be arranged.*

507a,b,c. *The Greek Historians*. Students will be expected to know the original throughout of Xenophon, Thucydides and Herodotus. This is essentially a study of Greek history through the documents provided by the Greeks themselves. *Hours to be arranged.*

510. *Graduate Thesis*. *Nine hours.*

LATIN

Professor DUNN; Associate Professor SMERTENKO

Extant Latin literature is so varied and so voluminous that any college curriculum is necessarily restricted in its choice of courses offered. The personal predilections of the professional staff or the particular needs of the province served or an unbroken tradition all naturally play a considerable part in the complexion of the Latin program.

Nevertheless, the subjoined list will be found fairly representative of the principal phases involved. An attempt has been made, not merely to suggest the choicest, but to introduce also the less exploited authors, in order that the graduate student may have cognizance of extent as well as intent. Pure appreciation of the literature is coupled with the invasion of allied studies that make the pursuit of Latin so profitable—such as archaeology, mythology, history, philosophy, the fine arts.

The spirit of research and investigation and comparison is therein stimulated and made the heart of the study, whether the course implies the use of a classical text or a series of lectures. The student cannot but be impressed by the conviction that there are yet unexplored volumes in the classic library, Latin authors that are seldom if ever approached, and themes for graduate theses which have never yet been broached. The "Meta Incognita" of Martin Frobisher is still a luminous legend for the Latin scholar.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401a,b. *Latin Literature, Tragedy*. Fragments of Roman scenic literature; Seneca, selected tragedies. Dunn.

Three hours, fall and winter terms.

402a,b. *Latin Literature, Satire*. Horace, Satires and Epistles; Juvenal, selected Satires; lectures on the history of Roman satire. Dunn.

Three hours, fall and winter terms.

402c. *Tacitus, The Annals*. Selections from Books I to VI will be read, with lectures on the period. Dunn.

Three hours, spring term.

430a,b,c. *Latin Literature, The Civil War*. Caesar, *Bellum Civile*; Cicero, selected Letters. Dunn.

Two hours, each term.

441-442-443. *Less Known Latin Authors*. Reading from authors of the late imperial epoch, to be selected.

Two or three hours, each term.

451. *Topography of Rome*. Lectures and required readings on Roman archaeology. A service course open to majors and qualified non-majors. Dunn.

Three hours, fall term.

452. *Mythology*. Lectures and required readings upon our inheritance from the myths of Greece and Rome. A service course open to majors and qualified non-majors. Dunn.

Three hours, winter term.

455a,b,c. *Latin Literature, the Historians*. Livy, the Macedonian Wars; Velleius Paterculus; *Historiae Augustae*, selections. Dunn.

Three hours, each term.

491-492-493. *Undergraduate Seminar*.

Two hours, each term.

PRIMARILY FOR GRADUATES

501a,b,c. *History of Latin Literature*. Part I (Poetry).

Hours to be arranged.

502a,b,c. *History of Latin Literature*. Part II (Prose)

Hours to be arranged.

These courses, offered in alternate years, give a two years' intensive study of Latin literature, comprising extensive reading in the works of the lesser known authors as well as those familiar through the undergraduate course, together with lectures on their lives and style.

503a,b,c. *Roman Philosophy*. Lectures covering the chief systems of doctrine prevailing among the Romans will alternate with readings from Cicero's *De Officiis* and the best portions of Lucretius. Dunn.

Hours to be arranged.

504a,b,c. *The Reigns of Trajan and Constantine*. Dunn.

Hours to be arranged.

505a,b,c. *The Reigns of Tiberius and Nero*. These courses present two emperors each, to be studied from all available sources, literary and monumental.

Hours to be arranged.

551a,b,c. *Historical Latin Grammar*. A study of the development of Latin sounds, inflections and syntax.

Hours to be arranged.

510. *Thesis*

Nine hours.

515. *Seminar*.

Hours to be arranged.

ROMANCE LANGUAGES

Professors BOWEN, CLORAN; Associate Professor WRIGHT; Assistant Professor BEALL

The library facilities for graduate work in the Romance languages are adequate, and are being rapidly developed so as to afford excellent opportunity for research.

The department is now offering courses covering the whole field of French and Spanish literature and philology which can be accommodated to serious students seeking advanced degrees in Romance languages.

Majors in Romance languages may minor in Latin, German, English, history or education.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

404a,b,c. *Seventeenth Century French Literature*. Readings of representative works of Corneille, Molière, Racine, La Fontaine, Madame de Sévigné, Pascal and Descartes. Bowen.

Three hours, each term.

406a,b,c. *Old French Readings*. Cloran. *One to three hours, each term.*

412a,b,c. *Nineteenth Century Novel, Short Story, and Criticism*. Required of French major students. Bowen.

Three hours, each term.

413a,b,c. *Modern French Drama and Lyric Poetry*. Beall.

Three hours, each term.

415a,b,c. *Undergraduate Seminar and Thesis*. For those reading for honors in Romance languages.

Two or three hours, each term.

416a,b,c. *Honors Readings in Romance Languages*. Juniors.

Two or three hours, each term.

417a,b,c. *Honors Readings in Romance Languages*. Seniors.

Two or three hours, each term.

423a,b,c. *Modern Spanish Literature*. 423a,b,c, or 427a,b,c, required of Spanish majors. Wright.

Three hours, each term.

427a,b,c. *Spanish-American Literature*. 427a,b,c, or 423a,b,c, required of Spanish majors. Wright. *Three hours, each term.*

PRIMARYLY FOR GRADUATES

The graduate courses are given in rotation and according to the need of graduate students.

500a,b,c. *French Literature in the Nineteenth Century*. Bowen. *Three hours, each term.*

501a,b,c. *French Literature in the Eighteenth Century*. Beall. *Three hours, each term.*

502a,b,c. *French Literature in the Sixteenth Century*. Beall. *Three hours, each term.*

505a,b,c. *Romance Philology*. Bowen. *Two hours, each term.*

508a,b,c. *Vulgar Latin and Old Provençal*. Wright. *Two hours, each term.*

510a,b,c. *French Seminar*. Bowen. *Hours to be arranged.*

516a,b,c. *Old Spanish*. Wright. *Two hours, each term.*

518a,b,c. *Spanish Literature of the Sixteenth and Seventeenth Centuries*. Wright. *Three hours, each term.*

519a,b,c. *Spanish Seminar*. Wright. *Hours to be arranged.*

520a,b,c. *Thesis*. *Three hours, each term.*

ARCHITECTURE AND ALLIED ARTS

Dean LAWRENCE; Professors ADAMS, MUELLER, WILCOX, ZANE

Graduates of the school of architecture and allied arts or of other institutions offering equivalent work, may secure the following advanced degrees after at least one year in residence, under the direction of the graduate school and the faculty of this school.

1. Master of Science and Master of Arts (scholastic).
2. Master of Architecture (technical).
3. Master of Fine Arts (creative).

For information concerning degrees, see front part of this bulletin.

The following courses given in the school of architecture and allied arts are accepted toward master's degrees.

ARCHITECTURE

FOR ADVANCED UNDERGRADUATES AND GRADUATES

410a,b,c. *Advanced Domestic Architecture*. A continuation of the study of the principles and requirements incident to domestic architecture as applied to the execution of plans and elevations of residence buildings.

One to four hours, each term.

418, 419, 420. *Advanced City Planning*. Continuation of City Planning.

Six to twelve hours, each term.

421, 422, 423. *Architectural History V*. Continuation of Architectural History IV.

One to two hours, each term.

424, 425, 426. *Technique and Practice*. Fifth year. Business, estimating methods and ethics for interior decorators. *Five hours, each term.*

427, 428, 429. *Advanced Structural Design*.

430a,b,c. *Architectural Practice*. Fifth year. Office management, business relations, professional ethics, etc., are studied and discussed.

One hour, each term.

457, 458, 459. *Freehand Drawing V*. Continuation of drawing from casts, antique and human figure.

One hour, each term.

Upper Division Architectural Design. *Two to ten hours, each term.*

Upper Division Interior Design. *Four to ten hours, each term.*

PRIMARYLY FOR GRADUATES

500, 501, 502. *Thesis*. Advanced architectural design. *Four to twelve hours, each term.*

510, 511, 512. *Thesis*. Advanced interior design. *Six to twelve hours, each term.*

525, 526, 527. *Assigned Reading*. *Hours to be arranged.*

530, 531, 532. *Seminar*. *Hours to be arranged.*

DRAWING AND PAINTING

FOR ADVANCED UNDERGRADUATES AND GRADUATES

433, 434, 435. *Painting V*. *Three to five hours, each term.*

439, 440, 441. *Drawing V*. *Three to five hours, each term.*

448, 449, 450. *Composition V*. *Three to five hours, each term.*

PRIMARYLY FOR GRADUATES

544, 545, 546. *Thesis*. Problem in drawing and painting. *Hours to be arranged.*

550, 551, 552. *Assigned Reading*. *Hours to be arranged.*

560, 561, 562. *Seminar*. *Hours to be arranged.*

SCULPTURE

FOR ADVANCED UNDERGRADUATES AND GRADUATES

460, 461, 462. *Modeling V*. *Three to six hours, each term.*

469, 470, 471. *Sculpture Composition V*. *Three to six hours, each term.*

PRIMARYLY FOR GRADUATES

565, 566, 567. *Thesis*. Sculpture problem. *Hours to be arranged.*

571, 572, 573. *Assigned Reading*. *Hours to be arranged.*

577, 578, 579. *Seminar*. *Hours to be arranged.*

DESIGN

FOR ADVANCED UNDERGRADUATES AND GRADUATES

484, 485, 486. *Dress Design II*. Continuation of Dress Design I, with special emphasis on the technique of fashion illustration. Study of the various styles of rendering to be found in leading fashion periodicals. Page composition of two or more figures. *Two to three hours, each term.*

487, 488, 489. *Home Decoration II*. Problems of side wall elevations in neutral wash and color. Quick rendering in pencil and water color of

elevations and drapery arrangements. Furniture design, sketches and measured drawings. Painted furniture. Choosing, framing and hanging of pictures. Color and color schemes. Laboratory and museum research.

One hour, each term.

490, 491, 492. *Decorative Design IV.* Not only drawings are made, but, in some cases, the work is carried to final conclusion by actual production of a piece of stained glass, a mural decoration, a mosaic or some such piece of art work. Students execute pieces of exterior and interior decorative detail which are incorporated in the buildings and grounds of the school of architecture and allied arts. *Two to three hours, each term.*

Graduate courses in design are arranged with the dean of the school according to the needs of the students whose major work lies in design.

MUSIC

Dean LANDSBURY

FOR ADVANCED UNDERGRADUATES AND GRADUATES

400a,b,c. *Free Composition.* A study of the characteristic idioms of the free style; the variation, simple and developed song form; developed ternary form, the art song, etc. Not more than three will be permitted in the class. Hopkins. *Two hours, each term.*

GRADUATE DIVISION

501. *Seminar.* A study of present day musical conditions with particular reference to the adjustment of music to the curriculum. Each student will be given a definite research problem, and must defend his solution before the class. Landsbury. *Four to five hours.*

503. *Advanced Free Composition.* Open to students showing marked creative ability, who have had adequate preparation. Classes will be limited to three members and each member must produce specimens in both the small and large forms which will be deemed worthy of publication or public performance. Hopkins. *Two to three hours.*

504. *Practical Artistry.* To be accepted, the student must possess a technique adequate to the needs of the classical, romantic and modern schools; the required undergraduate work for a B. M. degree; must be enrolled in courses 501 and 507, and must show promise of being able to demonstrate by public performance the beauty and cultural value of the tonal masterpieces. Landsbury, Thacher, Evans, Hopkins, Underwood, Boardman. *Two to three hours.*

507. *Multiple Counterpoint, Canon and Fugue.* A course dealing with the principles of multiple counterpoint in general, and the double, triple, and quadruple counterpoints of J. S. Bach in particular; types of finite and infinite canon; simple, double and triple fugue; application of the strict style of orchestral and choral composition. Landsbury, Hopkins. *Two hours, each term.*

MEDICINE

ANATOMY

Professors ALLEN, LARSELL; Instructors STRAUMFJORD, BUEERMANN

Graduate work in the department of anatomy is given in the School of Medicine, situated at Portland. Courses numbered 100M and 200M correspond to courses numbered elsewhere in the catalog 400 and 500, respectively.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

101M. *Gross Anatomy.* Each term; lectures and quizzes, 3 hours per week; laboratory, 9 hours per week; total, 396 hours; eighteen credits. Larsell, Straumfjord and assistants.

102M. *Histology and Organology.* Fall term; lectures and quizzes, 3 hours per week; laboratory, 9 hours per week; total, 132 hours; six credits. Larsell and assistants.

103M. *Embryology.* Winter term; lectures, 2 hours per week; laboratory, 6 hours per week; total, 88 hours; four credits. Allen and assistants.

105M. *Microscopic Technique.* Fall and winter term; limited to twelve students after consultation with instructor; laboratory, 3 hours a week; total, 33 hours; one credit. Larsell and assistant.

PRIMARILY FOR GRADUATES

201M. *Neurology and Organs of Special Sense.* Fall term; prerequisite, Anatomy 101M-103M; lectures, 2 hours per week; laboratory, 6 hours per week; total, 88 hours; four credits. Allen, Preuss.

202M. *Advanced Histology.* Winter and spring terms; prerequisite, Anatomy 102M and 105M; laboratory, 6 hours a week or less; credits to be arranged. Larsell.

203M. *Topographical Anatomy.* Winter term; prerequisite, Anatomy 101M; limited to fifteen students; lectures, 1 hour a week; laboratory, 3 hours a week; total, 44 hours; two credits. Lewis.

204M. *Special Dissections.* Limited to available material; prerequisite, Anatomy 101M; hours and credits to be arranged.

205M. *Applied Anatomy.* Spring term; prerequisite, Anatomy 101M; lectures, quizzes and demonstrations; 3 hours a week; 33 hours, three credits. Bueermann, Lewis.

206M. *Applied Osteology.* Lectures and demonstrations, 1 hour a week; laboratory, 3 hours a week; total, 44 hours; two credits.

207M. *Mechanism of the Central Nervous System Studied from Lesions.* Spring term; prerequisite, Anatomy 201M; laboratory, 3 to 6 hours a week; credits to be arranged. Allen.

208M. *Seminar and Journal Club.* Each term; includes anatomical staff and advanced students; hours and credits to be arranged. Allen.

209M. *Comparative Neurology.* Lectures, conferences and laboratory. Winter and Spring terms; credits to be arranged. Larsell.

210M. *Research.* In any branch of anatomy, research is open to qualified students upon approval of any of the instructors. Hours and credits to be arranged. Allen, Larsell.

BACTERIOLOGY, HYGIENE AND PUBLIC HEALTH

Professor SEARS

Graduate work in the department of bacteriology, hygiene and public health is given in the School of Medicine, situated at Portland. Courses

numbered 100M and 200M correspond to courses numbered elsewhere in the catalog 400 and 500, respectively.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

101M. *Medical Bacteriology and Immunology*. Spring term; lectures, 4 hours a week; laboratory, 12 hours a week; total, 176 hours; eight credits. Sears, Levin.

102M. *Principles of Public Health*. 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 and vital statistics. Lectures, recitations and discussions. Three hours a week, second term; three credits. Sears.

103M. *Community Health Problems*. A course consisting chiefly in a community health survey carried out under the direction of the department staff. Summer following third year. Sixty-six hours, three credits. Stricker, Sears, Levin.

PRIMARILY FOR GRADUATES

204M. *Seminar in Bacteriology and Immunity*. 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 are assigned and individual reports read at meetings of the class. Open to a limited number of students. Meetings held once each week. Sears, Levin.

207M. *Parasitology*. A brief course in general parasitology consisting of lectures presenting the clinical and hygienic importance of human parasites, and laboratory studies of morphology and diagnostic technic. Fall term; laboratory, 6 hours a week; lecture, 1 hour; three credits. Livingston.

208M. *Immunology and Serum Technic*. Winter term. Lectures on the fundamentals of immunology and laboratory exercises in the technic of serum reactions. Laboratory, 3 hours; lectures and demonstrations, 2 hours; total, 55 hours; three credits. Sears.

210M. *Research in Bacteriology and Immunity*. Hours and credits to be arranged. Sears.

BIOCHEMISTRY

Professor HASKINS; Assistant Professor OSGOOD

The following courses given in the medical school in Portland are accepted toward the masters' degrees. Courses numbered 100M and 200M correspond to courses numbered elsewhere in the catalog 400 and 500, respectively.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

101M. *Biochemistry*. Fall terms, 3 lectures; 6 hours laboratory a week; winter term, 3 lectures, 9 hours laboratory a week; total, 231 hours; eleven credits. Haskins, Trotman, Harris.

PRIMARILY FOR GRADUATES

202M. *Advanced Biochemistry*. Winter term, lecture 1 hour, laboratory 3 hours a week; two credits. Haskins.

203M. *Laboratory Diagnosis*. (See department of medicine course 203M.) Osgood, Haskins.

210M. *Biochemistry Research*. Haskins.

PATHOLOGY

Professor MENNE; Assistant Professor HUNTER

The following courses given in the School of Medicine at Portland are accepted toward the master's degree. Courses numbered 100M and 200M correspond to courses numbered elsewhere in the catalog 400 and 500, respectively.

The pathological museum is comprehensive. Gross and microscopic tissues are received from the surgical clinics of the several Portland hospitals, and from the autopsies of the coroner's office and other autopsies.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

101M. *General Pathology*. Fall term. A course in general pathology, comprising the study of prepared slides, supplemented by experiments, fresh and museum specimens. Lectures, recitations, 3 hours, and laboratory 9 hours a week; 132 hours; six credits. Menne, Hunter.

102M. *General Pathology*. Lectures, 2 hours and laboratory 6 hours a week; 88 hours; four credits. Menne, Hunter.

103M. *Autopsy Clinic*. Spring term; studies of autopsies, including a presentation of the clinical history. Two hours a week; 22 hours; one credit. Menne, Hunter.

104M. *Attendance at Autopsies*. Each student is required to attend and describe at least ten autopsies. Time to be arranged. One credit. Pathology staff.

105M. *Gynecological Pathology*. (See Gynecology 201a.)

106M. *Systemic Pathology*. Fall term, 4 hours each week, 44 hours; two credits. Menne, Hunter.

PRIMARILY FOR GRADUATES

201M. *Attendance at Autopsies*. Opportunity is offered to students each quarter to elect autopsy attendance with instruction, and such students are required to assist and to make detailed suggestions. Hours and credits to be arranged. Hunter.

202M. *Advanced Systemic Pathology*. Study of the detached pathology of one system. Hours and credits to be arranged. Menne, Hunter.

204M. *Advanced Pathological Histology*. Systematic study of microscopic section of autopsy tissues. Open to students who have had at least one quarter's work in pathology. Hours and credits to be arranged. Menne.

205M. *Special Pathology of Heart and Circulation*. Hours and credits to be arranged. Benson.

206M. *Pathology of the Endocrine Glands*. Attendance at autopsies required. Hours and credits to be arranged. Menne.

210M-215M. *Research*. Open to specially qualified students. Hours and credits to be arranged. Menne, Hunter.

PHARMACOLOGY

Professor MYERS

The following courses given in the School of Medicine at Portland are accepted toward the master's degree. Courses numbered 100M and 200M

correspond to courses numbered elsewhere in the catalog 400 and 500 respectively.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

101M. *Systematic Pharmacology and Prescription Writing*. Winter term; lectures and quizzes, 5 hours a week; laboratory, 3 hours a week; total, 88 hours; six credits. Myers, Dickinson.

102M. *Systematic Pharmacology and Pharmacodynamics*. Spring term; lectures and quizzes, 5 hours a week; laboratory, 3 hours a week; total 88 hours; six credits. Myers, Dickinson.

103M. *Applied Pharmacology*. Given in conjunction with Medicine 206.

104M. *Toxicology*. Spring term; lectures and quizzes, 1 hour a week for 5 weeks; 5 hours; one-half credit. Myers.

PRIMARILY FOR GRADUATES

201M. *Toxicological Analysis*. (Second year.) Spring term; lectures and quizzes, 1 hour a week; laboratory, 3 hours a week; total, 44 hours; two credits. Myers.

204M. *Seminar*. Offered during fall, winter and spring terms. Open to 3rd and 4th year students; 2 hours a week; 22 hours; two credits. Myers.

210M. *Research*. Students who are properly qualified and who can devote an adequate amount of time to the work are encouraged to pursue original investigation of pharmacological problems. Hours and credits to be arranged. Myers.

PHYSIOLOGY

Professor BURGET

The following courses given in the School of Medicine at Portland are accepted toward the master's degree. Courses numbered 100M and 200M correspond to courses numbered elsewhere in the catalog 400 and 500, respectively.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

101M. *Blood, Circulation and Respiration*. Spring term; prerequisite, Biochemistry 101; lectures and recitations, 3 hours a week; laboratory, 6 hours a week; total, 99 hours; five credits. Burget, Manville, Pynn, Suckow, Thornton.

102M. *Digestion, Metabolism, Absorption, Secretion, Excretion, Muscle and Heat*. Fall term; prerequisite, Physiology 101M; lectures and recitations, 3 hours a week; laboratory, 6 hours a week; total, 99 hours; five credits. Burget, Manville, Suckow, Thornton.

103M. *The Nervous System and the Senses*. Winter term; prerequisite, Anatomy 101M; lectures and recitations, 3 hours a week; laboratory, 6 hours a week; total, 99 hours; five credits. Burget, Manville, Pynn, Suckow, Thornton.

PRIMARILY FOR GRADUATES

201M. *Lectures on the History of Physiology*. Winter term; 1 hour a week. Burget.

202M. *Physiology of the Glands of Internal Secretion*. Spring term; prerequisite, Physiology 101M-103M; lectures, 1 hour a week; laboratory, 3 hours a week; total 44 hours; two credits. Burget.

203M. *Studies in Metabolism*. Fall term; prerequisite, Physiology 101M-103M; lectures, 1 hour a week; laboratory, 3 hours a week, total, 44 hours; two credits. Pynn.

204M. *Diet and Nutrition*. (Third year). Winter term. A course in dietary requirements in health and disease with special emphasis given to the indication and contro-indications for particular food factors; the hygiene of the gastro-intestinal tract; the peculiar value of sunlight, minerals and vitamins. Prerequisite, Physiology 101M-102M-103M; lectures, 2 hours a week; total, 22 hours; two credits. Manville.

215M. *Research*. Each term; hours and credits to be arranged. Burget, Manville.

NATURAL SCIENCE

CHEMISTRY

Professors STAFFORD, SHINN, WILLIAMS; Assistant Professor FRIEDMAN; Instructor COOL

Graduate work in chemistry for the year 1930-31 will be limited as heretofore to work required for the master's degree.

NOTE—The formal credit requirement for the degree of master of arts in chemistry is the completion of 30 hours of work in chemistry (9 of which may be for the thesis) and 15 hours of work in the minor subject. This work must include at least one full-year course of graduate status (these courses are numbered 500 and above). The remainder of the work may be selected from upper division courses.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401-403-405. *Advanced Inorganic Chemistry*. The chemical elements are first discussed as regards their practical and theoretical importance. Finally, such topics as radio-activity, the periodic table, and atomic structure are taken up. A minimum of two years work in chemistry is prerequisite. Three lectures per week. Stafford. *Three hours, each term.*

402, 404, 406. *Advanced Inorganic Laboratory*. To accompany, optionally, course 401-403-405. Stafford. *One hour, each term.*

410, 411, 412. *Applied Chemistry*. Prerequisite, 30 term hours in chemistry, one year of general physics, and one year of calculus. Stafford. *Three or four hours, each term.*

420, 421, 422. *Advanced Analytical Chemistry*. Special analytical procedures adapted to those enrolling. Cool. *Hours to be arranged.*

423. *Microchemical Analysis*. Cool. *Hours to be arranged.*

430-431-432. *Optical Methods of Analysis*. Basic principles and laboratory practice in the use of optical instruments in chemical analysis and in the investigation of physico-chemical phenomena. Cool.

Three hours, each term.

434. *Toxicology*. Shinn. *Hours to be arranged.*

440a,b,c. *Organic Chemistry*. The chemistry of the compounds of carbon. Deals with compounds which are important from the theoretical, technical and biological standpoints. The first two terms are devoted to aliphatic compounds and the third term to those of the aromatic series. Prerequisite, two years of college chemistry. Three lectures and one laboratory period. Williams. *Four hours, each term.*

443-444-445. *Advanced Organic Chemistry*. The theoretical aspects of the subject are emphasized by discussion of theories of valence, chemical reactivity, free radicals, catalysis, etc., as these are related to particular groups of compounds. Williams. *Two hours, fall and winter terms.*

446, 447, 448. *Advanced Organic Laboratory*. Largely individual laboratory work, with stress on laboratory technique in the preparation of organic chemicals. Organic elementary analysis is also given after the student has had some experience in preparation work. Course may be entered any term. One to four laboratory periods. Shinn.

One to four hours, each term.

450-451-452. *Biochemistry*. A general course dealing with the chemistry of both plant and animal organisms, their tissue constituents, nutrition and metabolism. Prerequisite, Organic Chemistry. Williams.

Two hours, each term.

453-454-455. *Biochemistry Laboratory*. To accompany, optionally, course 450-451-452. Williams.

One hour, each term.

460a,b,c. *Physical Chemistry*. Three lectures and one laboratory period. Shinn.

Four hours, each term.

463-464-465. *Chemical Energetics*. Shinn.

Two hours, each term.

466-468. *Colloidal Chemistry*. Friedman

Three hours, two terms.

467-469. *Colloidal Chemistry Laboratory*. Friedman.

One hour, two terms.

473-474-475. *Electro-Chemistry*. Shinn.

Hours to be arranged.

490, 491, 492. *Seminar*. Required of all graduate students. Chemistry staff.

One hour, each term.

PRIMARILY FOR GRADUATES

560, 561, 562. *Advanced Physical Chemistry*. Shinn and Friedman.

Hours to be arranged.

590, 591, 592. *Research*. Students are assigned to suitable problems for investigation under supervision of a member of the staff.

Hours to be arranged.

596, 597, 598. *Thesis*.

Hours to be arranged.

GEOLOGY AND GEOGRAPHY

Professors SMITH, HODGE, PACKARD

The department of geology and geography offers work in three distinct fields: economic geology, historical geology and paleontology, and geography.

In the first of these the work is directly linked with that done in the field of physics and chemistry; in the second, the natural alliances are with biology; while the third makes connections with economics, history and sociology.

Owing, however, to the distinctly threefold organization of the department, it is possible for a candidate for the master's degree in geology to major in economic geology, for example, and minor in geography, though this procedure is not encouraged.

Inasmuch as the three modern languages, German, French and Spanish, are tools indispensable to the professional geologist, the student who chooses this subject as a vocation is expected to acquire a reading knowledge of two (preferably three) of these. One modern language, other than English, is required of candidates for the master's degree, while the candidate for the doctorate must have two. The department gives its own independent test of this reading ability at the time of the preliminary examination for a higher degree.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401. *Structural Geology*. Study of origin, interpretation and mapping of minor rock structures and of joints, faults, and folds. Prerequisites, general geology and stratigraphy. Two lectures and one laboratory or field period. Smith.

Three hours, spring term.

404a,b,c. *Earth Materials*. The description, occurrence, origin, uses and distribution of minerals, igneous, sedimentary, metamorphic rocks, and metallic ores. Laboratory work with hand specimens and micro-physical and microchemical studies of fragments, slices and polished sections. Prerequisite, a knowledge of methods for determination of materials. Hodge.

Four hours, each term.

405a,b. *Non-metallic Mineral Deposits*. The geology, uses, and economics of the non-metallic minerals. Coal, oil, building stones, road material, and fertilizers are stressed. Prerequisites, general geology, mineralogy and stratigraphy. Three lectures and one laboratory.

Four hours, fall and winter terms.

410. *Seminar*. Open to advanced major students of this and related departments for the consideration of research material and a review of the current technical literature. Smith, Hodge, Packard.

One hour, each term.

411. *Advanced Geology*. Special work assigned to meet the requirements of advanced students. Smith, Hodge, Packard.

412. *Advanced Paleontology*. Special work assigned to meet the requirements of the advanced student. Packard.

Hours to be arranged.

413. *Advanced Geography*. Research in the physical and economic geography of Oregon and closely related Northwest regions. The investigations will consist largely in intensive studies of the various physiographic regions of Oregon. Prerequisites, general geology and physiography. Special work assigned to meet the needs of individual students. Smith.

Hours to be arranged.

418. *Mesozoic Faunas*. A consideration of the character, migrations, and successions of the Mesozoic West Coast faunas, including a laboratory study of typical species from the various horizons. Two lectures and two laboratory periods. Prerequisites, stratigraphy and paleontology. Packard.

Four hours, fall term.

419. *Tertiary Faunas*. A study of the faunal aspects of the principal West Coast horizons, and the determination of characteristic index fossils. Two lectures and two laboratory periods. Prerequisites, stratigraphy and paleontology. Packard.

Four hours, winter term.

420. *Geologic History of North America*. The geologic development of the North American continent. Prerequisite, stratigraphy. Packard.

Three hours, one term.

421. *Geologic History of the Pacific Coast*. The geologic history of the Pacific Coast of North America. Prerequisites, stratigraphy and paleontology. Packard.

Three hours, one term.

422. *Geologic History of Pacific Countries*. A study of the broad problems of the Pacific region as a whole and of the countries bordering thereon, with special reference to the islands and the Far East. Pre-

requisites, general geology and stratigraphy and structural geology. Smith. *Two hours, spring term.*

426. *The Geography of Europe.* Comprises both lectures and laboratory work, following syllabus prepared by the Division of Geology and Geography of the National Research Council. The physiography of Europe, with a survey of the principal natural resources of the continent. Intensive study of the map of Europe. Discussions of some of the general problems. Smith. *Four hours, fall term.*

428. *The Geography of the Pacific.* An intensive study of the Pacific region, the physical geography and natural resources, with some attention given to the outstanding social, economic and political questions as influenced by the physical background of the more important countries bordering this ocean. Smith. *Two hours, spring term.*

429. *The Geography of North America.* A course of lectures, laboratory and discussions of the physiography and resources of the continent and social reactions as influenced by these. The text used will be J. Russell Smith's "North America," accompanied by laboratory studies of Lobeck's Physiographic diagram of the United States. Smith. *Three or four hours, spring term.*

430. *Geography of South America.* A survey of the essential facts in the physical, economic and human geography of this continent. The course will also consider the outstanding economic, social and political trends in South America, as influenced by the above facts. Prerequisites, Geography 205, 206 and 207 or General Geology, 201a and 201b, and 202. Smith. *Three hours, spring term.*

PRIMARILY FOR GRADUATES

501. *Graduate Research.* *Hours to be arranged.*

502. *Graduate Thesis.* *Hours to be arranged.*

503. *Applied Geology.* Advanced study in the application of geology to engineering and economic problems. Hodge. *Hours to be arranged.*

504. *Advanced Economic Geology.* Special work assigned to meet the requirements of advanced students in metallic and non-metallic mineral deposits. Hodge, Smith. *Hours to be arranged.*

505. *Regional Geology.* Advanced studies in selected regions outside the United States. Readings and conferences. Smith.

MATHEMATICS

Professors DECOU, MILNE, McALISTER; Assistant Professor DAVIS

Some of the most suitable subjects for minors for those majoring in mathematics are: physics, mechanics, chemistry, biology, geology, psychology, education and economics.

Graduate students in mathematics will find in the University library a carefully selected collection of the best modern mathematical works in English, French, German and other foreign languages; also complete files of all the American mathematical journals, together with many of the English, French, German and Italian journals. Many books of marked historical value, published during the past three centuries, and all the standard histories are available for the use of those working in the history of mathematics.

An extended textbook library of recent books in arithmetic, algebra, geometry and trigonometry, together with many dating back to the eighteenth century, is available for the study of the pedagogy of mathematics.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401a,b. *Differential Equations.* A practical course in the solution of ordinary and partial differential equations. Prerequisite, differential and integral calculus. DeCou. *Three hours, winter and spring terms.*

402. *Higher Algebra.* A more advanced and rigorous treatment of the topics of the preceding course in algebra, together with the addition of many new topics. DeCou. *Three hours, one term.*

403. *Theory of Equations and Determinants.* An important course giving the essential principles required in various advanced studies. DeCou. *Three hours, one term.*

404. *Solid Analytical Geometry.* An advanced course dealing with surfaces of the second degree and their properties, together with some discussion of surfaces in general. DeCou. *Three hours, one term.*

405. *Analytical Trigonometry.* Prerequisite, plane trigonometry. DeCou. *Three hours, one term.*

406. *Foundations of Algebra.* A systematic study of the logical development of the number system of algebra. Prerequisite, a course in calculus. Davis. *Three hours, one term.*

407. *Projective Geometry.* Prerequisite, analytical geometry and calculus. DeCou. *Three hours, one term.*

408. *Advanced Analytical Geometry.* A more advanced treatment of the subject and intended for students of fair mathematical maturity. DeCou. *Three hours, fall term.*

409. *Advanced Calculus.* Definite integrals, improper integrals, power series. Fourier's series, elliptic functions and other special functions. Applications to physics, mechanics and astronomy receive emphasis. Prerequisite, the calculus. DeCou. *Three hours, one term.*

410. *Theory of Probability.* Course for advanced students, presupposing a knowledge of calculus. Milne. *Three hours, fall term.*

411. *Theory of Statistics.* Course for advanced students, presupposing a knowledge of calculus. Milne. *Three hours, winter term.*

413. *Introduction to Lie's Theory of Differential Equations.* A short course dealing with one parameter groups and their application to the theory of differential equations. Prerequisite, course 401a,b. Milne. *Three hours, one term.*

414. *Applied Mathematics.* Intended for students of chemistry and physics. A rapid review of differential and integral calculus, with application to problems of physics and chemistry; the development of infinite series; elements of differential equations; Fourier's theorem; theory of probability and adjustment of errors; calculus of variations. A course in calculus should precede this course. McAlister. *Three hours, one term.*

PRIMARILY FOR GRADUATES

501a,b,c. *Theory of Functions of a Complex Variable.* A course that

is fundamental for advanced study of mathematics. It deals with complex numbers, integration and differentiation of complex functions, properties of analytic functions and functions defined by differential equations. Prerequisite, differential equations. Milne.

Three hours, each term.

502. *Infinite Series*. This course deals with tests for convergence, uniform convergence, operations on infinite series, and the expansion of functions.

Three hours, one term.

503a,b,c. *Differential Equations of Mathematical Physics*. This course includes Fourier's series, Legendre's polynomials, spherical harmonics, and Bessel's functions. Methods are developed for the solution of the most important linear partial differential equations of mathematical physics, with application to elastic vibrations and the flow of heat. Milne.

Three hours, each term.

504a,b,c. *Mathematical Seminar*. Conferences and reports on assigned subjects. DeCou, Milne, Davis.

Hours to be arranged.

MECHANICS AND ASTRONOMY

Professor MCALISTER

Candidates for the master's degree who wish to take their major in this department should make a selection from: (a) the courses numbered 500 and above, listed herewith; (b) the courses in strength of materials, reinforced concrete, arches, and hydraulics, listed under the school of architecture; and (c) approved courses in mathematics and physics. For all the courses under (a), the prerequisite is the usual mathematical preparation up to and including differential equations, and analytical mechanics. Note the special preparation under course 501. For courses under (b), calculus and analytical mechanics are required.

For a minor in this department, any of the above courses are suitable, together with analytical mechanics, on approval of the major professor.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

400a,b,c. *Analytical Mechanics*. First term, statics; second term, particle dynamics; third term, dynamics of a rigid body. Calculus is a prerequisite.

Three hours, each term.

PRIMARILY FOR GRADUATES

500. *Theory of Elasticity*. The mechanics of elastic solids; applications to the strength, resistance and deformation of the ordinary materials of construction.

Four hours, fall term.

501a,b. *Hydrodynamics*. The mechanics of fluids, with special reference to liquids, but including also some applications to air and other gases. The work of the second term requires a knowledge of spherical and cylindrical harmonics.

Four hours, winter and spring terms.

505, 506, 507. *Advanced Analytical Mechanics*. Topics selected according to the needs of students, in relation to previous work and work contemplated in the future. Elective by terms.

Three hours, each term.

510. *Special Problems*. Advanced work in the application of mechanics and the problems relating thereto.

Hours to be arranged.

ASTRONOMY

PRIMARILY FOR GRADUATES

502. *Celestial Mechanics*. The fundamentals of the subject with such applications as time may permit; including some consideration of the theory of perturbed orbits.

Hours to be arranged.

PHYSICS

Professors BOYNTON, CASWELL; Assistant Professor MCALISTER

Graduate students taking physics as their major subject will ordinarily select their minor work from the departments of chemistry, mathematics, mechanics and astronomy, and candidates for the doctorate must select their minors from this list. Occasionally a course of suitable character given by one of these departments may be counted as major work in physics.

All the courses here listed as carrying graduate credit call for a full year of college physics and the calculus as prerequisites. Those numbered under 500 may be taken in partial fulfillment of the requirements for the master's degree when supplemented by sufficient additional work; the program of major work for the doctorate after the first year must be made up exclusively of courses numbered above 500.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

411-412-413. *Advanced General Physics*. Supplementing, and giving more attention to certain topics than the elementary courses, and especially to some of the more fruitful modern theories, such as the kinetic theory, the electromagnetic theory of light, the electron theory, etc. Two lectures and one laboratory period. McAlister.

Three hours, each term.

414-415-416. *Electrical Measurements*. The more important electrical quantities, with some reference to their partial applications. Direct current measurements; the magnetic properties of iron; the introduction to alternating current theory and measurements; transient electrical phenomena; elementary theory of radio. Two lectures and one laboratory period. Boynton.

Three hours, each term.

420. *Advanced Laboratory*. Including senior thesis. Department staff.

Hours to be arranged.

421-422-423. *Thermodynamics, Molecular Physics and Heat*. A study of heat and other forms of energy in connection with ideal gases, saturated vapors, dilute solutions and other ideal or actual substances, including a discussion of the kinetic theory of gases and liquids. Especially for students of physics, physical chemistry and those interested in industrial applications. Boynton.

Three hours, each term.

424-425-426. *Electron Theory*. An introductory course dealing with cathode, canal and X-rays, ionization of gases, photo-electricity, radioactivity, atomic structure, thermoelectricity, metallic conduction and the fundamental phenomena of light from the standpoint of the electron theory. Caswell.

Three hours, each term.

427. *Physical Optics*. A study of such typical phenomena as refraction, dispersion, interference, diffraction and polarization. Lectures and laboratory. McAlister.

Three hours, fall term.

430, 431, 432. *Literature of Physics*. Assigned readings and reports on current literature. Staff.

Hours to be arranged.

434-435. *Cosmic Physics*. A study of the physical characteristics and behavior of the stellar universe with special emphasis upon the problems of the earth and the solar system. Caswell.

Three hours, winter and spring terms.

PRIMARYLY FOR GRADUATES

501. *Thermodynamical Potentials*. A continuation of 421-422-423, based upon the work of Gibbs and others upon the various thermodynamic potentials and their application to problems in physics and chemistry. Boynton.

Three hours, fall term.

502. *Statistical Physics*. With especial reference to certain problems in the kinetic theory, such as the equipartition theorem, the nature of entropy, etc. Boynton.

Three hours, winter term.

503. *The Conduction of Heat*. With especial reference to the Fourier theory. Caswell.

Three hours, spring term.

504-505-506. *Modern Physical Theories*. A discussion of such topics as the electromagnetic theory of light, the electron theory, relativity and the quantum theory. Caswell.

Three hours, each term.

508-509. *Spectroscopy*. A study of the modern theory of the origin of spectra and its bearing on atomic and molecular structure. First term, line spectra. Second term, band spectra. Lectures and laboratory. Prerequisites, physical optics. McAlister.

Three hours, winter and spring terms.

511-512-513. *Advanced Electrical Theory*. With especial reference to transient phenomena, oscillations and waves, thermionic vacuum tubes, and the modern applications. Courses 414-415-416 are prerequisite. Boynton.

Three hours, each term.

514, 515, 516. *Advanced Electrical Laboratory*. Designed to accompany the preceding course, dealing with the same points. Boynton.

One to two hours, each term.

520. *Research Laboratory*. Qualified students will have all facilities of the laboratories placed at their disposal and will receive the advice and assistance of the department. Department staff.

Hours to be arranged.

521, 522, 523. *Advanced Mathematical Physics*. Lectures and assigned readings. The topics treated will be varied from year to year to suit the needs of the students. Boynton, Caswell, McAlister.

Hours to be arranged.

530. *Seminar*. Conferences and reports on assigned topics and current periodical literature. Boynton.

Hours to be arranged.

550. *Graduate Thesis*. Department staff.

Nine hours.

DIVISION OF BIOLOGY

The division of biology has been formed by an association of the two departments of plant biology and animal biology, thus providing sufficiently extensive graduate work to form a respectable basis for the doctor's degree. The form of the doctor's degree will be: general subject, biology; special subject, that in which the thesis is taken, i. e., botany, plant physiology, general physiology, vertebrate anatomy, embryology, etc.

Thirty hours of biology, at least half of which shall be obtained from

graduate courses, constitute a major in biology for the master's degree. The equivalent of an undergraduate major in biology is prerequisite.

Fifteen hours from graduate or upper division courses constitute a minor in biology for the master's degree. General chemistry is prerequisite.

That candidates for higher degrees in biology may have a broad fundamental training in science, it is strongly recommended that minors be chosen from physics, chemistry, mathematics and geology. Candidates for the doctorate who elect biology as their minor subject will ordinarily fulfill the requirements for major work for the master's degree in biology, with the exception of the prerequisite of a full undergraduate major.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401a,b,c. *General Physiology*. The principles of physiology and their application to life processes in plants and animals. Prerequisites, general chemistry and general physics. Two lectures, one hour journal club, and one three-hour laboratory period. Moore.

Four hours, each term.

412. *Biological Pedagogy*. Practical study of methods of instruction in biology. Sweetser.

Three hours, winter term.

PRIMARYLY FOR GRADUATES

501a,b,c. *Biological Seminar*. (Three year cycle.) Required of all graduate fellows and assistants. Selected topics. Moore.

One hour, each term.

ANIMAL BIOLOGY

Professors MOORE, YOCOM: Associate Professor HUESTIS; Instructor WULZEN

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401a,b,c. *General Physiology*. The principles of physiology and their application to life processes in plants and animals. Prerequisites, general chemistry and general physics. Two lectures, one hour journal club, and one three-hour laboratory period. Moore.

Four hours, each term.

402. *Mammalian Anatomy*. An intensive study of a typical mammal with special emphasis on its gross structure; and the correlation of structure with function. Nine to twelve hours of laboratory.

Three or four hours, spring term.

403a,b,c. *Invertebrate Zoology*. Advanced course in the taxonomy, structure, physiology, ecology and life histories of the invertebrates. Special attention to animals of economic importance, especially those of parasitic habits. Laboratory material from representatives of the invertebrate fauna of Oregon. Lectures, conferences, field and laboratory work. Yocom.

Four hours, each term.

404a,b. *Genetics*. Lectures or conferences upon the fundamentals of genetics, together with laboratory practice in statistical analysis and experimental breeding. Huestis.

Four hours, winter and spring terms.

408a,b,c. *Biophysics*. The consideration of certain fundamental physiological processes from a quantitative standpoint. Special emphasis is placed upon the study of muscle and nerve. Lectures and seminars. Laboratory, one period, optional. Gellhorn.

Three or four hours, each term.

409a,b,c. *Assistants' Conference*. Staff.

One hour, each term.

417. *Marine Zoology*. A study in classification and structure of the

invertebrate forms of the Pacific coast. Given as a part of the regular summer session. Yocom. *Four hours.*

420a,b,c. *Problems in Animal Biology.* To be undertaken under the direction of the appropriate member of the staff. *Hours to be arranged.*

475. *Protozoology.* A course dealing with the problems of protozoa in their relation to the larger problems of biology. A study of the morphology, physiology and ecology of the free living forms is made as well as reference to the parasitic forms as the causative agents in disease. Two lectures and six laboratory hours. Yocom. *Four hours, fall term.*

476a,b,c. *Advanced Protozoology.* A course for students able to carry on semi-independent work on protozoological subjects of special interest to them. Yocom. *Two to four hours, each term.*

PRIMARYLY FOR GRADUATES

502a,b,c. *Physiology of the Central Nervous System.* Moore. *Hours to be arranged.*

504a,b,c. *Research.* May be undertaken by those properly prepared in the first year of graduate study; must be started in the second year of graduate work. Departmental staff. *Hours to be arranged.*

505a,b,c. *Seminar on Growth.* The growth of the individual, accelerators and inhibitors of growth. Wulzen. *Two hours, each term.*

506a,b,c. *Thesis.* Departmental staff. *Nine hours.*

PLANT BIOLOGY

Professor SWEETSER; Assistant Professor SANBORN

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401, 402. *Plant Histology.* A study of plant tissue. Two lectures and one three-hour laboratory. Prerequisites, 101a,b,c and 204-205, and 206 or equivalent. Sanborn. *Three hours, fall and winter terms.*

403. *Algae.* Study of the morphology of types of the four groups, with taxonomy of our local forms. Two lectures and one three-hour laboratory. Prerequisites, 101a,b,c, and 204-205 and 206 or equivalent. Sanborn. *Three hours, fall and winter terms.*

404. *Technique.* Killing, embedding, sectioning, staining and mounting of plant tissues. Lectures and laboratory. Sanborn. *Two or three hours, spring term.*

407. *Bacteriology.* Continuation of course 306. Two lectures and one three-hour laboratory period. Sweetser. *Three hours, spring term.*

417. *Paleobotany.* History of paleobotany and studies of the Oregon fossil flora. Sanborn. *Four hours, spring term.*

PRIMARYLY FOR GRADUATES

513. *Botanical Problems.* *Hours to be arranged.*

514a,b,c. *Bacteriological Problems.* *Hours to be arranged.*

515. *Graduate Seminar.* *Hours to be arranged.*

516. *Thesis.* *Nine hours.*

PHYSICAL EDUCATION

Dean BOVARD; Professors ALDEN, OSBORNE, THOMSON

Certain sufficiently advanced courses in upper division physical education, even though of fairly technical nature, may be presented as major courses by graduate students doing work toward a non-professional degree, on consultation with the instructor. A suitable minor may be chosen from the courses in education, psychology or biology.

PRIMARYLY FOR GRADUATES

501. *Physical Therapy Studies.* Lectures, assigned topics with reports and discussion. Clinic assignments comprising diagnostic studies, development and carrying out of various physical therapy treatment programs. Two lectures and three laboratory periods a week. *Three hours, each term.*

502. *Research in Corrective Gymnastics.* Specially qualified students wishing to investigate a particular problem in this field may arrange for it on consent of the instructor. *Hours to be arranged.*

503. *Physiological Problems.* Lectures and laboratory work. An advanced course in physiology covering the physiology of muscle and nerve activities with applications to exercise, industrial fatigue problems, massage and corrective gymnastics. *Three hours, one term.*

504. *Research in Physiology.* Specially qualified students may arrange to take problems concerned with muscle nerve physiology.

505. *Seminar.* Open only to qualified students on consent of dean of school. *Hours to be arranged.*

506. *Thesis.* A research problem in the field of physical education suitable as a partial fulfillment of the requirement for the master's degree. *Hours to be arranged.*

PSYCHOLOGY

Professor CONKLIN; Associate Professors CROSLAND, TAYLOR, SEASHORE

This department is equipped and authorized to offer work for the advanced degrees, master of arts, master of science and doctor of philosophy. Its library facilities and laboratory equipment and its scientific productivity meet the requirements of the University for doctoral work.

Candidates for major work in this department for the degree of doctor of philosophy must have completed the work required by this department for the degree of master of arts, or its equivalent.

Candidates for minor work in this department for the degree of doctor of philosophy must have fulfilled the same requirements made of candidates for major work for the master's degree, or its equivalent.

Preparation deficiencies may be worked off in the undergraduate courses of the department.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

403-404-405. *Systematic Psychology.* A comparison of the viewpoints of structural, functional, behavioristic and other systems of psychology as found in the general texts of representative psychologists from the time of Wundt to the present. The development of these systems as related to their authors' training and research activities, their philosophical backgrounds, and the changes brought about by progress in related fields of science. Given in alternate years with course 441-442-443. Seashore. *Two hours, each term.*

406. *Adolescence*. An intensive study of the available data and interpretations of the adolescent period of development. This course is in large part a continuation of course 410 Genetic Psychology, which should be taken as a preparation. Conklin. *Three hours, winter term.*

410. *Genetic Psychology*. A study of the changes in the course of individual human development and of the current interpretations therefor. Conklin. *Three hours, fall term.*

413-414-415. *Special Problems in Social Psychology*. This course permits undergraduates, who are prepared to do so, to make independent investigations of social psychological materials. Taylor. *One to two hours, each term.*

417a,b,c. *Advanced Laboratory*. A thorough training in laboratory technique as used in the problems of general psychology. Seashore. *Two hours, each term.*

418. *Abnormal Psychology*. Traits and theories of hysterical phenomena, insanity and the borderland phenomena. Conklin. *Three hours, spring term.*

419. *Psychological Literature*. Open to honor students. The department staff. *Hours to be arranged.*

441-442-443. *Motor Psychology*. A study of motor skill, course of acquisition, individual differences; practical applications, relation to conditioned response and the work of Pavlov, and the technique of its investigation. Alternates with 403-404-405. Seashore. *Two hours, each term.*

451, 452, 453. *Advanced Experimental*. Designed to give advanced students a thorough knowledge of general psychology as presented in the periodical literature, especially that which has not yet been summarized in textbooks. The point of view is consistently experimental, all theoretical and systematic considerations are but incidental to the presentation of experimental data and technique. Crosland. *Three hours, each term.*

461. *Test Methods in Psychology*. Brief survey of the most important statistical resources for handling psychological problems. Measures of central tendency, variability and relationship as applied in test procedure, and other experimental work. Advice and practice in the analysis of such data as the student is interested in. Taylor. *Three hours, spring term.*

462. *The Nature of Intelligence*. Survey of the history and theory of intelligence testing. Practice with the more important types of test, and in the interpretation of group tests especially. An effort to decide what such tests measure and to evaluate the concept "intelligence." Taylor. *Three hours, fall term.*

463. *Employment Psychology*. Study of the possibilities in the differentiation of special individual potentialities. A survey of various aptitude tests and the principles underlying their construction, interpretation and practical use. Taylor. *Three hours, winter term.*

464. *Instinct and Learning*. The field of animal behavior, especially experimental studies of motivation in learning. An attempt to orient students toward the study of human learning. Not given, 1929-30. Taylor. *Two hours, fall term.*

465. *The Learning Process*. A preliminary survey of neurological and psychological explanations of learning processes, followed by analysis of

typical forms of learning and kinds of learning problems. Not given, 1929-30. Taylor. *Two hours, winter term.*

466. *Human Learning*. A critical examination of the laws of learning and the conditions which influence learning favorably or unfavorably. A consideration of the bearing of these findings on current educational theory and practice. Not given, 1929-30. Taylor. *Two hours, spring term.*
NOTE—Courses 464, 465, 466 are not offered when courses 334a,b and 336 are being given.

PRIMARILY FOR GRADUATES

501a,b. *History of Psychology*. The contributions of the classical psychologists from the early Greeks to the founders of modern psychology with consideration of developmental tendencies, schools of thought and culture influences constitute the content of the course. Most of the work is done through class discussion of the assigned readings in original texts. (Temporarily withdrawn.) Conklin. *Two hours, two terms.*

507. *Research and Thesis*. Original work for thesis purposes under the direction of the instructor in charge. Conklin, Crosland, Taylor, Seashore.

508. *Psychology of Religion*. A seminar course for the review of the literature both of phenomena and interpretation in the field. Not given, 1929-30. Conklin. *Two hours, one term.*

510. *Psychology of Attention and Perception*. A consideration of the various factors and the various aspects of attention phenomena and the phenomena of perception and apperception. Various points of view, of behaviorist, objectivist, centralist, subjectivist, idealist, realist, nativist, empiricist and gestaltist. Special attention to the modern conception of attention and perception so influential in medicine, psychiatry, ethics and education. Practical experience in research in this field if the student desires it. Crosland. *Two hours, fall term.*

511. *Psychology of Memory and the Image*. A treatment of the various phases of mental organization manifested in conscious memory phenomena and in the image of imagination. Eidetic imagery, dissociation, assimilation, organization and generalization of memory contents will be thoroughly studied and illustrated, together with many technical as well as practical applications of the facts here presented. Practice in the methodology of this field if the student desires it. Crosland. *Two hours, winter term.*

513-514-515. *Special Problems in Social Psychology*. Intensive work in individually assigned topics. Taylor. *One to three hours, each term.*

516a,b. *Seminar in Genetic Psychology*. Intensive study of selected special topics in the theory, data and methods of genetic psychology. Emphasis will be placed upon newer developments, including psychoanalysis and Gestalt. Alternate years. Conklin. *Two hours, two terms.*

517a,b. *Seminar in Abnormal Psychology*. A more intensive study of the data and theories, especially of current literature in this field. Alternate years. Conklin. *Two hours, two terms.*

518. *Association*. The doctrines of association, as related to the phenomena of habit formation, memories and imagination, imagery, attention, complexes and diagnosis of mental ailments, the diagnosis of guilty knowledge, assimilation, conception, illusions and hallucinations. The concepts

of the reflex-arc and the irreversibility of nerve-conduction. Practical experience if the student desires it. Crosland. *Two hours, spring term.*

522. *Principles of Psychoanalysis.* A seminar presentation of the essential concepts in this system of psychology. Alternate years. Conklin.

Two hours, one term.

525, 526, 527. *Seminar in Experimental Psychology.* Discussions and reports of experimental movements in contemporary psychology. Crosland.

One to three hours, each term.

SOCIAL SCIENCE

ECONOMICS

Professor GILBERT; Associate Professor MEZ; Associate Professor WOOD

Candidates for the master's degree with economics as the major subject select from the following courses, according to the special interest or purpose in pursuing graduate study. Such students will be expected to attend economics seminar, and will enroll for research work in the preparation of suitable theses.

It is recommended that the minor work of a student who chooses economics as his major subject should be done in one of the following departments: business administration, sociology, education, psychology or political science.

The student majoring elsewhere and carrying minor work in economics may choose any of the courses listed below, but should be governed by his special interest and by the question of contact with his major work.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

405. *Labor Problems.* Treats of the condition under which laborers have worked since the advent of the industrial revolution. Topics especially emphasized are: trade union policies; strikes and lockouts; trade agreements; conciliation and arbitration; immigration; unemployment; women and children in industry; prison labor; industrial education, etc. Open to students who have studied the principles of economics or the principles of sociology. Schmidt.

Four hours, fall term.

406. *Organized Labor.* Study of the history of the labor movement, the aims, methods and policies of trade unions, conservative and radical. Students are required to interpret the philosophy of unionism and evaluate the significance of the labor movement. Prerequisite, 405. Wood.

Four hours, winter term.

407. *Labor Legislation.* A detailed study of some problems facing the employee, employer and public, which call for regulation through public authority. The course considers how far such legislation is consistent with the interests of all classes concerned. Wood.

Four hours, spring term.

413. *Money, Banking and Economic Crises.* The principles of money, the laws controlling its value, methods for measuring price levels and devices for stabilizing the purchasing power. The monetary history of the United States and the present monetary system. Principles underlying sound banking and the use of credit, with the history, causes and remedies for crises and panics. Prerequisite, principles of economics. Gilbert.

Five hours, spring term.

418a,b. *Public Finance.* Aims to ascertain sound principles affecting public expenditure, the raising of revenue, budgetary legislation, financial

organization and the use of the public credit. Various forms of taxes and a constructive plan for fiscal reform. Special consideration given to Oregon problems. Prerequisite, principles of economics. No credit for one term. Gilbert.

Four hours, winter and spring terms.

435. *Railway Economics.* The study of transportation by land as a factor in modern economic life, the tendency toward combination and the problems of discriminating rates. Prerequisite, principles of economics.

Four hours, fall term.

436. *Water Transportation.* Transportation agencies by water in both the domestic and foreign trade. The evolution, services and organization of these carriers and the relationships to the railways. The problems of combination and competition, the history and effect of subsidies and forms of indirect aid by governments. Prerequisite, principles of economics.

Four hours, winter term.

437. *Control of Carriers.* The characteristics which determine whether a carrier is a common carrier or not. The problems of regulation of rates, combinations and monopolies, relations between rail and water carriers, obtaining and use made of capital, relations of carriers to labor. Special attention to the work of the Interstate Commerce Commission and United States Shipping Board, and other government boards dealing with the problems of regulations. Prerequisites, principles of economics, and 435 and 436.

Four hours, spring term.

446-447-448. *International Trade Policies of the Pacific Area.* A study of economic policies affecting trade and international cooperation between the nations bordering on the Pacific. Prerequisite, economics 203a,b,c and 340. Mez.

Three hours, each term.

450-451. *Modern Theories of Social Reform.* Lectures present various suggested theories involving more or less radical changes in the economic order and these theories are subjected to criticism. Prerequisite, economics 405 and 406 or 407. Wood.

Four hours, winter and spring terms.

452. *Economics of Public Utilities.* An analysis of the economic nature of public utilities followed by a critical study of their history, organization, financial problems and the trend toward large scale enterprise, consolidation, system building. Attention also given to the creation and development of specialized public relations organization. Prerequisites, 323, 324, 325. Schmidt.

Four hours, winter term.

453. *Railway Commissions.* This course aims to consider railway commissions, state and federal, especially with reference to organization, power and achievements. Prerequisite, course 435. *Four hours, spring term.*

454. *Labor Bureaus and Commissions.* This course includes a survey of state and federal bureaus and commissions and the machinery for investigating labor problems and enforcing labor legislation. Types of commissions will be studied and their problems analyzed. Prerequisites, courses 406, 407, 408. Wood.

Four hours, fall term.

466. *Labor and Remuneration.* A survey is made of the course of real wages in Europe and America during several centuries. Successive wage theories evolved in the modern period are examined. Present day wage statistics in the United States are analyzed and correlated; systems of wage payment described. The influence of trade unions on wages is considered. Prerequisite, economics 405. Wood. *Three hours, fall term.*

467. *Labor and Agrarian Movements.* Deals in an historical and critical way with various labor and agrarian movements in the United States and Canada. Efforts to secure closer cooperation, economic and political, between organized labor and the farming class are considered and results appraised. Prerequisite, 405. *Three hours, winter term.*

468. *History of American Fiscal Policy.* At basis this course purports to be a history of the treasury department of the United States. An examination is made of federal policy since early days on subjects of coinage and paper money, public borrowing and national debts; local and centralized banking, the tariff and other forms of taxation are considered. Prerequisite, principles of economics. *Three hours, one term.*

470. *History of Economic Thought.* The evolution of economic doctrines from the Greek and Roman period to the age of Adam Smith with special emphasis on the relation between economic thought and contemporaneous economic conditions; the connection between economic doctrine and current political and philosophical speculation. Prerequisite, principles of economics. Mez. *Four hours, fall term.*

471a,b. *Modern Economic Thought.* A critical study of the English classical school and subsequent writers. The classical doctrine as transmitted and criticized is studied in the light of recent economic theory. Mez. *Four hours, winter and spring terms.*

495-496-497. *Seminar in Social Problems.* Cooperative effort at investigation of social problems overlapping into the field of several departments such as sociology, political science, economics, journalism and the like. Open to graduate students and also to seniors with honors privileges majoring in departments whose professors elect to participate in the seminar. *Hours to be arranged.*

PRIMARYLY FOR GRADUATES

501, 502, 503. *Research in Economics.* Original work for thesis purposes. Gilbert. *Hours to be arranged.*

507, 508, 509. *Economics Seminar.* *Hours to be arranged.*

511, 512, 513. *Thesis.* *Nine hours.*

EDUCATION

Dean SHELDON; Professors DEBUSK, HUFFAKER, STETSON; Associate Professor BOSSING
FOR ADVANCED UNDERGRADUATES AND GRADUATES

450. *Education Club.* Reports of current educational meetings, book reviews, discussions of special topics investigated by members. Sheldon and staff. *Two hours, each term.*

451. *History of American Education.* Lectures, reports and discussions treating the intellectual development of America with special reference to education. Knowledge of American history a requisite. Open to seniors and graduates who have met the practice teaching requirement. Sheldon. *Four hours, spring term.*

454. *History of Education* (with special reference to modern educational ideas). Includes a study of the educational writings of Plato, Aristotle, Quintilian, Renaissance educators, Comenius, Locke, Rousseau, Pestalozzi, Froebel, Herbart, Herbert Spencer, Dewey and Madame Montessori. Sheldon. *Four hours.*

457. *Social Education.* A study of education in the light of its social aims and functions and the accepted principles of psychology; the relation of the school to other institutions; the criteria of social progress and function of education in its attainment; the significance of the school in a democracy; the cultivation of responsibility and leadership; discipline as social process; play as an educative agency. Case studies of maladjustment. Open to seniors on consent of instructor. Tuttle, Sheldon. *Four hours, fall term.*

458. *Advanced Principles of Education.* A study of the broad fundamental principles and problems of education, with some attempt at their solution. The meaning of philosophy; the philosophy of education; principal rules, formulae; the value of a correct philosophy of education for the teacher and school administrator. How it may be made to function in all phases of school work. Huffaker, Sheldon. *Four hours, winter term.*

459. *Special Pedagogy of Adolescent Groups.* This course deals with the development of special social interests among adolescents and the best methods of utilizing these in organization. It is especially designed as preparation for leaders in such organizations as the boy scouts, girl scouts, campfire girls, and the like. The course will consist of two parts. The first part, dealing with the general principles of the subject, will be given by members of the University faculty. The second part, dealing with the technique of organization, will be given for each organization by an accredited representative. Tuttle. *Hours to be arranged.*

460. *Comparative Education.* A study of the school systems of the chief countries of the modern world, particularly those of Germany, France, Great Britain and the United States in relation to certain vital problems of adjustment, economic, moral and political. Special attention will be given to developments since the World War and to significant experiments in Germany, Russia, Bohemia, Denmark, India and elsewhere. Sheldon. *Four hours, spring term.*

461. *Psychology of Childhood.* A study of the mental development of the child. Native responses; play, self assertion, instinctive social attitudes; speech, emotions; simple mental processes; complex mental processes; mental organization. Prerequisite, Education 301, 302, 303 or Psychology 202a,b,c. DeBusk. *Four hours, fall term.*

463. *The Psychology of Exceptional Children.* A study of the psychology of the types of children who do not respond successfully to the usual methods of classroom instruction. The course will also include a study of the special disabilities of those atypical children who are not mentally defective. Prerequisite, Psychology of Childhood. DeBusk. *Four hours, winter term.*

464. *Mental Tests.* The technique of giving and scoring tests, both individual and group. The underlying psychological principles; the application of mental tests to the problems of the school room. Prerequisite, Education 301, 302, 303 or Psychology 202a,b,c. DeBusk. *Four hours, spring term.*

467. *Hygiene of the Child.* A consideration of those factors which affect the adjustment of the child to the school and its work. The physical basis of education; the facts and principles of growth; growth defects and disorders, together with a brief discussion of those environ-

mental factors which affect growth. Open to qualified upper division students. DeBusk.
Four hours, winter term.

468. *Hygiene of Learning.* A study of the problems of mental economy and control. Fatigue, rest, play, organization of work, interference of association; condition of inhibition; mental attitudes. Open to qualified upper division students. DeBusk.
Four hours, spring term.

471. *State School Administration.* The financial organization for the support of public education. Principles of state and federal aid—the need for a new administrative unit. Equalization of educational opportunities; taxation for the support of public education; increasing cost of education; educational control and support. Better administration and supervision of rural education; consolidation of rural schools.
Three hours, spring term.

472. *Basic Course in School Administration-Organization.* Courses 472, 473 and 474 constitute the administrative cycle which is required of all majors in school administration and of prospective high school principals. 472 deals with the organization of both grade and high schools, with emphasis on the problems of the small school system. Illustrative topics are: curriculum, construction, the course of study, building the daily program, classification of pupils, time allotments. Huffaker, Stetson.
Four hours, fall term.

473. *Basic Course in School Administration-Administration.* This course is the second of the administrative cycle. It deals with such topics as relations of the principal to the school board, school finance, school records and accounts, school building programs, building standards, construction and financing of buildings, pupil accounting, the teaching staff. Open to qualified students who have not had Educ. 472. Huffaker, Stetson.
Four hours, winter term.

474. *Basic Course in School Administration-Supervision.* This is the third course of the administrative cycle. It deals with such topics as purpose of supervision, plans for supervision, general supervisory procedure, use of tests, diagnosis of pupil difficulty, etc., as applied to both elementary and secondary schools. Open to qualified students who have not had Educ. 472-473. Huffaker, Stetson.
Four hours, spring term.

476. *School Surveys.* The development and technique of the survey movement in education; current problems in school administration as revealed through school surveys; analysis of the methods of studying these problems, and of the current tendencies in school administration as indicated through the recommendations. An intensive study of several surveys; extensive reading in this literature is required. Huffaker.
Three hours, one term.

481. *Curriculum Making in Secondary Education.* Deals with the problems of building junior and senior high school curricula. Curriculum theories and policies since 1900; principles for selecting and organizing subject matter; courses of study in various fields; principles of curriculum organization; type programs; important studies in this field. Stetson.
Three hours, one term.

482. *Measurement in Secondary Education.* A study of the construction and desirable uses of various standard tests and scales for measuring achievements in secondary school subjects. Such elements of statistical method will be given as are necessary for intelligent use of the tests. Stetson.
Three hours, spring term.

483. *Advanced Course in High School Teaching.* Planned for students with teaching experience and for those who may later become supervisors or administrators. Deals critically with recent tendencies in technique for teaching. Classroom organization, pupil participation; teaching how to study; project teaching; standardized grading; use of community resources in instruction; the experimental attitude in teaching. Stetson.
Three hours, one term.

484. *The Junior High School.* The causes leading to the development of the junior high school; the special purposes and opportunities of this type of school; problems of organization and administration; curriculum building; provisions for individual differences; instruction; exploration and guidance; school activities. Typical junior high schools will be studied. Stetson.
Three hours, winter term.

485. *Pupil Counseling in Secondary Schools.* The nature and need of guidance for adolescents; guidance through counseling; analysis of phases of counseling; developing a general guidance program in junior and senior high school; special techniques; cumulative record systems; the training and work of the counselor. Stetson.
Three hours, one term.

490. *Moral Training.* The importance of character training in relation to other school objectives; distinction between instruction and training; social control of ethical ideals; criticism of current definitions of morality; stages in character development; the dynamic function of the feelings; methods of training attitudes and interests; the function of ideals; the value of creative imagination; the place of extra-curricular activities in character building; the problem of social readjustment; moral significance of discipline; reward and punishment; penalty and consequences. A comprehensive program of character training. Open to seniors on consent of instructor. Tuttle.
Four hours, one term.

491. *Education and Ethics.* A study of methods of character education evaluating the function of instruction; the bearing of knowledge on conduct; the use of school courses for ethical instruction; limitations of the course in citizenship; the value of codes. Ethical judgment tests. Ethics and religion. Open to seniors on consent of instructor. Tuttle.
Four hours, one term.

PRIMARILY FOR GRADUATES

505-506-507. *Statistical and Experimental Methods in Education.* Technique of quantitative and experimental methods; application of statistical methods to problems; correlation methods, regression equations, and determination of errors as employed in educational administration and research, test construction and the interpretation of test results; methods of determining relationships where data is curvilinear or categorical; partial and multiple correlation and regression equations. Calculus not required. For qualified seniors and graduate students. Admission after first term only upon permission of instructor. Huffaker.
Three hours, each term.

552-553a,b. *Problems in History of 19th Century Education and Civilization.* A special course for students in history and education. Each student will prepare paper based on source material. The library is equipped with a collection of source material covering the English, German, French and American portions of the subject. Sheldon.
Two hours, each term.

554. *Movements in the Organization of Higher Education.* Includes an introductory study of the development of higher education in Europe and America, different types of institutions, problems of finance and organization, administration of personnel work, different types of curriculum. Sheldon, (with the cooperation of different members of the administrative staff).
Two hours, fall term.

555. *College and University Teaching.* Includes a consideration of mental tests in their application to college situations, the objective examination, other movements in the field of college teaching. While the course will be organized by Mr. Sheldon as chairman of the committee on college teaching, the lectures and problems studied will be outlined by the members of the University best equipped to present them.
Two hours, winter term.

556. *College and University Teaching.* This quarter's work will consist of the consideration of the pedagogy of particular college subjects offered by members of the respective departments.
Two hours, spring term.

561-562-563. *Advanced Educational Psychology.* A discussion of the experimental material which seems most useful and relevant to educational psychology. Open to graduate students with preliminary training in education and psychology. DeBusk.
Two hours, each term.

564-565-566. *Advanced Course in Mental Tests.* The history of the test movement; principles of test making; the application of tests to school problems; the definition of intelligence; average mental age of adults; the variability of the IQ; uses of tests in diagnosis. Open to graduate students only. DeBusk.
Two hours, each term.

574. *Educational Finance.* A study of the major problems of financing public education. State systems of financing education, computing the cost of education, unit costs. The problem of school revenues, the capital cost of education. Budget making. Open only to graduate students. Huffaker.
Three hours.

580-581-582. *Secondary School Curricula.* Problems of curriculum making in the modern high school. Historical, philosophical, social, psychological and administrative factors involved. Experimental studies in this field. Stetson.
Two hours, each term.

583-584-585. *Comparative Secondary Education.* Secondary school organization and practice in representative foreign countries. Varying conceptions of aims and functions, comparative efficiency, suggestions for American education. Stetson.
Two hours, each term.

597. *Educational Research.* In addition to the regular courses listed above members of the staff stand ready to supervise research and investigation by qualified graduate students. Registration by permission of the staff member or members in whose field the investigation lies. Credits, one to three, depending upon the nature of the investigations.

Problems in the history of education. Sheldon.

Problems in school administration or elementary education. Huffaker.

Problems in secondary education. Stetson, or Bossing.

Problems in educational psychology or hygiene. DeBusk.

Problems in social or moral education. Sheldon and Tuttle.

HISTORY

Professors R. C. CLARK, DONALD BARNES, WALTER BARNES, DAN E. CLARK, SHELDON;
Assistant Professors FISH, BLUE

Candidates for a master's degree with history as a major subject must select one field from each of the three following groups for special study and examination.

Group I. 1. *Ancient History.* 2. *Medieval History.* 3. *China and Japan.*

Group II. 1. *Europe, 1500-1815.* 2. *Europe since 1815.* 3. *England.*

Group III. 1. *American History to 1829.* 2. *American History since 1829.*

A written examination, in addition to the oral, may be required if it seems desirable to the department, as a further means of determining the qualifications of the candidate.

Candidates for the degree of doctor of philosophy are required to choose five of the fields listed below and historiography in addition. A special field in which a thesis is to be written must be chosen. The remaining four courses, those selected in addition to the special field and historiography, must be distributed in such manner that not more than two may fall in any one of the several groups. Within the fields selected the candidate will be permitted to direct his study toward the social and intellectual, the constitutional and political, the diplomatic or the economic aspects as his interests may decide. Written examinations in addition to the final oral examination may be prescribed.

Group 1. 1. *Ancient History.* 2. *Medieval History.* 3. *Renaissance and Reformation.* 4. *History of England to 1660.*

Group II. 1. *France from Louis XI to the French Revolution.* 2. *Revolutionary Europe, 1789-1815.* 3. *France since 1789.* 4. *Germany since 1648.* 5. *England since 1660.*

Group III. 1. *American History to 1789.* 2. *History of the United States, 1789 to 1865.* 3. *The United States since 1865.*

Group IV. 1. *Europe since 1871.* 2. *The Pacific Countries.* 3. *Latin-American History.*

FOR ADVANCED UNDERGRADUATES AND GRADUATES

400. *Teaching of History and Social Studies.* A course designed for major students and others who are preparing to teach history and the other social studies in high school. Clark.
Two hours, fall term.

401-402-403. *Great Historians.* A study of the works of the great history writers from the Greeks to the present. Stress is laid on the 19th century. Readings in the development of the art and science of history writing, and in historical methods as now understood. Not given, 1930-31. Fish.
Two hours, each term.

404, 405, 406. *Intellectual History.* An outline study of the development of the Western European mind. The historical origins and growth of contemporary mental attitudes. The course serves also as a study of the history of the freedom of thought. Prerequisite, junior standing or instructor's permission. Fish.
Three hours, each term.

407, 408, 409. *Reading and Conference.* A course of reading mapped

out by a member of the staff with personal conferences and a term thesis. Designed especially for honor students. History staff.

Two to five hours, each term.

410. *French Historians of the 19th Century.* Designed for advanced students in history, romance languages, or English who have an adequate reading knowledge of French. A study is made of the schools and methods of historical writing in France in the nineteenth century from the lives and writings of the historians; e. g. Michelet, Thierry, Guizot, Tocqueville. Blue.

Three hours, fall term.

411, 412, 413. *Ancient History.* First term, Egypt, the Fertile Crescent, Asia Minor, and the Aegean to 478 B. C.; second term, Greece and Rome to 200 B. C.; third term, the last two centuries of the Roman Republic and the Roman Empire. Donald Barnes. *Three hours, each term.*

421-422-423. *The Middle Ages.* A study of the development of Europe and its civilization from the decline of the Roman Empire to the age of Dante. Fish.

Three hours, each term.

431, 432, 433. *The Age of Monarchy.* Fall term, the Renaissance; winter term, the Reformations; spring term, the Religious Wars and Louis XIV. This course traces the development from the medieval period of the universal church to the modern period of the independent states, and their rivalry in war, colonial expansion, commerce, culture, and religion, to the eve of the French Revolution.

Three hours, each term.

441-442-443. *The French Revolution.* An advanced study of the ten years of the French Revolution beginning with the calling of the Estates General. Prerequisite, a general course covering the French Revolution. Desirable, a reading knowledge of French. Should be entered only the first term, and if possible continued for the year.

Two or three hours, each term.

458. *Recent Russia.* A study of the tsarist regime in Russia, an account of the work of the reformers and of the successive revolutions, then a study of the bolshevik regime. Prerequisite, Russian history, or a general course covering the French Revolution or the War of 1914. Not given, 1930-31. Walter Barnes.

Three hours, spring term.

459. *Modern Empires.* A survey of the expansion of Europe since Columbus, then a study of the colonization movement of the last half century, especially of the relations between the great powers and the backward peoples. Prerequisite, some course leading into the subject. Good introductory reading, chapter on colonial policy in Fueter: World History 1815-1920.

Three hours, spring term.

465-466. *Eighteenth Century England.* Fall term, 1714-1760; winter term, 1760 to 1793. The main outlines of the political and constitutional history from 1714 to the outbreak of the war with France in 1793. Emphasis on social and economic conditions; and on the influence of overseas expansion. Donald Barnes.

Three hours, fall and winter terms.

467-468-469. *The Development of the British Empire.* First term, to 1782; second term, 1782-1874; third term, 1874 to the present. Donald Barnes.

Three hours, each term.

474-475. *American Foreign Relations.* A history of the relations of the United States with other powers and the development of American foreign policies. Clark.

Three hours, winter and spring terms.

476, 477. *History of the West.* The westward movement and its effect upon the life, ideas, problems and institutions of the American people. Open to history majors and to all who have completed a general course in American history.

Three hours, fall and winter terms.

478a,b,c. *Oregon History.* This course gives an acquaintance with the methods of historical study and research, and practice in the writing of history. Detailed study, largely from sources, of the building of civilization in the Pacific Northwest. Required course for senior majors, and for graduate students who write a thesis in the field of Oregon history. Clark.

Two or three hours, each term.

481 *South America.* The story of the conquest and organization of Spain's American empire, and of the wars of independence, followed by a study of the political and social life of the four or five most important republics. Blue.

Three hours, spring term.

482. *Mexico and the Carribean.* Blue.

Three hours, fall term.

PRIMARILY FOR GRADUATES

501, 502, 503. *History Research.* The working out of a research problem assigned and supervised by the instructor in whose field the problem is found. History staff.

Two to three hours.

504a,b,c. *Special Problems in Intellectual History.* Prerequisite, Intellectual History; or may be taken in conjunction with that course on permission of instructor. Fish.

Two or three hours, each term.

510, 511, 512. *Graduate Thesis.* History staff.

Nine hours.

541a,b. *Forerunners of the French Revolution.* A source study of the influence of the leading eighteenth century writers upon the ideas of the French revolutionists. Prerequisite, two years of French and a knowledge of modern European history. Not given, 1930-31. Walter Barnes.

Two hours, fall and winter terms.

565a,b. *Eighteenth Century England.* An intensive study by the seminar method of the short period of English history from 1739 to 1754. Not given, 1930-31. Donald Barnes.

552-553a,b. *Problems of 19th Century Education.* (See description under this number in School of Education. Credit in history will be given for this course.)

566. *Reforms in Great Britain, 1815-1850.* A seminar open only to graduate students. The work will consist of reports based on pamphlets, periodicals, Parliamentary debates, and printed letters and memoirs covering these years. Donald Barnes.

Three hours, spring term.

JOURNALISM

Dean ALLEN; Professors CASEY, TURNBULL

Certain sufficiently advanced courses in the upper division, even though of fairly technical nature, may be presented for students with a major or minor in Journalism, in addition to the courses given below, which are primarily for graduate students doing work toward an advanced degree.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

497a,b,c. *Seminar in Social Problems*. Cooperative effort to investigate social problems overlapping into the fields of several departments, such as sociology, political science, economics, journalism and the like. Open to graduate students, and also to seniors with honors privileges majoring in the departments whose professors elect to participate in the seminar. *Hours to be arranged.*

PRIMARILY FOR GRADUATES

500a,b,c. *Seminar*. A research course for students having the necessary preparation to enter a specialized field of original investigation. Allen. *Hours to be arranged.*

509a,b,c. *Thesis*.

Nine hours.

PHILOSOPHY

Dean REBEC; Professor TOWNSEND; Assistant Professor MÜLLER

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401. *British Philosophy of the 17th and 18th Centuries*. Bacon, Hobbes, Locke, Berkeley, Hume. For students who have had previous study of philosophy. Given alternate years. (Not offered in 1931-32.) Townsend. *Three or four hours, fall term.*

402. *Nineteenth Century Logical Theory*. Problems of modern logic drawn from the literature of the subject. 401 or its equivalent is prerequisite. Given alternate years. (Not offered in 1931-32.) Townsend. *Three or four hours, winter term.*

403. *Contemporary Philosophy*. Recent philosophical movements selected after consultation with the students. For those who have had one or more upper division courses in philosophy. Given alternate years. (Not offered in 1931-32.) Townsend. *Three or four hours, spring term.*

411-412-413. *Continental Philosophy from the 17th to the 19th Century*. A reading of some philosophical classics,—Descartes, Spinoza, Leibnitz, Kant, and the Post-Kantians with such emphasis as the interests of students indicate. Previous appropriate philosophy courses requisite. Given alternate years. (Not offered in 1931-32.) Müller. *Three or four hours, each term.*

421-422-423. *Greek and Mediaeval Philosophy*. A reading of the Platonic dialogues, selections from Aristotle. The sources of religious philosophy—Neo-Platonism, Augustine, the Scholastics and Mystics. Previous appropriate philosophy courses requisite. Given alternate years. (Not offered in 1930-31.) Müller. *Three or four hours, each term.*

425-426-427. *Philosophy of History*. The conflict of ideas in history. A critical attempt to envisage history as an evolution of such conflict. The study will converge upon an attempt to seize and interpret the essential movement of contemporary civilization. For advanced students after consultation with the instructor. Rebec. *Three or four hours, each term.*

428-429. *Monism Versus Pluralism*. Previous appropriate courses prerequisite. Rebec. *Two or three hours, fall and winter terms.*

430. *Determinism and Free Will*. 428-429 prerequisite. Müller.

Two or three hours, spring term.

455-456-457. *Undergraduate Seminar*. Philosophy staff.

Hours to be arranged.

PRIMARILY FOR GRADUATES

501-502-503. *Graduate Seminar*. Contemporary movements in philosophy. Townsend and staff. *Hours to be arranged.*

505-506-507. *Graduate Thesis*.

Nine hours.

POLITICAL SCIENCE

Professors BARNETT, SCHUMACHER

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401. *Constitutional Law*. A study of the federal constitution as interpreted by the courts. Chiefly a discussion of leading cases. Not given 1930-31. Barnett. *Four hours, fall term.*

402. *Law of Municipal Corporations*. The principles of the law of municipal corporations. Chiefly a discussion of leading cases. Open to students credited with at least one course in law. Barnett. *Four hours, fall term.*

403. *International Law*. The principles of international law. Barnett. *Four hours, winter term.*

404. *Political Parties and Election Problems*. The nature, organization, and operation of political parties, with special attention to conditions in the United States; election and recall of officers; proportional representation; representation of vocational interests; initiative and referendum; civil service reform. Barnett. *Four hours, fall term.*

405. *City Government*. The organization and operation of city government in France, Prussia, England and the United States, with special attention to contemporary reforms in the United States. Barnett. *Four hours, winter term.*

406. *Political Theory*. A study of the main concepts of political theory, mostly from the works of modern writers. Barnett. *Four hours, spring term.*

407-408-409. *International Organization and World Politics*. Nature and history of international institutions of government, including the Concert of Europe, the Hague System, the League of Nations and World Court, together with a study of political and economic realities affecting international relations. Mez. *Four hours, each term.*

410. *Democracy*. A study of the problems inherent in popular government with special reference to the democratic institutions in operation in the United States. Schumacher. *Four hours, fall term.*

411. *Public Opinion*. A study of the methods of formation and control of public opinion. Schumacher. *Four hours, winter term.*

412. *Political Problems*. An investigation of current governmental problems. Schumacher. *Four hours, spring term.*

PRIMARILY FOR GRADUATES

501-502-503. *Research in Political Science*. Schumacher.

Hours to be arranged.

504a,b,c. *Graduate Thesis*. Schumacher.

Nine hours.

505-506-507. *Seminar in Political Science*. Mez. *Hours to be arranged.*

SOCIOLOGY

Dean PARSONS; Professor CRESSMAN; Associate Professor MUELLER

The candidate for the Master's degree designating Sociology as his major subject must have included in his program, either as undergraduate or as graduate, courses 211, 212, 403, 451a and 453, or their equivalents.

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401. *Population and Population Theory.* Theories of population from Biblical times through the Middle Ages and the commercial and industrial era as they pertain to birth and death rates, increase and decrease of population, and the problems of quality; current programs of reform such as Neo-Malthusianism, Eugenics, and immigration policies as they affect population. (Not given 1929-30.) Mueller. *Two hours, fall term.*

402. *Contemporary Social Movements.* The analysis of movements on the part of classes and groups who challenge the existing order; and programs advanced. Such movements as the proletarian, youth, feminist and the various race movements and others will be considered in the light of nineteenth century backgrounds and the social factors and forces determining them. They will also be studied as they are reflected in law, social philosophy, literature, the drama, etc. (Not given 1929-30.) Mueller. *Two hours, winter term.*

403. *Theories of Social Progress.* The analysis of the criteria of progress; theories on the factors and determinants of progress as advanced from the earliest times to the present day; and a consideration of the more prominent schools of thought, such as: geographic determinism, economic determinism, the aesthetic school, racialists, etc., in the light of modern sociological theory. The course will include the history of the idea of progress. (Not given 1929-30.) Mueller. *Two hours, spring term.*

410. *Race Relations on the Pacific Slope.* A study of the amalgamation of the biological stock and the culture contacts of oriental and occidental races west of the Rocky Mountains; with some consideration given to the study of surviving primitive peoples. Class discussion and research. Cressman. *Two hours.*

440a,b,c. *Sociological Aspects of Religion.* A study of the origin, development, and the functions of religion; the part it has played in the development of present day culture; its status and its value as a social asset as based on the data offered in the study of the various world religions and contemporary religious movements. (Not given 1929-30.) Parsons. *Two hours, each term.*

445. *The Social Aspects of Art and Esthetics.* A study of schools of art and the social factors determining standards of beauty; the mental processes underlying its perception; and the social functions of art as conceived by esthetic and social theorists; past and contemporary. Prerequisite, orientation in at least one of the fine arts or literature; senior standing. Mueller. *Two hours.*

451a,b. *History of Social Thought.* An account of the conceptions of the nature and the functions of society from the time of the Greeks to the present and the emergence of sociological thought in the nineteenth century, e. g., Plato, Aristotle, The Church Fathers, Reformers, Contract Theorists, Condorcet, Godwin, Comte, and others. Special emphasis is laid upon the relation of social thought to contemporaneous forces, and their survivals in modern society. Mueller.

Three hours, fall and winter terms.

453. *Advanced Principles of Sociology.* A critical study of recent and current social thought since Herbert Spencer to the modern day. Mueller. *Three hours, spring term.*

481. *The Methods of Social Research.* The relative value of the various methods of research, such as statistics, case study, method of analogy as deduced from the analysis of the standard surveys and investigations. The validity, accuracy and characteristics of social science will be considered in comparison with the physical sciences. The study will include the problem of measurement and the techniques of investigation such as the interview, maps, and graphic presentation. Prerequisite, statistics. Mueller. *Three hours, fall term.*

PRIMARILY FOR GRADUATES

500. *Contemporary European Social Thought.* A study of current thought of the European social scientists. A reading knowledge of at least one foreign language prerequisite. (Not given 1929-30.) Mueller. *Three hours, spring term.*

501-502-503. *Seminar in Social Science.* A cooperative effort in the investigation of social problems overlapping into the fields of several departments such as Sociology, Political Science, Economics, History, Journalism, and Education. Open to graduate students and also to seniors with honors privileges. Parsons and staff.

Three to nine hours, any term or all terms.

510. *Research in Anthropology.* Individual problems and research in the field of physical anthropology. *Three hours, any term.*

520. *Research in Ethnology.* Individual projects in the field of primitive culture. *Three hours, any term.*

591-592-593. *Thesis.* Parsons and staff. *Three to nine hours.*

PORTLAND EXTENSION CENTER

The following courses offered in the Portland Extension Center may be taken for graduate credit toward a master's degree.

BIOLOGY

Professor MANVILLE

FOR ADVANCED UNDERGRADUATES AND GRADUATES

407. *Seminar in Nutrition.* *Two hours, each term.*

EDUCATION

Professors STETSON, TUTTLE

FOR ADVANCED UNDERGRADUATES AND GRADUATES

457p. *Social Education.* A study of education in the light of its social aims, the institutions with which it deals, and the principles of approved psychology; the significance of education in a democracy, leadership and originality, social progress, play and discipline. Students will be asked to diagnose situations arising out of inadequate group adjustments. Prerequisite, an elementary education course. Tuttle. *Two hours, each term.*

484. *Junior High School Theory and Practice.* The causes and development of the junior high school movement; aims and functions of the new school; organization and administration; exploration; guidance; socializing activities; standards. Stetson. *One hour, each term.*

PRIMARILY FOR GRADUATES

510. *Education Survey Course and Seminar*. A discussion club for all graduate students preparing for the master's degree. Stetson.

Two hours, each term.

510x. *Second Year Education Seminar*. Stetson. *Two hours, each term.*

ENGLISH

Professors PARSONS, BATES

FOR ADVANCED UNDERGRADUATES AND GRADUATES

401, 402, 403. *Seventeenth Century English Literature*. From the Jacobean period, through the Caroline and Puritan dominance, the restoration and the revolution, to and including the age of Dryden. The course will consider the influence of Ben Jonson upon his successors, the place of Francis Bacon in his times, and also Herrick, Cowley, Browne, Walton, Milton, Donne Bunyan, Butler, Pepys, Evelyn, Locke, the Comic Dramatists and Dryden. A century distinguished by its spirit of investigation and its developing criticism. Parsons. *Two hours, each term.*

461. *Eighteenth Century Literature*. A survey and study of the important writers and literature of the century: its essayists, Addison, Steele, Johnson, Burke, Godwin; its satirists: Jonathan Swift, Pope; its poets: Thomson, Collins, Gray, Macpherson, Chatterton, Young, Crabbe, Burns, Blake; its novelists: Defoe, Richardson, Fielding, Sterne, Smollett, Burney, Walpole, Radcliffe, Godwin. The course will follow the period's development in classicism, realism, satire, common-sense logic, revolutionary social theory, and romanticism. Parsons. *Two hours, each term.*

480. *Philosophical Backgrounds of English Literature*. (See also Philosophy.) Medieval Catholic Scholasticism; Elizabethan and Seventeenth Century Platonism; the empiricism of Bacon and his successors; the influence of Spinoza; Kant, Hegel, Gichti, Schelling, Schopenhauer, Nietzsche, in relation to literary criticism; the influence of Bergson and Pragmatism on contemporary writers. Bates.

Two hours, winter and spring terms.

PRIMARILY FOR GRADUATES

495. *Humanism*. (See also Philosophy.) A course in literary criticism. Classical humanism (Aristophanes, Plato, Aristotle, Horace); its medieval survival (Dante); its revival in the Renaissance (Rabelais, Erasmus, More, Sidney, and Jonson); neo-classicism (Boileau, Dryden, Johnson); humanistic elements in the romantic movement (Wordsworth, Byron, Shelley, Keats, Goethe, and Schiller); the humanism of the nineteenth century (Sainte-Beuve, Arnold, Brunetiere); contemporary new humanism (Brownell, Babbitt, More, Sherman, J. S. Eliot, Paul Valery, and Julien Benda). Bates. *Two hours, winter and spring terms.*

536. *Problems in Shakespeare*. Seminar for graduate students and for others whose preparation and special interest have equipped them for research methods in the examination of Shakespeare's poetry and plays. Students will work with special problems involving consideration of Shakespeare bibliography and source material, comparisons of the poet's work with that of his contemporaries, and consideration also of his expression and that of his associates of renaissance characteristics in materials and style. Parsons. *Two hours, each term.*

GERMAN

Professor SCHMIDT

FOR ADVANCED UNDERGRADUATES AND GRADUATES

410. *History of German Literature*. Either classical or contemporary literature. *Two hours, each term.*

420. *German Seminar (and Thesis)*. For students majoring in German, or for advanced undergraduates. Special assignments and reports. Thesis needs will be cared for in this course. *Two to three hours, each term.*

HISTORY

Professor R. C. CLARK

FOR ADVANCED UNDERGRADUATES AND GRADUATES

478, 479, 480. *Oregon History*. The history of the discovery, exploration and occupation of the Pacific Northwest by Europeans and Americans. The activities of the great fur companies, the missionaries, the settlement of the Willamette Valley and other sections of the Oregon Country will be fully recounted. *Two hours, each term.*

PRIMARILY FOR GRADUATES

500, 501, 502. *History Research*. Individual subjects of research will be assigned and problems and methods of historical inquiry studied. *Two to three hours, each term.*

510a,b,c. *Graduate Thesis*. Individual conferences at times to be arranged.

JOURNALISM

Professor CASEY

FOR ADVANCED UNDERGRADUATES AND GRADUATES

493. *Problems of the Pacific for Journalists*. A reading and discussion course open only to practising newspapermen or persons with good journalistic training or newspaper or magazine experience. A study will be made of important political, economic, and technical problems of the Pacific area (the Pacific slope, the Orient, and Australia) as they find expression and interpretation in American newspapers, particularly those of the West Coast. News gathering, editing, and editorial phases will be considered insofar as they relate to some central Pacific problem. *Two hours, fall term.*

401. *Public Opinion*.

Two hours, winter term.

PHILOSOPHY

Professor BATES

FOR ADVANCED UNDERGRADUATES AND GRADUATES

480. *Philosophical Backgrounds of English Literature*. (See also English.) Medieval Catholic Scholasticism; Elizabethan and Seventeenth Century Platonism; the empiricism of Bacon and his successors; the influence of Spinoza; Kant, Hegel, Gichti, Schelling, Schopenhauer, Nietzsche, in relation to literary criticism; the influence of Bergson and Pragmatism on contemporary writers. *Two hours, winter and spring terms.*

PRIMARILY FOR GRADUATES

495. *Humanism*. (See also English.) A course in literary criticism. Classical humanism (Aristophanes, Plato, Aristotle, Horace); its medieval survival (Dante); its revival in the Renaissance (Rabelais, Erasmus, More, Sidney, and Jonson); neo-classicism (Boileau, Dryden, Johnson);

humanistic elements in the romantic movement (Wordsworth, Byron, Shelley, Keats, Goethe, and Schiller); the humanism of the nineteenth century (Sainte-Beuve, Arnold, Brunetiere); contemporary new humanism (Brownell, Babbitt, More, Sherman, J. S. Eliot, Paul Valery, and Julien Benda).

SOCIOLOGY

Dean PARSONS

FOR ADVANCED UNDERGRADUATES AND GRADUATES

480. *A Survey of Social Service Administration.* Required of seniors or full-time students in the School of Applied Social Science and open to a selected number of graduate students. *Two hours, each term.*

PRIMARILY FOR GRADUATES

591. *Thesis in Sociology.* *Three hours, each term.*