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# The University of Oregon

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CATALOGUE 1904-05



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ANNOUNCEMENTS FOR 1905-06

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PUBLISHED BY THE UNIVERSITY  
JULY, 1905

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The University of Oregon Bulletin is published bi-monthly during the University year, and will be sent free on application. Requests for Bulletins, or for general information in regard to the University, should be addressed to

THE REGISTRAR,  
University of Oregon, Eugene, Oregon.

### CALENDAR

1905

	Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.		Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.		Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	
							1								1	2								
July	2	3	4	5	6	7	8		3	4	5	6	7	8	9									
	9	10	11	12	13	14	15	Sep.	10	11	12	13	14	15	16	Nov.								
	16	17	18	19	20	21	22		17	18	19	20	21	22	23									
	23	24	25	26	27	28	29		24	25	26	27	28	29	30									
	30	31																						
			1	2	3	4	5		1	2	3	4	5	6	7									
	6	7	8	9	10	11	12		8	9	10	11	12	13	14									
Aug.	13	14	15	16	17	18	19	Oct.	15	16	17	18	19	20	21	Dec.								
	20	21	22	23	24	25	26		22	23	24	25	26	27	28									
	27	28	29	30	31				29	30	31													
									29	30	31													

1906

		1	2	3	4	5	6			1	2	3	4	5	6									
Jan.	7	8	9	10	11	12	13		6	7	8	9	10	11	12	Sep.								
	14	15	16	17	18	19	20	May	13	14	15	16	17	18	19									
	21	22	23	24	25	26	27		20	21	22	23	24	25	26									
	28	29	30	31					27	28	29	30	31											
					1	2	3							1	2									
Feb.	4	5	6	7	8	9	10		3	4	5	6	7	8	9	Oct.								
	11	12	13	14	15	16	17	June	10	11	12	13	14	15	16									
	18	19	20	21	22	23	24		17	18	19	20	21	22	23									
	25	26	27	28					24	25	26	27	28	29	30									
					1	2	3		1	2	3	4	5	6	7									
	4	5	6	7	8	9	10		8	9	10	11	12	13	14	Nov.								
Mar.	11	12	13	14	15	16	17	July	15	16	17	18	19	20	21									
	18	19	20	21	22	23	24		22	23	24	25	26	27	28									
	25	26	27	28	29	30	31		29	30	31													
					1	2	3							1	2	3								
Apr.	8	9	10	11	12	13	14	Aug.	5	6	7	8	9	10	11	Dec.								
	15	16	17	18	19	20	21		12	13	14	15	16	17	18									
	22	23	24	25	26	27	28		19	20	21	22	23	24	25									
	29	30							26	27	28	29	30	31										

### CALENDAR

1905-1906

September 25-26—Admission examinations.  
 September 27 to February 16—First Semester.  
 February 19 to June 27—Second Semester.

#### CALENDAR IN DETAIL

1905

- September 15, Friday      Session of the School of Medicine begins in Portland.
- September 18, Monday      Session of the School of Law begins in Portland.
- September 25, Monday }      Entrance examinations at Eugene for the  
 September 26, Tuesday }      Colleges of Science and Arts, and Engineering.
- September 27, Wednesday }      First semester opens. Filing of credentials, and of application for undergraduate, graduate, and special student standing.
- September 28, Thursday }      Payment of incidental fees and registration.  
 September 29, Friday }      Committees of the Faculty and Instructors keep office hours for consultation with students.
- October 1, Monday      Enrollment in classes. Regular instruction begins.
- October 21, Saturday      Reception to new students by the Christian Associations.
- October 7, Saturday      Reception to Alumni football team.
- November 28, Tuesday      Annual Glee Club Concert.
- November 29, 12 M., to }      Thanksgiving recess.  
 December 2, Sunday }      Christmas vacation.
- December 23, Saturday, to }  
 January 7, Sunday }

1906

- February 7, Wednesday      Midyear examinations begin.
- February 16, Friday      First semester ends.
- February 19, Monday      Second semester begins.
- March 2, Friday      Alumni Medal Debate.
- March 31, Saturday      Treble Clef Concert
- April 21, Saturday }      Spring Vacation.  
 April 29, Sunday }

## UNIVERSITY OF OREGON

May 1, Tuesday	Graduating exercises of the School of Medicine.
May 7, Monday	Last date for filing applications for graduate degrees with the Registrar.
May 14, Monday	Graduate thesis to be filed with Registrar.
May 18, Friday	University Day. Junior Exhibition 8 P. M.
May 31, Thursday	Session of the School of Law ends.
May 30, Wednesday	Memorial Day: a holiday.
June 13, Wednesday	Final examinations begin.
June 24, Sunday	Baccalaureate Sermon, 11 A. M.
June 25, Monday	Field Day, 2 P. M.; Recital of School of Music, 8 P. M.
June 26, Tuesday	Alumni business meeting, 10 A. M.; President's Reception, 3 P. M.; Failing-Beekman Contest, 8 P. M.
June 27, Wednesday	Commencement Exercises, 10 A. M.; Alumni Banquet, 1 P. M.; Alumni Ball, 9 P. M.

## OFFICERS OF THE UNIVERSITY

## THE BOARD OF REGENTS

## OFFICERS

HON. ROBERT S. BEAN, President.

HON. STUART B. EAKIN, Treasurer.

HON. JOSHUA J. WALTON, Secretary.

## EXECUTIVE COMMITTEE

HON. SAMSON H. FRIENDLY, Chairman.

HON. CYRUS A. DOLPH,

HON. J. C. AINSWORTH.

## MEMBERS

NAMES AND ADDRESS.	TERM EXPIRES
HON. SAMSON H. FRIENDLY, Eugene.....	April 15, 1907
HON. NEHEMIAH L. BUTLER, Monmouth.....	April 15, 1911
HON. JAMES W. HAMILTON, Roseburg.....	April 1, 1913
HON. CYRUS A. DOLPH, Portland.....	April 15, 1915
HON. WILLIAM SMITH, Baker City.....	April 15, 1915
HON. FREDERICK V. HOLMAN, Portland.....	April 15, 1915
HON. ROBERT S. BEAN, Eugene.....	April 15, 1917
HON. J. C. AINSWORTH, Portland.....	April 15, 1917
HON. MILTON A. MILLER, Lebanon.....	April 15, 1917

## ADMINISTRATIVE OFFICERS

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### THE UNIVERSITY

P. L. CAMPBELL, A. B.,	President
J. A. GAMBER, A. B.,	Registrar
LOUIS H. JOHNSON,	Steward
CAMILLA LEACH,	Librarian

### THE COLLEGES AND SCHOOLS

FREDERICK GEORGE YOUNG, A. B.,	Dean of Graduate School
JOHN STRAUB, A. M.,	Dean of College of Literature, Science, and Arts
EDWARD HIRAM MCALISTER, A. M.,	Dean of College of Engineering
SIMEON EDWARD JOSEPHI, M. D.,	Dean of School of Medicine
C. U. GANTENBEIN, LL. B.,	Dean of School of Law
IRVING MACKAY GLEN, A. M.,	Dean of School of Music
LUELLA CLAY CARSON, A. M.,	Dean of Women

## OFFICERS OF INSTRUCTION

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### THE FACULTY\*

P. L. CAMPBELL, A. B.; Harvard University, 1886. President of the University.	EUGENE
JAMES FRANCIS BELL, M. D., L. R. C. P., (London). Professor of Materia Medica and Therapeutics.	PORTLAND
OTTO SALY BINSWANGER, Ph. D., M. D. Professor of Chemistry and Toxicology.	PORTLAND
WILLIAM PINGRY BOYNTON, Ph. D.; A. B. Dartmouth College, 1890; A. M. 1893; Ph. D. Clark University, 1897; Professor of Physics and Acting Professor of Latin, University of Southern California, 1890-93; Assistant in Physics and Graduate Scholar, Dartmouth College, 1892-94; Scholar and Fellow in Physics, Clark University, 1894-97; Instructor in Physics, University of California, 1897-1901; Professor of Science and Mathematics and Dean of the Faculty, California College, 1901-03. Assistant Professor of Physics and Mathematics.	EUGENE
LUELLA CLAY CARSON, A. M.; University of Oregon and Pacific University. Dean of Women and Professor of Rhetoric and American Literature.	EUGENE
THOMAS CONDON, Ph. D.; Pacific University. Professor of Geology.	EUGENE
RICHARD HAROLD DEARBORN, M. E.; A. B. Portland University, 1895; M. E. Cornell University, 1900. Assistant Professor of Electrical and Mechanical Engineering.	EUGENE

\* With the exception of the President, the Faculty are arranged in alphabetical order.

- EDGAR EZEKIEL DECOU, M. S.; B. S. University of Wisconsin, 1894; Principal High School, Evansville, Wisconsin, 1894-96; Graduate Student University of Chicago, 1896-97; M. S. University of Chicago, 1897; Professor of Mathematics, Bethel College, Russelville, Kentucky, 1897-99; Graduate Student University of Chicago, 1899-1900; University Scholar Yale University, 1900-01; Professor of Mathematics, Bethel College, Russelville, Kentucky, 1901-02; Acting President, Bethel College, 1902.
- Professor of Mathematics. EUGENE
- FREDERIC STANLEY DUNN, A. M.; A. B. University of Oregon, 1892; A. B. Harvard University, 1894; A. M. University of Oregon, 1899; Graduate Student Harvard University, 1902-03.
- Professor of Latin Language and Literature. EUGENE
- CHARLES FRIEDEL, Ph. D.; A. B. University of Wisconsin, 1882; Ph. D. University of Leipsic, 1895; Graduate Student at University of Leipsic, 1887-89; Johns Hopkins University, 1892-93; Leipsic, 1893-95, 1903-04.
- Professor of Physics. EUGENE
- C. U. GANTENBEIN, LL. B.
- Dean of the School of Law, and Professor of the Common Law and the Law of Contracts and Evidence. PORTLAND
- ANDREW JACKSON GIESY, M. D.
- Professor of Clinical Gynæcology. PORTLAND
- WILLIAM BALL GILBERT, United States Circuit Court of Appeals.
- Lecturer on Constitutional Law. PORTLAND
- IRVING MACKAY GLEN, A. M.; Graduate California School of Elocution and Oratory, 1889; Graduate California State Normal School, San Jose, 1890; Graduate Elwood Conservatory of Music, 1890; A. B. University of Oregon, 1894; Graduate Student at Johns Hopkins University, 1894-96; A. M. University of Oregon, 1897.
- Professor of English Language and Early English Literature.  
Dean of Department of Music. EUGENE

- BENJAMIN JAMES HAWTHORNE, A. M.; Randolph Macon College, 1891.
- Professor of Psychology. EUGENE
- HERBERT CROMBIE HOWE, A. B.; Cornell University, 1893; Graduate Scholar Cornell University, 1893-94, 1894-95.
- Professor of English Literature. EUGENE
- JAMES MACDONALD HYDE, A. B.; Stanford University, 1901; Instructor in Assaying, Stanford University, 1899-1900; Curator California Mining Bureau Museum, 1901-02; Field Assistant, California Mining Bureau, 1902.
- Assistant Professor of Economic Geology and Mining. EUGENE
- HENRY E. JONES, M. D.
- Emeritus Professor of Clinical Gynæcology. PORTLAND
- WILLIAM JONES, M. D.
- Professor of Clinical Surgery. PORTLAND
- SIMEON EDWARD JOSEPHI, M. D.
- Dean of School of Medicine and Professor of Obstetrics and Nervous Diseases. PORTLAND
- EDMUND JOHN LABBE, M. D.
- Acting Professor of General Anatomy. PORTLAND
- KENNETH ALEXANDER J. MACKENZIE, M. D., C. M., I. R. C. P. & L. R. C. S. (Edin.).
- Professor of Theory and Practice of Clinical Medicine. PORTLAND
- EDWARD HIRAM MCALISTER, A. M.; A. B. University of Oregon, 1890; A. M. University of Oregon, 1893.
- Dean of the College of Engineering, and Professor of Applied Mathematics and Civil Engineering. EUGENE
- HENRY H. NORTHUP, LL. B.; Columbia University, 1868.
- Lecturer on Pleading. PORTLAND

RICHARD NUNN, A. B., B. C. H., M. D.

Professor of Diseases of Eye, Ear, Nose and Throat.

PORTLAND

ALBERT EDWARD MACKAY, M. D.

Professor of Diseases of Genito-Urinary Organs and Clinical Surgery.

PORTLAND

ALFRED F. SEARS, Judge of the Circuit Court of Multnomah County; A. B. Dartmouth College, 1875; LL. B. Boston University, 1877.

Lecturer on Equity.

PORTLAND

JOSEPH SCHAFER, M. L.; B. L. University of Wisconsin, 1894; Instructor State Normal School, Valley City, North Dakota, 1894-98; Graduate Student Chicago University, Summer, 1895; M. L. University of Wisconsin, 1899; Fellow University of Wisconsin, 1900.

Assistant Professor of History.

EUGENE

FRIEDRICH GEORGE G. SCHMIDT, Ph. D.; Student at University of Erlangen, 1888-89; Student at Johns Hopkins University, 1893-96; University Scholar, 1894-95; Fellow, 1895-96, and Ph. D., 1896.

Professor of Modern Languages and Literatures. EUGENE

HENRY DAVIDSON SHELDON, Ph. D.; A. B. Stanford University, 1896; A. M. Stanford University, 1897; Instructor in Pedagogy, Stanford University, 1896-97; Lecturer in Education, Clark University Summer School, 1898-99; Ph. D. Clark University, 1900.

Assistant Professor of Philosophy and Education. EUGENE

ORIN FLETCHER STAFFORD, A. B; University of Kansas, 1900.

Assistant Professor of Chemistry.

EUGENE

GEORGE BURNSIDE STORY.

Professor of Physiology.

PORTLAND

JOHN STRAUB, A. M.; A. B. Mercersburg College, 1876; A. M. Mercersburg College, 1879.

Dean of the College of Literature, Science, and the Arts, and

Professor of Greek Language and Literature. EUGENE

ALBERT RADDIN SWEETSER, A. M.; A. B. Wesleyan University, 1884; A. M. Wesleyan University, 1887; Instructor in Cryptogamic Botany, Radcliffe College, 1895-97.

Professor of Biology.

EUGENE

ERNEST FANNING TUCKER, A. B., M. D.

Professor of Gynæcology.

PORTLAND

GEORGE MILTON WELLS, M. D.

Professor of Paediatrics.

PORTLAND

JOHN WILLIAM WHALLEY,

Lecturer on Pleading.

PORTLAND

HOLT COUCH WILSON, M. D.

Professor of Principles and Practice of Surgery. PORTLAND

GEORGE FLANDERS WILSON, M. D.

Professor of Military and Operative Surgery and Clinical Surgery.

PORTLAND

FREDERIC GEORGE YOUNG, A. B.; Johns Hopkins University, 1886; University Scholar, Johns Hopkins University, 1886-87.

Dean of the Graduate School and Professor of Economics and Sociology. EUGENE

### INSTRUCTORS, ASSISTANT INSTRUCTORS AND OTHER OFFICERS

PERCY PAGET ADAMS, B. S.; A. B., University of Oregon 1901; B. S. 1902.

Instructor in Civil Engineering.

EUGENE

JOHN F. BOVARD, B. S., University of California 1903.

Assistant Instructor in Biology.

EUGENE

CHARLES ARTHUR BURDEN,

Director of Physical Education.

EUGENE

WILLIAM L. BREWSTER.

Lecturer on Medical Jurisprudence.

PORTLAND

- CHARLES W. CONVERSE, M. A.; A. B., University of Oregon, 1902; M. A. 1905.  
Instructor in Mechanical Engineering. EUGENE
- FRANK D. FRAZER, A. M.; B. S. University of Washington, 1897; A. M. Princeton University, 1898; Tutor in Mathematics, University of Washington, 1899-1900; Graduate Student at Harvard University and Chicago University, 1900-02.  
Instructor in Mathematics. EUGENE
- EDWARD PAYSON GEARY, M. D.  
Lecturer on Physical Diagnosis. PORTLAND
- ANDREW W. JACKSON.  
Laboratory Assistant in Physics. EUGENE
- CAMILLA LEACH.  
Librarian and Instructor in History and Art. EUGENE
- RALPH CHARLES WATSON, M. D.  
Lecturer on Bacteriology. PORTLAND
- ALEXANDER DONALD MACKENZIE.  
Lecturer on Clinical Medicine. PORTLAND
- HERBERT G. MOULTON, B. S.; University of Oregon, 1905.  
Field Assistant in Civil Engineering. EUGENE
- ELLA E. McALISTER.  
Assistant Instructor in Music. EUGENE
- SUSIE FENNEL PIPES.  
Instructor in Music. EUGENE
- IDA BEL ROE, A. B.; University of Oregon, 1897.  
Instructor in English. EUGENE
- LOUIS ARTHUR SHANE, M. D.  
Assistant Demonstrator of Anatomy. PORTLAND
- BERTHA ELLSWORTH SLATER, A. B.; University of Oregon, 1899.  
Assistant Instructor in Rhetoric and English Literature. EUGENE

- ANDREW CHARLES SMITH, M. D.  
Lecturer on Clinical Surgery. PORTLAND
- EVA I. STINSON, B. M.  
Instructor in Music. EUGENE
- SIBYL THURSTON, A. M.; A. B. University of Oregon, 1898; A. M. 1902; Fellow in French, 1901-02; Graduate Scholar in Romanic Languages, Bryn Mawr College, 1902-03.  
Assistant Instructor in Romance Languages. EUGENE
- CORTES HOLIDAY WHEELER, M. D.  
Lecturer on Hygiene. PORTLAND
- ABBY WHITESIDE, B. M.; University of South Dakota, 1900.  
Instructor in Music. EUGENE
- WALTER LINCOLN WHITTLESEY, A. B.; University of Oregon, 1901.  
Assistant Instructor in Economics. EUGENE
- JAMES OSCAR WILEY, M. D.  
Lecturer on Osteology and Syndesmology. PORTLAND
- WILLIAM REED VEAZEY, B. A.; Westminster College.  
Assistant Instructor in Chemistry. EUGENE
- ROBERT CLARK YENNEY, M. D.  
Lecturer on Histology and Pathology. PORTLAND
- JAMES CULLEN ZAN.  
Lecturer on Dermatology. PORTLAND



**COMMITTEES OF THE FACULTY\***

**THE UNIVERSITY COUNCIL.**—Consisting of the President of the University and all the full professors and assistant professors of departments at Eugene, who together constitute the legal Faculty of the University.

**THE ACADEMIC COUNCIL.**—The Executive Committee of the University Council—the President, Professors Young, Straub, McAlister, Carson, and Stafford.

**THE GRADUATE COUNCIL.**—Professors Young, Friedel, Condon, Schmidt, Glen, and Howe.

**UNIVERSITY EXTENSION.**—Professors Sheldon, Dunn, Schmidt, Howe, and Hyde.

**ATHLETICS.**—Professors Hawthorne, Dearborn, Young, Glen, and Mr. Burden.

**CREDENTIALS.**—Professors Sheldon, Young, and Schafer.

**APPOINTMENTS.**—Professors Sheldon, Sweetser, Carson, Hawthorne, and Straub.

**EXAMINATIONS AND SENIOR CREDITS.**—Professors Hawthorne, Glen, and McAlister.

**SPECIAL STUDENT.**—Professors Carson, Young, and the President.

**LIBRARY.**—HON. R. S. Bean, President of the Board of Regents, and the Librarian.

**ADVISORY.**—The President, Professors Young, McAlister, Straub, and Schafer.

**STUDENT AFFAIRS.**—Professors Hawthorne, Glen, and Carson.

\*The President of the University is ex-officio a member of all committees.

**THE UNIVERSITY OF OREGON****INTRODUCTION****HISTORICAL SKETCH**

The University of Oregon was established by act of the state legislature October 19, 1872, and located at Eugene. Deady Hall, the first University building, was erected by the citizens of Lane County, and presented to the Board of Regents in July, 1876. In September of the same year, the University opened its doors for the reception of students. The first class was graduated in June, 1878.

The equipment of the University was at first very small, and the courses of instruction were limited practically to literary lines. The University grew rapidly, and the demand for a broader curriculum was met by the addition of engineering, scientific, and technical courses. The Law School was established in 1884, and the Medical School in 1887. With the growth and development of the state, the University has increased in numbers and financial resources. Buildings have been erected, new departments added, and a large equipment installed.

The most important single gift to the University was that of \$50,000 made by Henry Villard in 1883 for general endowment.

During the early years of the institution, the only high schools in the state were located in two or three of the larger cities, and it was necessary for the University to offer academic courses in order that students graduating from the schools in the smaller towns might continue their work by coming directly to the University. As the high school system of the state developed, it became possible to discontinue the first year of the academy course; a little later the second year was dropped; and finally in 1904 the academy was entirely abolished.

A similar growth may be seen in the evolution of the present course of study. When the University first opened its doors in 1876, the work of the different courses was practically all required. After

a few years, options were allowed in the choice of language groups, and substitutions were permitted for some of the technical requirements. Later a great number of possible combinations of required courses were offered, with a few elective hours. Then came the group system with the work of the first two years required, and the greater portion of the last two years elective, except for a major elective requirement.

Finally, during the past year, the University has adopted practically a free elective system of undergraduate study, with a major requirement not to exceed one-third of the one hundred and twenty semester hours necessary for graduation. The only specific requirements, besides the major, are four semester hours of gymnasium work, and two year-courses in some language other than English. It is expected that by means of the major requirement, the University will be able to give a wise direction to the student's chosen line of work. On the other hand, the limit placed on the amount of required work encourages the enlargement of the student's field of study, and makes possible a broad, general, culture.

### THE UNIVERSITY AND THE STATE

The aim of the University of Oregon in its relation to the educational system of the state is two-fold: First, to supplement the work of the high schools with a four years' university course. Second, to encourage graduate study. In the state's public school system, the University sustains a similar relation to the high schools that the high schools sustain to the grammar grades. As those who have passed through the grammar grades may continue their studies in the high schools, so those who have completed the full high school course may advance to the opportunities offered by the University. In a word, the University (exclusive of the Graduate School) embraces the thirteenth, fourteenth, fifteenth and sixteenth grades of the public school system. It completes the work begun in the grammar schools and continued in the high schools.

While the University furnishes instruction in the various branches requisite for a liberal education, and in the technical branches of engineering, law, medicine, and music, it also aims to encourage research work in its departments, and to offer to those who have completed college courses at the University or elsewhere an opportunity to do graduate work along general or special lines.

In addition to its work as a part of the public school system, the University attempts to aid in the state's development by gathering exact and detailed information concerning its industrial resources,

and by investigating, through its several departments, such civic and industrial problems as are of special interest to the people of the state.

### GOVERNMENT

The government of the institution rests upon the inherent obligations of students to the University and to the state. The University is maintained at the public expense for the public good. Those who participate in its benefits are expected, as a matter of honor, not only to fulfill the obligations of loyal members of the institution, of the community, and of the commonwealth, but actively to aid in promoting intellectual and moral interests. Every student owes to the public a full equivalent for its expenditure in his behalf, in the form of superior usefulness to it, both while in the institution and afterwards. Students, therefore, can not claim any exemption from the duties of good citizens and loyal members of the community and of the University; on the contrary, they are under peculiar obligations loyally to fulfill every duty. As members of the institution, they are held responsible for regular attendance and the proper performance of their duties. As members of the community, students are amenable to the law; and, if guilty of its infraction, are liable to a termination of their relations with the University. The University recognizes its civic relations and rests its administration upon civic obligations.

### BUILDINGS AND GROUNDS

The University of Oregon is located at Eugene, at the head of the Willamette Valley, 123 miles south of Portland. Eugene is the county seat of Lane county, and has a population of about six thousand. It is one of the most prosperous towns in Oregon, but above all is a city of homes, with a sincere pride in its reputation as an ideal place in which to live. The University grounds are situated about one mile south-east of the center of the city. The buildings crown a grassy slope; the Willamette River flows along the border of the campus; and the Three Sisters and the peaks of the Coast Range are in full view.

The following buildings are located on the University grounds:

*Deady Hall*, a three story building, which was presented to the state by the citizens of Lane county, was named in honor of Matthew P. Deady, the first President of the Board of Regents. It contains the Biological and Physical laboratories, and the departments of Latin, Greek, French, German, and English Literature.

*Villard Hall*, erected in 1885, was named in honor of Henry Villard, the greatest individual donor to the University's endowment. It is an imposing cemented brick building, and contains the offices of the President, the Registrar, the Steward, the Assembly Hall of the University, the very valuable geological collection, and the departments of Rhetoric and American Literature, Early English Language, Economics and Sociology, Geology, and Mathematics.

*McClure Hall* was built in 1900. It is devoted to the departments of Chemistry and Mining, and is admirably adapted to its purpose. It has three floors, with laboratory facilities for 200 students, and contains the latest appliances for research work in all lines of mining and manufacturing chemistry. It has hoods and ventilators for carrying off gases, electric motors for operating machinery, and is modern in every respect. It contains all the departments of Chemistry and Mining, and will make possible a great expansion in Mining, Metallurgy and Assaying. The upper floor for the present is used as class rooms in Philosophy and Education, History, Psychology, and also for the Psychological laboratory.

*Mechanical Hall*, erected in 1901, contains the central heating and lighting plant of the University, and the departments of Civil and Electrical Engineering. The shops are run by electricity and are well equipped with tools and machinery.

*The Timber Testing Station* established by the state legislature at its last session will be erected during the present summer, and will be in readiness for work during the year 1905-6. The Testing Laboratory will be equipped with the latest machines and appliances necessary for testing the strength of timber, stone, and metals. The official tests will be made under the supervision of an engineer from the United States Bureau of Forestry.

*The Gymnasium* is a brick building well fitted with the best apparatus for indoor athletic work. The new athletic field has a four-lap track surrounding a well constructed football field. The Alumni Association of the University has recently erected a grand stand on the athletic field at a cost of \$1050.

*The Dormitory*, erected in 1893, is a three-story brick building, equipped with electric lights, steam heat, hot and cold baths, well furnished parlors, and every convenience for the comfort of its guests.

*Collier Hall*, the President's House, is situated on the part of

the campus south of Thirteenth street, and is surrounded by grounds covering nine and one-half acres.

The University operates its own electric light, gas, and water plants.

A local station of the United States Weather Bureau is located on the campus.

### LIBRARY AND READING ROOM

The Libraries of the University contain about 16,000 volumes. The Dewey system of classification has been adopted, and a card catalogue enables students to make ready use of the books. The Library is a depository for all documents published by the Government at Washington, and receives a large number every year.

Special Department Libraries are being accumulated which are provided with reserve shelves in the General Library. Pool's Index and the annual library indexes have been provided, and there is a valuable collection of bound periodicals. The list of encyclopedias and strictly reference books numbers over 200 volumes. The Literary Societies of the University have accumulated libraries of considerable value, which are accommodated in special alcoves of the General Library. The Society Libraries number nearly 1,000 volumes.

Instructors in the University, students and resident graduates are entitled to draw books from the Library. To others it is a Reference Library only. Students may draw three volumes at a time, to be retained for three weeks, with the privilege of one renewal. The Library is open every day during term time, from 8:30 A. M. to 5 P. M., and on Saturday from 8:30 A. M. to 12:00 M.

The University Reading Room contains a large assortment of American and foreign newspapers and periodicals. They include weekly and monthly magazines and reviews on General Literature, Sociology, Political Science, History, Economics, Chemistry, Biology, Physics, Engineering, Education, Philosophy, Psychology, French, German, etc.

The reading room will be open every day in term time, from 8:30 A. M. to 5 P. M., excepting Sunday.

### MUSEUMS

Dr. Condon's Geological Collection is especially rich in fossils of Oregon, and is the largest collection of specimens of the Northwest in existence.

The Howell collection of the Flora of Oregon contains about ten thousand type specimens of the flora of the Northwest.

**PUBLICATIONS**

*The University of Oregon Bulletin* is published bi-monthly, except during the summer vacation. It furnishes information in regard to the current work of the University, and gives the results of special research undertaken by the various departments. Public School Library Lists, by Prof. Luella Clay Carson; *The Mineral Resources of Oregon*, by Prof. O. F. Stafford; *Beowulf and Cynewulf*, by Prof. I. M. Glen; *Water Power on the McKenzie River*, and *Water Power on the Santiam River*, by Prof. E. H. McAlister; *Tendencies in Recent Road Legislation*, by Prof. F. G. Young; *A General Register of the University of Oregon from 1872 to 1904*, by Mr. J. A. Gamber, are among the recent numbers of the Bulletin. The Bulletins are sent free on application to the Registrar of the University.

*The Oregon Weekly* is published each Monday during the College year by the student body of the University. The paper is devoted to general college news, and aims to keep the students, faculty and alumni posted concerning the every-day happenings at the University and neighboring institutions. The staff consists of an editor-in-chief, with two associate editors, and a managing editor, with two assistants. The various members of the staff are elected during the second semester of each year.

*The University of Oregon Monthly* is a monthly magazine published by the student body of the University. It is confined to literary articles written by students, alumni and other persons connected with the institution. The aim of the Monthly is to arouse and cultivate among the students practical literary ability, and also to serve as a medium between the University and its alumni.

**SOCIETIES****LITERARY**

*The Laurean and Eutaxian Corporation* was organized with a state charter in 1877. It was organized to further the literary interests of the societies of the University. It has a hall in which the two societies meet, and a well selected library of several hundred volumes. The corporation elects annually a corps of officers, whose duty it is to look after the interests of the library of the organization.

*The Philologian Society* was organized October 21, 1893. Its object is to discuss questions of general interest, and to secure for its members proficiency in debate and a thorough knowledge of parlia-

mentary usage. The usual exercises are a short literary program, and a debate open to all members, with leaders appointed two weeks in advance. The officers are elected for a term of ten weeks, and the meetings are held in the Physical lecture room at 7:30 on Friday evening.

**RELIGIOUS**

*The Young Men's Christian Association* has its rooms in Deady Hall. It endeavors to promote growth in grace and fellowship among its members, and stands for Christian life and work in the University. It holds regular prayer meetings on Friday evenings at 6:45 o'clock.

The Association maintains an employment bureau in connection with the Administrative Office, the services of which are free to students in all departments of the institution.

The Association has a committee to help students find comfortable rooms and boarding places. Students will be more apt to secure rooms as they desire them if they send word before coming to the University, telling the price they wish to pay.

A Student's Handbook, containing items of information especially valuable to new students, is issued at the end of the college year. A copy will be sent free to any address. Apply to the General Secretary.

Address all inquiries to the General Secretary of the Y. M. C. A., C. R. Reid, 402½ Third St., Portland, or G. H. Billings, Ashland, Oregon.

*The Young Women's Christian Association* was organized in March, 1894. Its purpose is to crystalize the Christian element in the University, and make the influence of that element felt among all the young women. Its social function is an important part of its work. New students are met as they come from the trains, and everything is done to make them welcome. Informal prayer meetings are held every Wednesday afternoon at 3:00 o'clock in the Association parlors. Officers are chosen the first week in January to serve one year. Any young woman wishing information in regard to the Association is invited to correspond with the General Secretary of the Association at Eugene.

**ATHLETIC**

*The Athletic Council* of the University of Oregon, consisting of three members of the Faculty and the President ex-officio, three members of the Alumni Association, and three members of the Student Body, exercises control over all athletic interests of the University.

Under its supervision is the football team, the track team, the baseball nine, basketball team, tennis club and indoor baseball club.

The University of Oregon has become a member of the Northwest Intercollegiate Athletic Association, representing the leading universities and colleges of Oregon, Idaho, and Washington:

#### MUSICAL

*The University of Oregon Glee Club* is a student organization, open to all students who are successful in the tryout held during the first week of each University year. A yearly Thanksgiving concert is given by the club, and a tour is usually made during the Christmas holidays by a team of sixteen, selected by the director.

The yearly selection of officers is held at the beginning of each school year. All officers except the director are chosen from the membership of the club. The club is under the direction of Irving M. Glen, Professor of Early English Literature and Dean of the School of Music.

*The Treble Clef*, a musical club for women, was organized during 1900. It consists of sixteen voices, four on each part, and is under the direction of Miss Stinson, of the University School of Music. Regular practice is held throughout the year, and an annual concert is given just before the Easter holidays.

#### MISCELLANEOUS

*The Societas Quirinalis* is a classical club, composed only of advanced students in Greek and Latin, for the purpose of furthering and fostering the pursuit of classical studies and for the social intercourse of students in that department of work. The *Quirinalis* meets on the first Tuesday of each month during the college year, social sessions alternating with public lectures and meetings, at which papers on special topics are read by selected members.

*A General Assembly* of the University is held each Wednesday at 10:00 A. M. Appropriate exercises are held and interesting and important addresses made by invited guests, or by the President and members of the Faculty of the University.

*Lectures.*—Frequent lectures by invited guests from Oregon and other states are given to students upon subjects allied to the course given in the University. These lectures are by those fitted by training and experience to speak with authority.

*Recitals.*—The School of Music gives recitals at stated times during the year, to which all students of the University are invited.

*The Alumni Association* of the University of Oregon was organized in 1879. The membership consists of all the graduates of the University. The objects of the association are to "advance the cause of higher education, to promote the interests of the University of Oregon, and to encourage mutual acquaintance and good-fellowship among the alumni."

*The Student-Body* exercises general control over all student affairs within the University. The general management of its affairs is entrusted to an Executive Committee, consisting of a President, Vice President, and Secretary. Officers are elected on the third Friday in May of each year.

## ORGANIZATION

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### GRADUATE SCHOOL.

#### COLLEGE OF LITERATURE, SCIENCE, AND THE ARTS :

General Courses in Liberal Arts.

Special Courses, including,

Course Preparatory to Medicine.

Course in Education.

Course Preparatory to Law.

Course Preparatory to Journalism.

School of Commerce.

#### COLLEGE OF ENGINEERING :

Civil Engineering.

Electrical and Mechanical Engineering.

Mining Engineering.

Chemical Engineering.

#### SCHOOL OF MUSIC :

General Courses in Theory and Harmony.

Piano.

Voice.

Violin.

#### SCHOOL OF MEDICINE.

A four years' course.

#### SCHOOL OF LAW.

A two years' course.

## THE GRADUATE SCHOOL

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### FACULTY

The faculty of each school or college consists of the President of the University, and the resident professors and other teachers giving instruction in the college.

### ORGANIZATION

The Graduate School of the University of Oregon was organized to offer advanced instruction upon the basis of work completed in the College of Literature, Science, and the Arts, the College of Science and Engineering, and the School of Mines and Mining. It meets the threefold purpose of extending general culture, for which the degree Master of Arts is granted; of encouraging the mastery of a specialty, for which the degrees Master of Science, Doctor of Philosophy, and the different Engineering degrees are granted; and of providing for those who desire a more thorough acquaintance with particular subjects than is offered in undergraduate work, but are not candidates for degrees.

### ADMISSION

Graduates of the University, or other colleges or universities regularly authorized to grant Bachelor's degrees, and others who can give satisfactory evidence that they have an equivalent preparation, are admitted to the Graduate School on the recommendation of the President and the Graduate Council; provided always, that the President and Council may prescribe for the candidate such preliminary work as they may deem necessary for entrance upon this course.

The candidate shall present his diploma and other credentials to the President and Council with an application showing his proposed work, as approved by the heads of the departments in which his major and minor subjects lie.

### THE MASTER'S DEGREE

The Degree of Master of Arts or Master of Sciences will be granted only after at least one full year's graduate work. The candidate must have completed with *high credit* seventeen hours per week or their equivalent (of which the thesis may count as high as seven) chosen from the courses of graduate study; other courses may be offered only by the special consent of the departments concerned,

and with the approval of the Graduate Council; but courses for which a professional certificate or diploma is given will not be counted toward this degree. Work may be confined to a single department, and may not be distributed among more than three. No later than the first of June preceding the Commencement at which the degree is to be taken, he must present to the head of the department in which his major study has been a type-written thesis which must embody scholarly research on some topic connected with that study. The thesis must be favorably passed upon by a committee made up of the heads of departments in which he has worked. The candidate must, before the degree is granted, pass a satisfactory examination, either oral or written, and, if required, before the committee which passed on his thesis.

Until further notice, in exceptional cases the degree of Master of Arts will be granted for work in *absentia* to those who fulfill the conditions for entrance to the Graduate School and pay the incidental fee; provided, the candidacy be approved by the President and Graduate Council; the proposed outline of work cover a full college year, and be approved in advance by the department concerned; and the candidate shall present himself at the University for examination, deposit a type-written thesis embodying scholarly research, and pay the diploma fee.

### ENGINEERING DEGREES

Bachelors of Science in Engineering of this University, or of other colleges or universities of equal rank, may receive at the expiration of one additional year of study the professional degree of Civil Engineer, Electrical Engineer, Chemical Engineer or Mining Engineer, appropriate to the undergraduate course taken, in accordance with the requirements prescribed in the College of Engineering.

Bachelors of Science in Engineering may receive the professional degree named above without the additional year of study at the University, who have spent at least three years actual time in professional practice in positions of responsibility, in the designing, construction or operation of engineering works, and who shall furnish details of satisfactory evidence as to the nature and extent of this practice.

They must submit an engineering thesis accompanied by detailed explanations, drawings, specifications, estimates, etc., embodying the results of their work or observations. If approved, the thesis and all accompanying material shall be the property of the University. All theses for any degree must be delivered to the Dean of the College of Engineering on or before the 15th day of May.

### DEGREE OF DOCTOR OF PHILOSOPHY

Beginning with the year 1900-1901, the degree of Doctor of Philosophy was opened to graduate students under the following conditions:

1. The candidate must be a baccalaureate graduate of this University or of a college or university whose degrees are accepted as equivalent to its own; or he must give satisfactory evidence to the Graduate Council that he possesses an equivalent preparation for graduate work.

2. He must make application to the Dean of the Graduate School before the first day of October preceding the Commencement at which he intends to present himself for the degree, and must then give satisfactory evidence of his ability to read such German and French as may be necessary for the proper prosecution of his studies.

3. He must have spent at least three full years in graduate work at this or some other approved university; the last year must be spent as a resident student of this University. The time spent in attaining the degree A. M. may be counted toward satisfying this time condition.

4. He must present a thesis showing the results of original research of a high character, and must pass acceptable examinations, both written and oral, in one chief or major study and two allied, subsidiary, or minor studies, not more than two of which may be in the same department. The oral examination shall be before the Faculty of the Graduate School, where he may be required to defend his thesis. The thesis, embodying the results of original research in some subject connected with his major study, must be presented to the head of the department in which the work was done not later than the 1st of May preceding the Commencement at which the degree is to be conferred, and if approved by him is to be placed on file for inspection in the Library for at least two weeks. If finally approved, not less than 100 printed copies must be delivered to the Librarian of the University, before graduation, or proper security be given for the printing of that number; provided, that if the thesis has already been printed, ten copies only shall be deposited with the Librarian.

## THE COLLEGE OF LITERATURE, SCIENCE, AND THE ARTS

### FACULTY

The Faculty of each College consists of the President of the University and the professors, assistant professors and instructors giving instruction in the College.

### ORGANIZATION

The College of Literature, Science, and the Arts includes the following departments:

Biology, Chemistry, English, including Rhetoric and American Literature, English Language and Early English Literature, and English Literature, Economics and Sociology, Education, French, Geology, German, Greek, History, Latin, Mathematics, Philosophy, Psychology, Physics.

### SPECIAL COURSES

A number of courses specially preparatory to professional work are outlined by the various departments.

#### COURSE PREPARATORY TO MEDICINE

Students expecting to study medicine should make Biology their major subject. The pre-medical studies offered by the department prepare the student to anticipate one year in the Medical School of the University of Oregon and are also accepted by many of the standard Medical Colleges as the equivalent of one year's work of the regular four years' course.

#### COURSE IN EDUCATION

The rapid growth of the high schools of the state has created an urgent need for teachers with special training in methods of high school organization and instruction. It is the aim of the University of Oregon to meet this need by offering a special course in Education, in which instruction will be given in history of method, administrative problems, organization, and such courses as will prepare teachers especially for work in the high schools. In addition to the strictly professional work, the department of Education offers two general outlines of special preparation for teaching; one for students prepar-

ing to teach English, History, or Modern Languages, and the other for those preparing to teach Science or Mathematics.

The University conducts a Teachers' Bureau for the purpose of bringing its students and graduates to the notice of school officers desiring capable teachers. The calls made on the bureau for high school principals and teachers are usually in excess of the supply

#### COURSE PREPARATORY TO LAW

Not only does any course leading to an A. B. degree give a great advantage to the student of law, as the requirements for admission to the best law schools indicate, but a college course arranged especially with the study of law in view can be made of great additional value. The student familiar with the political, economic, and social conditions and institutions that have determined the development of law will have a grasp of the principles of law, and will naturally pursue a method in future study that will make possible much higher efficiency in his profession. The departments of Economics and History offer the courses which constitute this basic study in preparation for law. The department of English offers the opportunity to gain a mastery of clear analytical expression of thought, peculiarly valuable to the lawyer.

#### COURSE PREPARATORY TO JOURNALISM

The departments of English outline courses suited to the needs of those expecting to enter journalism. A liberal preparation for journalism includes work in many departments, but the general supervision rests naturally with the special English department of Rhetoric.

Composition, Literature, History, Economics, and the languages constitute a large part of the course.

#### SCHOOL OF COMMERCE

The different branches of the public service like the civil and consular service, and the various lines of industrial and commercial pursuits, like banking, transportation, domestic and foreign commerce, are rapidly approximating the character of professions. To achieve the largest measure of success in these and meet the requirements of highest citizenship the principles of the social, physical, and mathematical sciences concerned must be possessed and applied. Modern industrial processes, methods and organization are changing rapidly in magnitude, complexion, and social character in relation to public good. The historical, social, economic, political, and scientific studies and improvements in educational methods are fortunately keeping pace in their development with the requirements of the



business world. Hence the University departments concerned are outlining combinations of courses that will meet closely the special needs of young men aiming towards business courses in industrial and commercial fields.

### ADMISSION

*Methods of Admission.*—There are two ways of entrance to the University: first, by examination; second, by recommendation from accredited schools without examination. All students from schools not accredited to the University are subject to examination at the University. The examination will be held during the first week of the college year.

*Accredited High Schools.*—It is the policy of the University to so adjust its standard of entrance requirements as not to be out of touch with the schools of the state that do earnest work, and at the same time to protect the scholarship of the University. It will also be the policy, as far as possible, to make the accrediting uniform for the various departments. Schools, therefore, that have a four years' course, with a nine months' year, and subjects running for a half year or more, five times per week, with recitations forty minutes long, and which have the subjects in the state high school course, or their equivalent, will, as far as possible, have their students admitted to the freshman class in the University.

Schools which do not have a nine months' year, five recitations a week, with forty minutes to each recitation, and which have short time subjects running ten, twelve, or fourteen weeks each, will be given proportional accrediting, depending upon the time given and the quality of the work done. The state high school course is the basis of the requirements for entrance to the University and the adoption of the state course would at once simplify the passage of students from high schools into the University, and settle almost, if not quite all the questions as to accrediting. It is earnestly hoped therefore, that all high schools will adopt the state course.

*College Credit for Extra Entrance Subjects.*—Credit for work done above entrance requirements, in subjects not preparatory, may be granted by the heads of departments at their discretion. An application blank for advanced standing will be furnished by the Registrar.

### REQUIREMENTS FOR ENTRANCE TO THE FRESHMAN CLASS

*English.*—Every student at the beginning of his freshman year shall satisfactorily pass an examination testing facility and accuracy in the use of English; or, he may waive this requirement by taking a course of two semester hours in English during his freshman year, for which college credit will be given.

*Number of Units Required.*—For entrance to the Freshman Class, fifteen units will be required; provided, that conditions amounting to two units may be allowed, if the applicant's work is otherwise satisfactory.

By a unit is meant a subject running one year (36 weeks) five times a week, with recitations not less than forty minutes in length.

#### ENTRANCE SUBJECTS

English.....	4	units.
Algebra (Wells' Essentials).....	1½	"
Geometry, Plane and Solid.....	1½	"
History, Greek and Roman, and Mediæval with special reference to England, or American History and Constitution.....	2	"
Physical Geography.....	1	"
*Botany or Physics.....	1	"
†Latin.....	2	"
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	13	units.

The balance of the fifteen units must be made up from the following:

Latin.....	I or 2	units.
German.....	I or 2	"
Botany.....	I	"
Physics or Chemistry.....	I	"
History, Modern.....	I	"
History, American and Constitution.....	I	"

\*In the Engineering groups, Physics is required; in the Pre-Medical course, Botany is required.

\*French or German may be substituted for Latin as an entrance requirement in the Engineering groups.

Zoology	½ unit.
Astronomy	½ "
Geology	½ "
Physiology	½ "
Higher Arithmetic	½ "
Elementary Political Economy	½ "
Book Keeping	½ "
Drawing, Mechanical or Free Hand	½ "

By combining any two-----I unit

#### DETAILED LIST OF ENTRANCE SUBJECTS

*English.*—All regular students must present four units (twenty hours) of entrance English. The entrance English requirements will conform to the state high school course.

All students entering advanced college classes must be accredited with English done elsewhere or fulfill entrance conditions here, through examination or work in class. All freshmen entering the University will be examined in English composition (except such as prefer to elect a freshman course in English composition of, at least, two semester hours). The examination is designed to test the student's ability to write clear, correct, idiomatic English. He will be asked to write two essays of not less than two hundred words each, one upon some familiar subject drawn from his experience or observation and the other upon a subject selected from the books mentioned below. These essays will be tested on the following points: The language must be clear and grammatical; the spelling, punctuation, and capitalization must be reasonably correct; choice of words must show discrimination; sentences and paragraphs must be constructed in accordance with the simpler principles of composition. The essays must show ability to organize thought consecutively. (A topical outline may accompany each essay.)

No student will be passed whose work shows serious defects in spelling, punctuation, grammar, and structure of sentences and paragraphs, or who presents illegible or untidy manuscript.

As preparation for satisfactory work in the University, constant and regular practice in writing is earnestly recommended. Throughout the four years of the high school course the student should write exercises and revise them after correction by the teacher so as to secure accuracy and self-reliance. The subjects upon which the student writes should be drawn from both literature and daily life and experience, and some degree of ability should be secured in each of the types of discourses: description, narration, exposition, and argument.

The fundamental principles of grammar should be mastered in theory and practice. Such principles of rhetoric as are adapted to the student's practical use should be emphasized; principles that make his speech and writing definite and effective, such as good usage in choice of words, correct sentential structure and paragraphing, and outlining of thought. (A university bulletin treating of preparatory English in detail will be sent on application, also library lists for all the grades of the grammar and the high schools.)

It is hoped that the high schools will find the following classification of entrance requirements valuable. It is suggested that under "Books for Thorough Study" the work shall take note of the following points: (a) The language, including the meaning of words and sentences, the important qualities of style, and the important allusions; (b) The plan of the work, i. e., its structure and method; (c) The place of the work in literary history, the circumstances of its production, and the life of its author; and that all details be studied, not as ends in themselves, but as means to a comprehension of the whole.

#### NINTH GRADE

##### I. Books for General Reading and Composition work.

Dickens: Christmas Carol.  
Lowell: Vision of Sir Launfal.  
Goldsmith: Vicar of Wakefield.  
Hawthorne: The House of the Seven Gables.  
Whittier: Snowbound and other poems.

##### II. Books for thorough study.

Shakespeare: Merchant of Venice.  
Franklin: Autobiography.

#### TENTH GRADE

##### I. Books for General Reading and Composition Work.

Longfellow: Tales of the Wayside Inn.  
Addison: Sir Roger de Coverley.  
Shakespeare: Julius Cæsar.  
Holmes: Selected Poems.

##### II. Books for Thorough Study.

Burke: Conciliation of America.  
Lincoln: Gettysburg, Inaugural and other Speeches.  
Macaulay: Essay on Addison.  
Pope: Homer's Iliad, I, VI, XXII, XXIV.

## ELEVENTH GRADE

## I. Books for General Reading and Composition Work.

Tennyson: Enoch Arden and Other Poems.

Emerson: Two Selected Essays.

Carlyle: Essay on Burns.

Burns: Cotter's Saturday Night and Other Poems.

Hanson: Essay on Burns and Selected Poem from Burns.

DeQuincy: Revolt of the Tartars.

## II. Books for Thorough Study.

Webster: Reply to Hayne.

Shakespeare: As You Like It.

Macaulay: Essay on Milton.

Milton: L'Allegro, Il Penseroso, Comus and Lycidas.

## TWELFTH GRADE

## I. Books for General Reading and Composition Work:

Cooper: Last of the Mohicans.

Elliott: Silas Marner.

Tennyson: The Princess.

Coleridge: Ancient Mariner.

Scott: Ivanhoe.

Bunyan: Pilgrim's Progress.

## II. Books for Thorough Study.

Shakespeare: Macbeth.

Emerson: The American Scholar.

Milton: Paradise Lost, I and II.

Western Authors: Five Selected Poems.

*Algebra.*—The requirements in Algebra embrace the following subjects: Factors, common divisors and multiples, fractions, involution, including the binomial theorem for positive integral exponents; evolution, theory of exponents, radicals and equations involving radicals, ratio and proportion, elementary logarithms; the ordinary methods of elimination, and the solution of numerical and literal equations of the first and second degrees, with one or more unknown numbers, and problems leading to such equations.

Work based on any of the following text-books will be accepted, the work to have five full recitation periods per week for a year and a half, a school year to be at least thirty-six weeks, and a recitation to be at least forty minutes in length.

Wentworth's Complete Algebra, completed, except chapters 22 to 34 inclusive; Well's New Higher Algebra, completed, except chap-

ters 36 to 40 inclusive; and Well's Essentials of Algebra, the state text-book.

*Plane and Solid Geometry.*—A course based on any one of the following text-books will be accepted; the work to cover five recitations per week for one and a half years.

Wentworth's Plane and Solid Geometry, edition of 1899, completed, including two-thirds of the exercises; Philipps and Fisher's Abridged Geometry, completed, including all problems; Well's Essentials of Plane and Solid Geometry, completed, including all exercises.

The student should be required to state definitions clearly, whether in the language of the text-books or not, and in solving a problem or proving a proposition he should be able to prove every statement made. All figures should be constructed by the student with strict accuracy, on correct geometrical principles, using rule and compass; and this should be persisted in until it can be done with ease. Pains should be taken that original demonstrations be given in good form. Besides oral recitations, the student should be required carefully to write out his own demonstrations, and to apply geometrical principles to the solution of practical and numerical examples. He should be required to demonstrate propositions and solve problems without the aid of the text-book.

*History.*—Five recitations a week for two years. Any of the following:

1. Greek and Roman, with connected geography. (a) Greek History to death of Alexander; (b) Roman History to A. D. 800. Botsford's Greek History and Botsford's Roman History are the state texts.

Students preparing for the University in History are strongly urged to take Greek and Roman History.

2. Mediæval and Modern History.—The following indicate the preparation required: Myers' Mediæval and Modern History, Fischer's Growth of Nations, Adams' European history.

3. English History.—Ground covered in History of England by Coman and Kendall.

4. American History and Constitution.—Montgomery's Student's History of the United States, Channing's Student's History of the United States, or some book of like nature, provided a more elementary History has been previously studied. Otherwise some briefer standard high school History. Strong and Schafer's Government of the American People.

In all cases the text-book should never be depended upon entirely; supplementary work should be done with one or two other text-books, and at least one large General History for reference. See the Report of Committee of Seven on the Study of History in Schools.

*Science.*—Five recitations per week for a year in each subject.

Science work, to be accepted for entrance to the University, must be from a standard high school text book; thorough laboratory practice is absolutely necessary when the subject allows. Laboratory manuals and note books must be in constant use, and students coming from schools not accredited to the University must present their laboratory note-books, signed by the teacher. In Chemistry, some text equivalent to Remsen's Briefer Course must be used; in Physics, a text equivalent to Carhart and Chute; in Botany, to Bergen's Elements; and in Physical Geography, any standard text.

I. CHEMISTRY.—In cases where the Chemistry offered is considered by the head of the department of Chemistry to be the equivalent to Course 1 (see list of courses in Chemistry), the student will be admitted to Course 2, satisfactory work in which will entitle him to one unit college credit in case the preparatory Chemistry was used to fulfill entrance requirements, or to two units college credit in case it was not so used.

PHYSICS.—All students who offer for entrance a half year or more of Physics, as laid down in the State High School Course, will receive matriculation credit therefor. It is very desirable, however, that the work should extend over a full year, and should include a substantial amount of laboratory work actually performed by the student.

Students wishing to take Physics in the University are advised to begin their work with Course I, Elementary Physics. If the preparatory work has included a considerable amount of actual work in the laboratory, so selected as to illustrate clearly the important fundamental principles of the science, and is intelligently recorded in a satisfactory note book, the student may be admitted directly to Course 2, General Physics. A knowledge of Trigonometry is required for admission to this course.

Students entering the Course Preparatory to Medicine and Dentistry must either offer both Chemistry and Physics for entrance, or take one or both during their course.

*Greek.*—Five recitations per week each year.

First Year—Greek lessons and Zenophon's Anabasis begun.

Second Year—Zenophon, four books of the Anabasis.  
Third Year—Homer, first three books.

*French.*—Five recitations per week for one year. Written exercises and grammar work; systematic work in French pronunciation, and as much practice in reading as possible to give facility in reading easy French prose.

*German.*—Five recitations per week for one year. Written exercises and grammar work and systematic training in German pronunciation. As much drill as possible in rapid reading of German prose and poetry.

*Latin.*—All students must have two years of Latin before beginning the Freshman year, except in the Engineering groups, in which two years of either French or German will be accepted in place of Latin.

Five recitations a week each year.

First Year—Latin lessons and grammar, and Viri Romae, or Nepos, or Cæsar's Gallic War begun.

Second Year—Cæsar, four books.

Third Year—Cicero, six or seven orations, including the four against Cataline, and Sallust's Jugurtha.

Fourth Year—Vergil, six books of the Aeneid.

### REQUIREMENTS FOR ADMISSION TO SPECIAL STUDENT STANDING

The privileges of a Special Student are not granted to those who come from the schools with insufficient preparation for regular standing. They are intended for those who for any reason are unable to complete a college course, but who are qualified by age, character, practical experience, purpose, and habits of study, to profit by university courses. Such properly qualified persons not candidates for a degree, who fulfill all the requirements for entrance to the Freshman year, may be admitted to the University to pursue one or more college subjects for which they may be fitted; provided, that persons of maturity, twenty years of age or over, and teachers in public or private schools, may, at the discretion of the Committee on Special Students, enter as special students without conforming to the above requirements, upon presenting satisfactory credentials and testimonials. These requirements shall not apply to special collegiate or other courses where requirements for entrance are specified.

The committee reserve the right to discuss the programme pro-

posed by the student and to require such changes as may in their judgment seem wise. Students other than those of mature years are always required to furnish the committee with evidence that the course proposed subserves a definite object which they have in view.

No student can be accepted without condition whose written English work is seriously defective in point of penmanship, spelling, punctuation, grammar, sentence structure, and paragraphing.

### GRADUATION

The degree of Bachelor of Arts is conferred upon students of the College of Literature, Science, and the Arts, who have been in residence at least one academic year, and who have secured one hundred and twenty semester hours of credit exclusive of physical training; but the degree of Bachelor of Science may be conferred upon students conforming to the requirements enumerated above and electing majors in Natural Science or Mathematics, provided that written request for this degree be filed with the Registrar of the University at least thirty days before the date upon which the degree is to be granted.

### REQUIRED WORK

A semester hour is the credit given for a course consisting of one recitation, lecture, or laboratory period a week for one semester or twenty weeks. Three hours shall constitute a laboratory period.

*Major.*—Every student on entering the University must choose a major subject. The work required in the major subject (including thesis) shall not be less than twenty nor more than forty semester hours.

*Thesis.*—All candidates for the Baccalaureate degree shall present an approved graduating thesis in their major subject. Credit not to exceed four semester hours may be allowed for the preparation of the thesis.

*Physical Training.*—In addition to the one hundred and twenty semester hours required for graduation, four semester hours shall be earned in physical training, two in the Freshman year and two in the Sophomore. In case students are for valid reasons excused from physical training, such students shall earn an equivalent amount of credit in other departments. Two hours in the gymnasium shall be equivalent to one semester hour.

*Language.*—Every candidate for the degree of Bachelor of Arts

shall secure during his Freshman and Sophomore years credit in languages other than English to the extent of 14, 16, 18, or 20 semester hours, which shall be taken in two year-courses.

*Freshman Studies.*—The studies of the Freshman year, except as heretofore provided, shall be chosen from the following list of subjects, consisting of the courses offered by the several departments as Freshman work: Botany 1, Botany 2, Botany 3, Zoology 1, Zoology 2, Chemistry 1, Economics 1, Economics 2, Politics 13, Politics 14, Rhetoric and Composition 1, Rhetoric and Composition 1a, Rhetoric and Composition 1b, Rhetoric and Composition 1c, Rhetoric and Composition 1d, English Literature 1, English Literature 2, Early English Literature 1, Public Speaking 1, Geology 1, Greek 1 or 2, History 1, History 2, Latin A, Latin 1, Latin 2, Mathematics 2, Mathematics 3, German 1 or 2, French 1 or 2, Spanish 1, Italian 1, Physics 1, Physics 2, Physics 3, Psychology 1.

## COLLEGE OF ENGINEERING

### FACULTY

The Faculty of each College consists of the President of the University and professors, and assistant professors, giving instruction in the college.

### ADMISSION

The requirements for admission to the College of Engineering are the same as those for admission to the College of Literature, Science, and the Arts (see page 26), except that candidates may offer two years of either French, German, or Latin, and must have had Elementary Physics. Students who have not had Elementary Physics must take the subject at the University, but it will not count toward graduation.

### GRADUATION

The degree of Bachelor of Science is conferred upon students of the College of Engineering who have secured 120 semester hours of credit, exclusive of four semester hours of required physical training, and including the work required by their major professor.

### DEGREE OF ENGINEER

The professional degree of Engineer is conferred upon graduates of the University, or of other institutions of like rank, who complete

a year of professional study beyond the baccalaureate requirements of the department in which the degree is sought, and who present an approved thesis showing ability to do independent work.

### EQUIPMENT

The laboratories, cabinets, workshops, drafting rooms, and the large assortment of instruments for field work in surveying, hydrography, and practical astronomy, offer excellent opportunities for effective work in the courses given.

The new Testing Laboratory, established by the last Legislature, will be in readiness for work during the year 1905-6. It will be equipped with the necessary machines and appliances for testing the strength of timber, stone, and metals, the largest machine being a 200,000-lb. universal testing machine.

### COURSES OFFERED

Courses are offered in Civil Engineering, Electrical and Mechanical Engineering, Mining Engineering, and Chemical Engineering. The work of the first two years necessarily consists largely of courses in Mathematics, Physics, Chemistry, Shopwork, and Drawing, which are prerequisite to the technical courses proper. Changes from one course to another are permitted in accordance with the general regulations.

Students whose time and means permit are advised to spend two years or more in the College of Arts, taking courses in Mathematics, Physics, Chemistry, French, German, Economics, History, English, and such other subjects as they may desire. In this way they will secure a broader preparation, and by a proper selection of subjects will be able to complete the Engineering course in three additional years.

### CIVIL ENGINEERING

For description of the courses offered in the department of Civil Engineering, see Civil Engineering under Announcement of Courses. The courses embrace Drawing and Descriptive Geometry, Surveying and Geodesy, Mechanics, Highway and Railway Engineering, Hydraulic and Municipal Engineering, and Structural Engineering.

### MECHANICAL AND ELECTRICAL ENGINEERING

For work offered, and description of equipment in detail, see Mechanical and Electrical Engineering under Announcement of Courses.

### THE SCHOOL OF MINES AND MINING

The School of Mines, which has been established some seven years, has prospered to an extent that makes necessary an enlargement of its work and equipment. The importance to the state of mining and allied industries makes it of great moment that the best instruction possible be available in these branches within the state.

Arrangements will be made for observation and field work in the mining districts, and, for students who desire to do so, for work in the mines during the summer. The Blue River and Bohemia mining districts are close at hand, and the great mining districts of Eastern and Southern Oregon are easily accessible.

The main attention for the present will be given necessarily to gold and silver mining and metallurgy, although attention will also be given to the metallurgy of iron, steel, and copper. As the number of instructors in the University increases, options will be introduced so that students may specialize in a chosen department of mining.

The demands upon the Mining and Metallurgical Engineer are varied, and it is the policy of the University to give the student the underlying principles of Mathematics, Physics, Chemistry, Mineralogy, Geology, Mining Engineering and Metallurgy, together with some practical knowledge of Civil, Electrical, and Mechanical Engineering. The courses will deal with the problems that actually arise in mining, in the treatment of ores, and in smelting.

See announcement of courses under Mines and Mining.

### CHEMICAL ENGINEERING

Chemical Engineering is one of the very youngest in the field of special engineering subjects, having been evolved in recent years in response to a constantly increasing demand for men who are not only sufficiently versed in chemical theory to understand the chemistry of technical processes, but who shall at the same time be possessed of such a knowledge of mechanical engineering that they will be enabled to construct whatever machinery or apparatus may be necessary for the most thorough practical application of chemical principles to the various industrial enterprises of the time.

It is to be seen from this characterization of his work that the function of the chemical engineer is a dual one; it has been, indeed, for the very purpose of uniting in a single individual the peculiar qualifications possessed by the laboratory man upon the one hand and the man of practical affairs upon the other,—a union that has been absolutely necessary for the proper co-ordination of laboratory and shop,—that the field of Chemical Engineering was created. That

the creation has been a wise one is demonstrated every day in the constant improvements that are being made in chemico-technical processes,—improvements that are due almost wholly to the efforts of men who have exactly the equipment for work that has been outlined as necessary for the chemical engineer. The extent of the field is so wide, moreover, and the variety of special lines of work that it offers is so great that it should appeal most strongly to young men inclined toward a scientific-industrial career, and this should be especially true in the Pacific Northwest, where resources enormous in magnitude await development.

The department of Chemistry, in co-operation with the engineering departments, directs the course in Chemical Engineering.

## GENERAL INFORMATION

### UNIVERSITY REGULATIONS

#### REGISTRATION

On the appointed Registration Days, in September and February, each student must present himself at the Registrar's office and obtain a *Certificate of Registration*.

#### STUDY CARD

At the time of registering, the student receives a blank Study Card for the selection of studies for the semester. This card properly filled out and signed by the student's adviser, (head of department in which the major subject is taken) must be filed with the Registrar within three days of the date of registration. Late Study Cards will not be received unless endorsed by all the instructors under whom work is taken.

#### ENROLLMENT IN CLASSES

At the beginning of each semester a student must present his certificate of registration to the instructors of the courses in which he desires to be enrolled, and satisfy the instructor in charge that he has had the prerequisite work.

#### CHANGE OF STUDIES

A student desiring to drop a subject or take up a new one after his Study Card has been filed, must obtain the written consent of his adviser and the instructor concerned on a blank form provided by the Registrar's office.

### AMOUNT OF WORK

The maximum number of semester hours for students in the first three years is 16, minimum 13; for students in the senior class, maximum 16, minimum 12.

### MINIMUM AMOUNT OF WORK ACCEPTED

The failure upon the part of a regular student to make nine hours credit in a semester shall automatically suspend the student from the University for the following semester; a second failure to make nine hours credit in a semester shall permanently sever the student's connection with the University.

### CONDITIONS AND FAILURES

All conditions must be made up within one year.

Examinations for the removal of Conditions will be held on the first Monday and the following Tuesday in December, and on the Monday and Tuesday preceding the regular examination period in the second semester.

Entrance conditions may be made up either at the High School, or under a private tutor approved by the head of the department.

### ADVANCED STANDING

Advanced standing will be given students coming from institutions of collegiate rank, who can satisfy the heads of the University departments that the courses offered are the equivalents of those given by the University.

### CHANGE OF MAJOR

A student may change majors at the beginning of any academic year by filing a petition, indicating the proposed change, with the Registrar. Change of major at any other time shall be made only with the consent of the departments concerned, and after action by the University Faculty.

### SCHEDULE OF MARKS

A equals 95 to 100 per cent. B, 90 to 95 per cent. C, 80 to 90 per cent. D, 70 to 80 per cent. E, failure. 70 per cent is the passing mark, and below 70 is failure.

Inc., Incomplete. Quality of work satisfactory, but unfinished for reasons acceptable to Instructor, and additional time granted.

W, withdrawal from class before middle of semester.

Incomplete work must be completed by the student within one semester; conditions must be removed within one year. Failure means that the student cannot receive credits until the work is regularly re-registered and taken over again.

**HONORS**

Honors will be assigned to graduates as follows :

Students shall graduate *summa cum laude* when at least half their credits rank A and not more than three credits, C; none below ; *magna cum laude* when not more than three credits rank below B, and none below C ; *cum laude* when not more than three credits rank below C ; when a student's credits rank lower than any of the above, he graduates *rite*.

**PRIZES AND MEDALS****PRIZES**

The Failing Prize, not to exceed one hundred and fifty dollars, is the income from a gift of twenty-five hundred dollars made to the University by Hon. Henry Failing, of Portland. It is awarded "to that member of the Senior Class in the Classical, the Scientific, or the Literary Course prescribed by the University, or such courses as may, at the time, be substituted for either of said courses, who shall pronounce the best original oration at the time of his or her graduation."

The Beekman Prize, not to exceed one hundred dollars, is the income of a gift of sixteen hundred dollars made to the University by Hon. C. C. Beekman, of Jacksonville. It is awarded under the same conditions as the Failing prize, for the second-best oration.

The Bennett Prize is the income from a gift of four hundred dollars made to the University by Hon. Philo Sherman Bennett, of New Haven, Connecticut. It is given for the best student paper on the principles of free government.

**ALUMNI MEDAL**

The Alumni Medal is presented annually by the Alumni Association of the University to the best individual student debater. The contest is held in March.

**EXPENSES****INCIDENTAL FEE**

There is no tuition at the University of Oregon. The incidental fee, payable each year by students in all departments of the University, is \$10.00. There is also a student-body tax of \$5.00 per year for the support of student enterprises. Graduate students in absentia are not required to pay the student-body tax. The fees in the School of Music vary with the instruction.

A diploma fee of \$10.00 is charged for the first degree taken, and

of \$10.00 for each succeeding degree. The rules prescribe that no person shall be recommended for a degree until he has paid all dues, including the diploma fee.

**LABORATORY FEES**

In all laboratory courses, in whatever department, a deposit is required to cover waste and breakage. At the end of the year the balance of the deposit, over and above waste and breakage, will be returned to the student. The amount of the deposit varies according to the courses taken.

**GENERAL EXPENSES**

The expenses for one person for a year vary according to the circumstances of the case, but in general are very low. The following estimate is probably substantially accurate: Room from \$.50 to \$1.50 per week ; board from \$2.50 to \$4.00 per week ; board and room in Men's Dormitory, \$3.25 to \$3.75 per week ; books from \$5.00 to \$12.00 per year. Many students rent rooms and do light housekeeping, thus reducing the cost of living to a very low point. A fair estimate of the yearly expense of those who hire lodgings and board, either in the Dormitory or outside, is \$175.00 to \$250.00 per year. For those who do light housekeeping the cost is materially less.



## DEPARTMENTS OF INSTRUCTION

### BIOLOGY

Assistant Professor Sweetser

Mr. Bovard

(a) Introductory Courses as a foundation for study in Zoology and Botany; (1) for students preparing for the study of Applied Science; (2) for students seeking general culture; (3) for students preparing for the study of Medicine.

(b) Intermediate Courses for students preparing for more extended study in Zoology, Medicine, Physiology, Embryology, Botany, Palaeontology, Geology.

(c) Advanced Courses for students in the Graduate School, and for those seeking specialized study and research as far as the resources of the department will permit.

(d) Premedical Course for students intending to study Medicine, Dentistry, and Pharmacy. On the completion of this course students will be given one year's credit at the Medical School.

Freshman year.....	Zoology 2
Sophomore year.....	Zoology 3, Botany 2 and 3
Junior year.....	Zoology 4, Botany 4
Senior year.....	Zoology 5 and 6, Botany 5

For Major work in this department courses in Botany 1, 2, and 3, and Zoology 2 will be considered as prerequisites.

Students proposing to study Pharmacy should elect Zoology 1, Botany 1, 2, 3, 4, 6, and are strongly urged to take most all of the work in the course Preparatory to Medicine and Dentistry.

### BOTANY

1. *Introductory Course*.—Three Lectures and one Laboratory period. This course or its equivalent is required as an introduction to Course 2. It is intended for beginners and those who wish to get a comprehensive view of the subject. May be taken the same year with Zoology 1. Open to all Freshmen.

*Four hours, second semester.*

2. *Cryptogamic Botany*.—One Lecture and two Laboratory periods. Morphology, Physiology and classification and relationships. Prerequisite, Course 1 or its equivalent. Open to all Freshmen.

*Three hours, first semester.*

3. *Phaenogamic Botany*.—One Lecture and two Laboratory periods. Morphology, Physiology, and classification of Phaenogams. Prerequisite, Course 1 or its equivalent. Open to all Freshmen.

*Three hours, second semester.*

4. *Medical Botany and Pharmacoognosy*.—One Lecture and two Laboratory periods. The study of some of the typical medicinal plants, their structure, medical properties, and common adulterants. Prerequisite, Course 2.

*Three hours, second semester.*

5. *Bacteriology*.—One Lecture and two Laboratory periods. Laboratory technique and recitation, methods of staining, examining and cultivating bacteria. Advised for students intending to study Medicine.

*Three hours, both semesters.*

6. *Economic Cryptogams*.—Biological examination of water, bacteriology of milk, foods, etc.

*Hours to be arranged.*

7. *Systematic Botany*.—(a) Structure, classification and relationships of the Cryptogam, Mycology, and Algology. (b) Structure, classification, and relationships of the higher Cryptogams, mosses and ferns. Also a similar study of the Phaenogams.

*Hours to be arranged.*

8. *Plant Physiology*.—This will include a more or less extended study of the functions of vegetable life.

*Hours to be arranged.*

### ZOOLOGY

1. *Introductory Course*.—Three Lectures and one Laboratory period. The course is intended for beginners and for those who wish to get a comprehensive view of the subject. Open to all Freshmen.

*Four hours, first semester.*

2. *Structural Zoology*.—One Lecture and two Laboratory periods. Study of types of invertebrate and vertebrate animals, from simple to the more complex forms with reference to structure and relationships. Prerequisite to all the higher courses in this department, or to be regarded as a culture study, affording the student a general idea of different phenomena of animal life. Open to all Freshmen.

*Three hours, both semesters.*

3. *Mammalian Anatomy*.—One Lecture and three Laboratory periods. Dissection of a typical mammal followed by a study of Human Osteology and Syndesmology. Prerequisite, Course 2.

*Four hours, both semesters.*

4. *Normal Histology*.—One Lecture and two Laboratory periods. Preparation of and the study of the Microscopical Anatomy of

the leading tissues of the body and the methods of hardening, staining, imbedding, sectioning, etc. Prerequisites, Courses 2 and 3.

*Three hours, both semesters.*

5. *Vertebrate Embryology*.—Two Lectures and two Laboratory periods. Study of the development of the chick and comparison with that of other vertebrates. Prerequisites, Courses 2 and 3.

*Four hours, second semester.*

6. *Advanced Physiology*.—Three Lectures and one Laboratory period. The study of the functions of the various tissues of the body. Prerequisites, Courses 2 and 3, and must be preceded by or taken in conjunction with Organic Chemistry and Physics.

*Four hours, both semesters.*

7. *General Anatomy and Systematic Zoology*.—This course is intended for advanced students and takes up the study of the anatomy, life history, and classification of the local fauna.

*Hours to be arranged.*

NOTE—Botany 4 and Zoology 4 will not be given during year of 1905-6.

#### EQUIPMENT

The Biological Department is thoroughly equipped for work. It has a large lecture room and operating room, combined, and a large well lighted laboratory. The equipment of the department includes among other things twenty-one compound and dissecting microscopes, with low and high power objectives, including one-twelfth homogeneous immersion, lens, camera, lucidas, embryograph; instruments for microscopic measurements; microtome, imbedding baths, incubators, digestion oven, Fick's spring monometer, Marey's tambours, kymograph, sphygmograph; induction coil and battery, time marker and clock, centrifuge with tubes, and haematokrit, etc.

It has also a series of skulls and skeletons, illustrating structure of different mammals; birds and reptiles; articulated and disarticulated human skeletons; many human skulls, disarticulated, sectional, and foetal.

The museum contains a fine series of mounted and unmounted birds and mammals, to illustrate different groups; a collection of Oregon reptiles, made by Mr. J. R. Wetherbee; a series of fish, mostly Salmonidae from the Columbia River, donated by the United States Government; a collection of food fishes of the Oregon coast, made by Mr. B. J. Bretherton, of Newport, Oregon, and presented to the University.

It is further supplied with an excellent series of invertebrate animals, models of types from France and Germany, and a fine series of botanical models of types of various groups of flowers, and of representatives of insectivorous plants. To this must be added casts of brains and head formations of various races, and a particularly fine series of wax models made from drawings by His in Ziegler's Laboratory at Freiburg, illustrating different stages in the development of the human embryo and that of the chick; also a similar series showing the development of amphioxus, different forms of segmentation, etc., etc.

Mr. Thomas Howell has donated his large herbarium, containing many type species, to the University. This collection will be available for students in Systematic Botany.

The laboratory is supplied with a large aquarium for the preservation of specimens, and both laboratory and lecture room are lighted by electricity and furnished with gas from the plant of the University. Constant additions are being made to the apparatus and collections.

#### LABORATORY FEES IN BOTANY AND ZOOLOGY

COURSE	FEE	AMOUNT RETURNABLE
Botany 1	\$1.00	\$.50
Botany 2	1.00	.50
Botany 3	1.00	.50
Botany 4	4.00	2.00
Botany 5	4.00	2.00
Botany 7	1.00	.50
Zoology 1	1.00	.50
Zoology 2	1.50	.50
Zoology 3	5.00	2.50
Zoology 4	5.00	1.50
Zoology 5	4.00	1.00
Zoology 6	5.00	1.50

All laboratory accounts closed up at end of school year.

#### CHEMISTRY

Assistant Professor Stafford

Mr. Veazey (1904-5)

Ten rooms in McClure Hall are at the disposal of this department. They are well equipped with apparatus and appliances of the latest and most approved forms, so that the work undertaken in this subject can be carried on efficiently. The lecture room is commodious

and admirably adapted to its purpose; three large laboratories, each having a complement of tables, lockers, gas, compressed air, water, waste, hoods, hydrogen sulphide connections, water-baths, drying ovens, electric terminals, balances, and other accessories.

In the courses outlined below especial attention is given to the matter of making the preparation for teaching and research, chemical technology, medicine, mineralogy, metallurgy, and chemical engineering as complete and practical as possible. The arrangement is such that progress in chemical training for any of these lines of work shall be logical and continuous from the very first. At the same time the value of chemistry as a purely educational factor is kept in view, and no effort is spared to make this study conform to the requirements of such. For training in habits of exactitude, for gaining a helpful insight into the methods of scientific thought and procedure, and for practice in the interpretation of evidence, chemistry holds a high position among the studies offered in college or university.

In addition to the courses outlined, the department can at present offer not to exceed six semester hours of advanced work in any one year. The subjects given will be chosen to accommodate the greatest number applying, and may be any of the following: Organic Preparations, Inorganic Preparations, Analysis, General Physical Chemistry, Electro-Chemistry, The Phase Rule, Chemical Statics and Dynamics, or Thermodynamics.

1. *General Chemistry*.—This course or a satisfactory equivalent is prerequisite for any other work in this department. Its purpose is to give a general introduction to the science, emphasizing, incidentally, many practical applications of chemistry in the affairs of every-day life, manufactures, metallurgy, etc. Three lectures are given each week for the year in which the subject material of the courses is illustrated by elaborate lecture experiments, while numerous specimens, models, charts, lantern slides, etc., serve to give the subject a living interest by bringing the student as nearly as possible into contact with its practical aspects. Three hours of laboratory work per week for the year, with the ample facilities for laboratory work that this department now offers, affords abundant opportunity for first-hand contact with the experimental truths of chemistry and for training in laboratory methods. The general laboratory is a well lighted room containing one hundred individual lockers, each supplied with gas, water, and a very complete outfit of chemicals and apparatus. The room is equipped with a bank of hoods from which the air is continuously exhausted by an electrically driven Sturtevant fan. In the hoods are to be found steam and water baths, gas, water,

waste, hydrogen sulphide cocks, etc., while elsewhere about the room are electric terminals for power, aspirators, rapid filtering apparatus, blast lamps, drying ovens, scales, and in general whatever other appliances may be necessary for the exemplification of laboratory practice of the highest order. Six balances for the use of students in this course are in a room immediately adjacent. Lectures on Monday, Tuesday, and Wednesday at 11; laboratory periods 1 to 4 Thursday or Friday. *Four hours, both semesters.*

2. *Analytical Chemistry*.—A rapid survey of systematic qualitative analysis is accompanied by a sufficient study of the law of mass action and the theory of electrolytic dissociation to enable the student to explain the various operations of analytical chemistry from a scientific standpoint. Ten mixtures of moderate complexity are to be analyzed correctly. Beginning December 1 the gravimetric quantitative determination of the following ions is commenced and continued until completed satisfactorily: The chlorine, iron, and sulphate ions in chemically pure compounds prepared by the student; silicate, iron and aluminum, calcium, magnesium, and carbonate ions in dolomite; the phosphate ion in apatite; lead in an impure galena; and silicate, iron and aluminum, calcium and magnesium in an insoluble silicate. Following the above will be the preparation of standard normal alkali, acid and bichromate solutions, together with an assigned exercise involving the use of each. One lecture per week for the year at 11 Thursday. Laboratory open to students in this course 1 to 5 Monday, Tuesday, and Wednesday. *Four hours, both semesters.*

3. *Organic Chemistry*.—An introduction to the chemistry of the hydrocarbons and their derivatives. The subject matter of this course is a necessity to the advanced student of chemistry, and to students of medicine, pharmacy, biology, and kindred subjects. The work is based largely upon "Organic Chemistry"—Perkin and Kipping. Two lectures a week for the year. Laboratory requirements are the satisfactory completion of twenty-five preparations to be assigned by the instructor. *Three hours, both semesters.*

4. *Advanced Inorganic Chemistry*.—A lecture course in which the law of mass action, the phase rule, the theory of electrolytic dissolution, Avogadro's hypothesis, and similar helpful conceptions are considered together with their practical applications. The work is based upon "The Principles of Inorganic Chemistry"—Ostwald and Walker's Physical Chemistry. Three lectures per week through the year. *Three hours, both semesters.*

5. *Advanced Analytical Chemistry*.—A course designed for those who wish to perfect themselves in general analytical methods or to secure practice in the Analytical Chemistry of special lines of work. Enrollment may be made for from three to twelve semester hours.

#### LABORATORY FEES AND PURCHASE OF MATERIAL

The efficiency of a laboratory course depends to a very great extent upon having at hand a sufficient supply of the proper materials for the work outlined by the instructor. These materials correspond in a way to the pencils, paper, text-books, etc., required in other courses to facilitate the work of instruction.

The selection of materials is itself a task demanding considerable experience if the best are to be secured, and since, moreover, the remoteness of the University from adequate sources of such supplies makes their purchase in a small way a matter entirely out of the question, it becomes a necessity for the department to carry in addition to its own assortment of chemicals and apparatus for general and lecture purposes an amount sufficient for the use of its students in all of the courses offered.

In conducting this phase of departmental affairs, the aim is to make it strictly a business proposition, the carrying out of which demands a rigid adherence to the following details:

A deposit of ten dollars for each laboratory course in which enrollment is made must be placed with the University Steward to stand as a security for the *unreturnable* portions of the outfits loaned at the beginning of laboratory work, and as a fund from which may be deducted a proportionate share of the cost of material supplied to the course in a general way. This deposit, as a rule, does not nearly cover the entire cost of the outfits, and the transaction is made with the understanding that where the breakage and other losses are excessive the student is to make good whatever the amount may be over and above the deposit. The department reserves the right in all cases to withhold credit for work done until laboratory accounts are fully settled.

Loans of additional material are made from time to time as may be necessary, the charges for which are punched from coupons issued in sums of one dollar by the University Steward. Such additional material need not necessarily be obtained from the store room, however, but from wherever it may be desired so long as it is available when needed, and is adapted in all respects to the course requirements both as to quality and quantity; but in order to avoid the accumulation of heterogeneous material in the store room, the depart-

ment will not receive any article for credit at the end of a course that was not originally dispensed from the regular stock. Since a large part of the apparatus carried in the storeroom is imported free of duty for use in the University laboratories only, the department does not relinquish title to the material taken out, but considers the transaction as a loan.

All returnable material, as well as unused portions of coupons, are redeemed at the close of the laboratory work in any course at their charged value, and cash balances are collected or returned as the case may be.

The approximate cost of the laboratory courses outlined above is as follows: General Chemistry, ten dollars; Analytical Chemistry, fifteen to twenty dollars; Organic Chemistry, fifteen dollars.

It is especially to be noted that the deposit of ten dollars is to be made preliminary to enrollment in laboratory courses. There should therefore be due provision upon the part of all students for the prompt payment of this amount in order that no hardship may be incurred by the delay that otherwise must follow.

#### CIVIL ENGINEERING

Professor McAlister  
Mr. Adams  
Mr. Moulton (1904-5)

The prerequisites noted in connection with the following courses will be found described under the appropriate departments.

##### A. DRAWING AND DESCRIPTIVE GEOMETRY

1. *Mechanical Drawing*.—Use and care of instruments; plain lettering; elementary projections of points, lines, surfaces and solids, isometric and oblique projections; simple working drawings; shading; section lining; blue prints. Six hours in drafting room. Freshman year. Prerequisite for engineering students.

*Two hours, both semesters.*

2. *Descriptive Geometry*.—Orthographic projections of points, lines, and solids; traces of lines, planes, and single-curved surfaces; cylinder, cone and double-curved surfaces of revolution; intersection of solids by planes and development of surfaces; intersection of solids by solids; applications. Open to students who have had course 1. Prerequisite for all Engineering students. Drafting room and lectures, 6 hours per week.

*Two hours, first semester.*

**B. SURVEYING**

1. *Elementary Surveying*.—Adjustment and use of instruments; land survey computations; reduction and platting of field notes; simple earthwork computations; mapping; differential and profile leveling; compass surveys; azimuth traverses; stadia measurements; simple triangulation, etc. Recitations, 1 hour per week; field and office work, 6 hours per week. Open to students who have had Freshman Mathematics and course A 1. Required of all Engineering students.  
*Three hours, both semesters.*

2. *Topographic Surveying*.—Horizontal and vertical location of points; representation of relief by contours; determination of latitude, time, azimuth and longitude; triangulation; precise leveling; reduction formulas for surveys and map projections; adjustment of errors; details of field work; map drawing. Lectures and recitations, one hour; field work, six hours per week. Open to students who have had course 1 and Calculus. Required of students in Civil and Mining Engineering.  
*Three hours, both semesters.*

**C. STRUCTURAL ENGINEERING**

1. *Graphic Statics*.—Graphic methods of solving problems in the equilibrium of rigid bodies; direct applications of the general principles are made to the determination of stresses in framed structures subject to fixed loads of shear and bending moment in beams; and of the centroid and moment of inertia of plane areas. Six hours per week in drafting room. Open to students who have had A 1 and A 2. Prerequisite for all Engineering students.  
*Two hours, both semesters.*

2. *Strength of Materials*.—(a) Elements of the mathematical theory of elasticity, with applications to beams, columns, shafts, etc. Lectures and recitations.  
*Two hours, both semesters.*

(b) Testing Laboratory. Each student is required to make a series of tests of timber, wrought iron, cast iron and steel, in tension compression, cross bending and shear. Saturday, 6 hours per week. Open to students who have had Calculus, Analytical Mechanics and Shopwork. Required of all Engineering students.  
*Four hours, second semester.*

3. *Stresses in Framed Structures*.—Determination by graphic and analytical methods of stresses in trusses and other framed structures, including structural details. Drafting and computations, 9 hours per week. Open to students who have had Calculus and course 1, and who have had or are taking Analytical Mechanics. Required of Civil Engineering students.  
*Three hours, second semester.*

4. *Masonry*.—Materials, foundations, piers and abutments, retaining walls. Lectures, computations and drafting, and laboratory work in testing stone, brick, cement, etc.; in all, 9 hours per week. Open to students who have had Calculus, Analytical Mechanics, Elementary Chemistry, and C 2, A 1, and A 2. Required of Civil Engineering students.  
*Three hours, first semester.*

5. *Structural Design*.—Designs, drawings, bills of materials, and estimates of cost of girders and trusses of wood and steel. Drafting and computations, 9 hours per week. Open to students who have had courses 2 and 3 and Shopwork. Required of Civil Engineering students.  
*Three hours, first semester.*

6. *Advanced Bridge Design*.—Courses 3 and 5 are extended to include the more complex forms of trusses, cantilever and swing bridges for railways. Drafting and computations, lectures and assigned readings; in all, 15 hours per week. Open to students who have had courses 3 and 5.  
*Five hours, second semester.*

7. *Masonry Arches*.—Computation of stresses, designs and drawings for arches of stone, brick or concrete. Drafting room, 6 hours per week. Open to students who have had courses 2 and 4.  
*Two hours, second semester.*

**D. HYDRAULIC AND MUNICIPAL ENGINEERING**

1. *Hydraulics*.—Hydrostatic pressure in pipes, tanks, reservoirs, etc.; fluid motion; dynamic pressure, theoretical and empirical formulas for flow of water through orifices, over weirs, through tubes, in pipes, conduits, canals and rivers; measurements of water power, with brief reference to common water wheels and turbines. Open to students who have had Calculus, Analytical Mechanics, and B 1. Required of Civil Engineering students.  
*Four hours, first semester.*

2. *Water Supply System*.—Amount of water required; available sources of supply; storage reservoirs and dams; purification works; supply pipes and conduits; city mains and branches; pumping machinery, operation and maintenance. Lectures and recitations, 2 hours per week; drafting and computations, 9 hours per week. Open to students who have had course 1.  
*Five hours, second semester.*

3. *Elements of Water Supply Design*.—Course 2 abbreviated for students who desire a general knowledge of the subject, but do not care to make a specialty of it. Lectures, drafting and computation; in all 6 hours per week. Open to students who have had course 1.  
*Two hours, second semester.*

4. *Sewerage and Drainage Systems.*—Detailed designs of systems; disposal works and drains; separate and combined systems; rain fall and run-off; estimating increase of population, sewerage per capita; ground water; grades and self-cleansing velocities; use of formulas and diagrams; outfalls; disposal works. Lectures and recitations, 2 hours per week; computation and drafting, 9 hours per week. Open to students who have had course 1.

*Five hours, second semester.*

5. *Elements of Sewer Design.*—Course 4 abbreviated. Lectures, drafting and computations; in all, six hours per week. Open to students who have had course 1. *Two hours, second semester.*

6. *Irrigation Engineering.*—Hydrography, including stream measurements; rainfall and run-off; evaporation, absorption, and seepage; duty of water; sub-surface water sources, artesian wells. Canals and canal works; surveys, alignment, slope and cross sections of canals, headworks and diversion weirs; distributary canals or ditches. Storage reservoirs, location, capacity, and construction; earth, loose rock and masonry dams; waste ways and outlet sluices. Pumping water for irrigation. Recitations, 3 hours; field work and drafting, 6 hours per week. Open to students who have had course 1, B2, C2, and C4. *Five hours, second semester.*

#### E. RAILWAY AND HIGHWAY ENGINEERING

1. *Railroad Surveying.*—Reconnaissance, preliminary survey, location survey; simple curves; compound curves; transition curves; vertical curves; earthwork; switches and crossings. Recitations, 2 hours; field and office work, 9 hours per week. Open to students who have had course B 1. Required of Civil Engineering students.

*Five hours, first semester.*

2. *Economic Railway Location.*—A study of the sources of income; operating expenses; distance, grades and curvature as affecting first cost; maintenance and operation; relative power of locomotives; rolling stock; train resistance, etc. Assigned readings, reports, and recitations from Wellington's *Economic Theory of Railway Location*. Open to Seniors or Graduates who have had course 1. (Not given in 1905-6). *Two hours, second semester.*

3. *Roads and Pavements.*—Survey and location of roads; grades; drainage, foundations; road coverings; crushed rock and gravel. Stone, wood, asphalt, and brick pavements; laying out city streets; footwalks, curbs, gutters, maintenance, repair, cleaning, and watering. Recitations, two hours per week. Open to students who have had courses B 1, C 4, and D 1. *Two hours, second semester.*

#### ECONOMICS AND SOCIOLOGY

Professor Young

Mr. Whittlesey (1904-5)

The function of this department is to enlighten the student on the wider and higher responsibilities of citizenship, to furnish instruction essential to usefulness in the public service, in journalism, law, and the ministry. The system of grouping the courses given below is designed to advance the student naturally and yet make his work complete and serviceable wherever it may be necessary to stop.

Group I.—The General Introductory Course gives the student the point of view of modern thought in economic, political, and social sciences, and outlines the general course of progress in each line of social advancement through the lower stages of civilization. Prerequisite, Freshman standing.

Group II.—Comprises the information courses of this department. These courses are especially designed to enrich and make clear the concepts used in all later thinking in the social sciences. Prerequisite, Freshman standing.

Any course of this group may be taken along with the introductory course. It may be taken after the course of Group II of the corresponding science has been taken, but more naturally precedes.

Group III.—Comprises the courses fundamental for all extended study in the respective sciences. If only one course in any science is taken, the course of this group should be chosen. Prerequisite, Sophomore standing.

Group IV.—The principles of the sciences as they are developed in Group II are in the courses of this group viewed in perspective, and the broader relations discerned through the study of the historical development of thought in each science. These courses follow those of Group II of the respective sciences.

Group V.—Enables the student to investigate systematically the phenomena of modern society, with the view of developing policies of improvement and reform.

Group VI.—Society is confronted with great problems that challenge a reconstruction of the social organization and a revision of the fundamental conclusions in all the social sciences. These problems are appropriately made the subject of university investigation.

Group VII.—For securing a refinement of methods of investigation and statement of relations in quantitative forms, the methods and principles in the theory of statistics are taught.

**A. ECONOMICS**

## I.

1. *General Introductory Course.*—The theory of evolution in its applications to society; the process in connection with the new elements in the human sphere; the genesis of social life, mind and institutions constitutes the scope of this course. Lectures and readings. *One hour, second semester.*

## II.

2. *The Economic History of England.*—The evolution of the forms of industrial organization from the village community to modern capitalism is traced. The inter-relations of economic conditions and social life in general are emphasized.

Text books, lectures, and collateral reading.

*Two hours, second semester.*

## III.

3. *Economics.*—Lectures, readings, and reports. Required of Sophomores in A. B. courses and of Seniors in Engineering courses, except Civil and Municipal.

*Three hours, both semesters.*

4. *Theories of Vaule and Distribution.*

Text book and collateral reading. *Four hours, both semesters.*

## IV.

5. *History of Economic Thought.*—This course is taken up mainly with an analysis and criticism of economic classics. For graduates and undergraduates.

*Four hours, first semester.*

6. *Philosophy and Economics.*—The relations between philosophical and economic speculation, with their casual interaction, are traced. Bonar's Philosophy and Political Economy will be used as a guide. For graduates and advanced undergraduates.

*Four hours, second semester.*

## V.

7. *Finance.*—Public expenditure, financial administration, taxation and public debts. Text book, Adams' Public Finance.

*Three hours, both semesters.*

8. *Money, Credit, and Banking.*—Applications of the principles of economics to modern monetary systems with the view of developing policies of improvement. This course alternates with Course No. 1.

*Two hours, both semesters.*

9. *Railway Transportation.*—A study of the historical, economic and legal phases of the railway as a factor in modern life. For graduates and advanced undergraduates.

*Four hours, first semester.*

10. *Economic Geography.*—A study of the character of commercial relations, localization of industries, and effects of physical environments on economic life of the United States and other American nations, the chief European nations and such of the Eastern nations as are of especial interest to American commerce.

This course is especially for advanced undergraduates and graduates who wish to make a study of commerce. (See School of Commerce.)

## VI

11. *Seminar in Economic Problems.*—Questions connected with recent developments in taxation, in trust and industrial and commercial combinations, and in national expansion. Current economic literature and reports of commissions will furnish main materials for this course. Also state problems connected with irrigation, forestry, transportation, and utilization of water power.

*Four hours, both semesters.*

## VII

12. *Statistics.*—A course in the theory and methods of statistics, with practical work in investigation and tabulation. For graduates and advanced undergraduates.

*Two hours, both semesters.*

**B. POLITICS**

## I

General Introductory Course. See Economics.

## II

13. *Political Institutions of the United States.*—These are studied with special reference to their practical working. A study of constitutional law. Bryce, American Commonwealth.

*Three hours, first semester.*

14. *Political Institutions of Europe.*—Comparative study of the governments of Europe, especially those of England, France, Germany, and Switzerland.

*Three hours, second semester.*

15. *Jurisprudence.*—(a) A general course in Elementary Jurisprudence. (b) A study of the historical development of the

Common Law. (a) and (b) alternate; the one will be given which is most in demand. *Two hours, either semester.*

## III

16. *Political Science.*—The Nation and the State; idea, origin, forms and ends of the state. Text-book: Burgess' Political Science. *Three hours, both semesters.*

17. *International Law.* *One hour, both semesters.*

## IV

18. *History of Political Ideas.*—A critical study of the leading writers on politics. For graduates and advanced undergraduates. *Three hours, second semester.*

## V

19. *Municipal Government* in Europe and the United States with a view to the determination of normal relations to the State, and solution of problems of organization, administration, and of policies. *Two hours, both semesters.*

## C. SOCIOLOGY

## I

General Introductory Course. See Economics.

## II

20. *Elements of Society.*—Society as an organization analyzed for a determination of its characteristics. Text-book and collateral reading. *Two hours, both semesters.*

## III

21. *Principles of Sociology and Theory of Social Forces.* As conceived of by leading modern sociologists. For graduates and advanced undergraduates. *Three hours, first semester.*

22. *Democracy.*—Its characteristics, tendencies, and problems. *Three hours, second semester.*

23. *The Commonwealth of Oregon.*—The development of its political, economic, and social institutions, and the consideration of its problems of legislation.

24. *Theory and Practice of Debating* of economic, political and sociological questions. Prerequisites, Freshman English and a Course in Economics and Politics. *Two hours, both semesters.*

## EQUIPMENT

The equipment for the study of Economics and Sociology includes the standard authorities on these subjects, comprising some five hundred volumes. In Economic and Industrial History the equipment in History is available, and the library of the Oregon Historical Society, of several hundred volumes, affords the best possible material for original work in Economics and Industrial History and Theory.

The department also has files of all the leading American journals of Economics and Sociology, and a practically complete file of Government publications.

## ELECTRICAL AND MECHANICAL ENGINEERING

Assistant Professor Dearborn  
Mr. Converse

The following courses in Electrical and Mechanical Engineering are offered. In connection with these, the student takes courses as follows:

Advanced Algebra, Trigonometry, Analytical Geometry, Calculus, and Analytical Mechanics in Mathematics; Course I in Chemistry; Advanced Physics and Electrical Testing in Physics; Mechanical Drawing, Descriptive Geometry, Graphic Statics, Surveying, Machine Design, Hydraulics, and Strength of Materials in Civil Engineering. The student is at liberty to elect courses in other departments for which he may be prepared and according to the time at his disposal.

1. *Machine Design.*—This course includes the standard conventions used in mechanical draughting; tracing and blue-printing; machine constructions; strength of materials; working drawings and engine details. (6 hours in draughting room, both semesters.) Course open to students who have completed Mechanical Drawing. Required in Electrical and Mechanical Engineering.

*Two hours, both semesters.*

2. *Steam Engines and Boilers.*—The theory, construction, and operation of the best types of engines and boilers. A study of valve gears, steam distribution, regulation of engines, and turbines. Fuel determination; care of boilers. Discussion of condensers, mechanical stokers and chimneys. Course open to students who have completed Calculus and Advanced Physics. Required in Electrical and Mechanical Engineering.

*Three hours, both semesters.*



2a. *Mechanical Laboratory*.—Experiments chiefly in Steam Engineering. Engine, boiler, pump tests. Indicators; dynamometers; fuel colorimetry; valve setting; flue gas analysis. (Three hours in laboratory.) Course open to students who are taking Course 2. Required in Electrical and Mechanical Engineering.

*One hour, second semester.*

3. *Prime Movers*.—A course in the practical adaptations of steam engines, boilers, pumps, gas and gasoline engines, steam turbines, etc., to general Engineering work. Open to students who have completed Calculus.

*Three hours, first semester.*

4. *Thermodynamics*.—The mechanical theory of heat and its application to steam, gas, and hot air engines; refrigerating machines and air compressors. Course open to students who have completed Course 2. Required in Electrical and Mechanical Engineering.

*Three hours, both semesters.*

5. *Shop Practice*.—

a. *WOOD WORKING*.—Use and care of tools; turning; pattern making. (3 hours a week in the shops.)

*One hour, both semesters.*

b. *IRON WORKING*.—Forging; welding; tool dressing; tempering, and annealing. (3 hours a week in the shops.)

*One hour, both semesters.*

c. *MACHINE SHOP*.—Bench work, chipping and filing; lathe, drill press, planer and shaper. (3 hours a week in the shops.)

*One hour, both semesters.*

d. *SPECIALIZED MACHINE SHOP PRACTICE*.—Construction and erection of apparatus and machines. (3 hours a week in the shops.) Course open to students who have completed b and c.

*One hour, both semesters,*

Courses a, b, c are open to all students. Required in Electrical and Mechanical Engineering.

6. *Direct Current Machinery*.—Theory and design of series, shunt and compound direct current dynamos and motors. Discussion of construction and operation of direct current machinery and its application to electric lighting and power. Course open to students who have completed Advanced Physics and Calculus. Required in Electrical and Mechanical Engineering.

*Three hours, both semesters.*

6a. *Direct Current Laboratory*.—A laboratory course for the experimental study of direct current dynamos and motors; their

operation, characteristic curves and efficiencies. (3 hours in laboratory.) Course open to students who are taking Course 6. Required in Electrical and Mechanical Engineering.

*One hour, second semester.*

7. *Alternating Current Machinery*.—The theory of generation of single phase and poly phase alternating currents. Graphic problems; measurement of power; theory of transformers, rotary converters, synchronous and induction motors. Course open to students who have completed Course 6. Required in Electrical and Mechanical Engineering.

*Four hours, both semesters.*

7a. *Alternating Current Laboratory*.—Laboratory tests of single and poly phase generators; induction and synchronous motors; transformers; frequency changers, etc. (3 hours in laboratory.) Course open to students who are taking Course 7. Required in Electrical and Mechanical Engineering.

*One hour, second semester.*

8. *Industrial Electricity*.—A general course in Direct and Alternating Currents, with a minimum of theory, designed with especial reference to the application of electricity to industrial operations. Open to students who have completed Calculus.

*Three hours, second semester.*

9. *Street Railways*.—A course in street railway design, construction and operation. a. Direct current practice. b. Alternating current development. Course open to students who have completed Course 6.

*Three hours, first semester.*

#### SHOP AND LABORATORY FEES

Course 2a, 6a, 7a, two dollars a semester. Course 5a, two dollars a semester. Courses 5b, 5c, 5d, three dollars a semester.

#### ENGLISH

Professor Carson

Professor Glen

Professor Howe

Miss Roe (1904-5)

Miss Slater

Miss Cleaver (1904-5)

Six objects are contemplated in the following courses:

1. An ability to appreciate, enjoy, and criticise justly the best in English Literature.

2. A scientific knowledge of the origin and development of English Literature in general, and of special periods in particular.

3. Proficiency in English composition, including skill in organization of material.

4. A scientific knowledge of the laws of written and spoken discourse.

5. An ability to apply the methods of philological science to the English language.

6. The ability to appear before an audience with composure and speak so as to be heard, to be understood, and to be believed.

All students, regular and special, who take up the work in these courses must present twenty hours of entrance English. The entrance English requirements will conform to the State High School Course. Further, every student at the beginning of his freshman year shall elect either to take an examination testing facility and accuracy in the use of English,—or to take a course of at least two semester hours [1a or 1b] in English for which college credit will be given. (If the student fails in the examination, a freshman course of, at least, two semester hours will be required. A student who attains grade A in the entrance examination is eligible to enter Courses 2 and 3 or 3a. A student passing the entrance examination with grades B or C must take a freshman course to be eligible to do sophomore work.)

Under Rhetoric, Criticism, and English Composition, 1a and 1b are required of all Freshmen in all courses who do not pass an entrance examination, excepting such Freshmen as may desire to elect either 1 or 1c. Course 2 is open to those who have attained grade A in entrance examination. Course 3 is open to those who have taken or are taking Course 2.

All students entering advanced college classes must be accredited with English done elsewhere or comply with entrance requirements here, through examination or work in class.

#### RHETORIC AND AMERICAN LITERATURE

Professor Carson  
Miss Roe (1904-5)  
Miss Slater

#### RHETORIC, CRITICISM, AND ENGLISH COMPOSITION

The courses in English Composition comprise papers under description, narration, exposition, and criticism, followed by forensics, analysis of masterpieces of argumentative composition, short stories

and orations. In the Junior and Senior courses in orations, lectures are given concerning the differences between spoken and written discourse, the characteristics of the oration, the nature and purposes of persuasion, the laws of good prose.

1. *English Prose Style*.—A three hour course in English composition open to all Freshmen. A study of the elements of effective prose with analysis of selected masterpieces and constant training in writing. Text-books: Newcomer's Elements of Rhetoric and Carson's English Composition. *Three hours, both semesters.*

1a. *English Composition*.—Elements and principles of effective composition in English prose. Three methods are used: (1) the analysis of several masterpieces of literature; (2) constant practice in exercises in class and outside under grammatical rules and requirements; (3) the preparation of six short themes. Text-books: Hart's Essentials of Prose Composition and Carson's English Composition. Open to all Freshmen in all courses and prescribed for those not passing in entrance English who do not elect 1 or 1c.

*One hour, both semesters.*

1b. *English Composition*.—The course aims: (a) to secure knowledge of the fundamental principles of composition; (b) to secure skill in the construction of sentences and paragraphs and in outlining. These subjects are reached through text-books, lectures, analysis and construction work. Six themes are required. Text-book: Scott and Denney's Paragraph Writing. Open to Freshmen with special preparation. *One hour, both semesters.*

1c. *English Composition*.—A two-hour course open to all Freshmen; intended especially for Freshmen in engineering courses who desire more than 1a or 1b. The first half of the year is given to the study of exposition; the last half to argument. The work is carried on through text-books, lectures, exercises, essays, and analysis of selections from master-writers on science. Six themes are required. Text-books: Newcomer's Elements of Rhetoric and Tyndall's Fragments of Science. *Two hours, both semesters.*

2. *Rhetoric and Criticism*.—A three-hour course open to students who have passed in a Freshman course or who have attained grade A in the entrance examination. A good deal of written work is done to develop accuracy, originality, and creative power. The first half of the year is given to the study of style, and exercises are written giving special attention to diction, figures, and structure of sentences and paragraphs. The second half of the year is given to in-

vention. Exercises are written illustrating the essentials of description, narration, exposition, and the different forms of argument. Text-books: Genung's *The Working Principles of Rhetoric* and Genung's *Rhetorical Analysis*. Professor Carson.

*Three hours, both semesters.*

3. *Criticism, Exposition, and Argument*.—English Composition. A one-hour course open to those who have taken or are taking Course 2. This course is closely connected with Course 2 and must be taken with it unless by the consent of the instructor. Constant practice in writing consists of: (1) exercises based on the text-book, written in the class room and outside; and (2) the preparation of six themes accompanied by outlines. Text-book: Genung's *The Working Principles of Rhetoric*. Professor Carson and Miss Slater.

*One hour, both semesters.*

3a. *English Composition*.—A two-hour course open to students not taking Course 2 who have passed a Freshman course or the entrance examination with grade A. This course will be adapted to the needs of class. Miss Slater.

*Two hours, both semesters.*

4. *Argument and Persuasion*.—Open to all who have passed Courses 2 and 3. This course includes: (1) A study of the principles of argumentation and persuasion, as set forth in the master arguments and orations; (2) the drawing of two briefs from masterpieces of argumentative composition and the analysis of two orations in class; (3) the construction of three arguments, one description or narration, and one paper of oratorical nature, each preceded by a brief; (4) lectures and conferences. Text-book: Baker's *Specimen's of Argumentation*. Professor Carson.

*Two hours, both semesters.*

4a hf. *Argumentative Composition*.—This two-hour course emphasizes analysis, evidence and the process of debate and consists of: (1) the drawing of two briefs from masterpieces of argumentative composition; (2) the study of principles and methods under analysis of questions; (3) the study of the nature and kinds of evidence; (4) the production of three forensics, each preceded by a brief. Text-books: Baker's *Principles of Argumentation*; Baker's *Specimens of Argumentation*. Open in the first semester to Juniors and Seniors only except with consent of instructor. Prerequisite, Courses 2 and 3, 4a to be followed by a supplementary course 4b. Professor Carson.

*Three hours, both semesters.*

4b hf. *Persuasion*.—This two-hour course is supplementary to 4a and includes: (1) a study of the principles of argumentation

and persuasion, as set forth in master orations; (2) the analysis of two orations in class; (3) the construction of two orations or papers of oratorical nature, each preceded by a brief; (4) lectures and conferences. Text-book: Same as in Course 4a. Open to all who have passed 4a. Professor Carson.

*Two hours, second semester.*

4c hf. *Advanced Composition, Exposition*.—A study of the principles of exposition as found in Coleridge, Matthew Arnold, Huxley, Darwin, Bagehot; construction of practical exercises and three essays. Open to those who have passed Courses 2 and 3. Miss Slater.

*Three hours, either first or second semester.*

4d. *Advanced Composition*.—The Short Story. This course is open to Juniors and Seniors, and Sophomores with the consent of the instructor. It includes: (1) a study of narration, description, also character, plot, and dialogue, as exhibited in the short story; (2) analysis of classic prose in three forms; (3) construction of six papers illustrating these forms. Professor Carson.

*Two hours, both semesters.*

5. *Forensics and Orations*.—Open only to Seniors who have passed Course 4 or Course 4a, first semester, and 4b, second semester, with credit. Course 5 consists of: (1) argumentative composition; (2) the analysis of master orations; (3) lectures, conferences, and criticisms of briefs, forensics, and orations; (4) the writing of two forensics and two orations, each preceded by a brief. Professor Carson.

*Two hours, both semesters.*

6. *Journalism*.—Development and functions of the American newspaper. Study of the methods of Journalism as set forth in a few great papers of our day and country. Practice in various forms of newspaper writing. Text-book: Shuman's *Practical Journalism*. Prerequisite, at least Junior standing. Professor Carson.

*Two hours, both semesters.*

7. *English Literary Criticism*.—Lectures on the principles of criticism; a survey of literary criticism in England since the sixteenth century; special attention given to the nineteenth century, including Wordsworth, Coleridge, Hazlitt, Lamb, Arnold, Pater, Lowell. Assigned readings and reports. Professor Carson.

*Two hours, both semesters.*

#### AMERICAN LITERATURE

8. *Outlines of American Literature*.—This course gives an outline of American literary history and the reading and discussion of important works in prose and verse. Authors read: Franklin,

Cooper, Irving, Poe, Bryant, Longfellow, Emerson, Hawthorne, Holmes, Lowell, Whittier, Whitman, Lanier. First semester, to about 1850. Second semester, 1850 to present time. Open to Juniors, Seniors, and Sophomores. Miss Slater. *Two hours, both semesters.*

8a. *American Literature*.—A course supplementing to 8; open to Juniors, and Seniors. The environment, works, and influence of a few authors are studied through lectures, reports, and reading, also the characteristic writers in the most important sections of our country. Professor Carson. *Two hours, both semesters.*

8b. *American Literary Criticism*.—This course gives an outline of American literary criticism with a brief consideration of the theories and methods of a few American critics. One hour. Not offered in 1905-1906. Professor Carson.

#### FOR GRADUATES AND ADVANCED UNDERGRADUATES

9. *Seminar in the Critical Study and Construction of the Short Story*.—The structure of the short story will be analyzed in comparison with that of the novel and drama. Themes, motives, art in development of character, plot, and environment will be discussed. This course will require the construction of a certain number of short stories, with practice in working out details. Open to graduates, Seniors and special students in English who are properly fitted. Professor Carson. *Three hours, both semesters.*

10. *Seminar in Rhetorical Methods*.—Two-hour sessions each week. This course is intended for graduates who intend to teach English or for teachers of English. Prerequisites are Courses 1, 2 and 3, or equivalents. The aim of this course is two-fold: To discuss important questions in the theory of rhetoric; to outline modern methods of teaching rhetoric and English composition in schools and colleges. Primarily for graduates. Not given in 1905-1906.

11. *Modern English Grammar*.—A course for teachers of English. Open to students who have taken Courses 2 and 3. Miss Slater. *Two hours, both semesters.*

12. *Seminar in the Theory, History, and Practice of Criticism*.—This course will consider the critical theories of Plato, Aristotle, Horace, Boileau, Lessing, and also English masterpieces of literary and applied criticism from Sidney to Arnold. Open to graduates. Not given in 1905-06.

13. *Outline History* of the beginning of English Prose. A brief consideration of Caxton, Malory, Tyndale, and history of the

English version of the Bible to 1611, with a discussion of the influence of the Bible on English prose. Professor Carson.

*One hour, both semesters.*

14. *Daily Themes*.—Open to a limited number who have passed Course 4 or equivalent with credit. Not given in 1905-1906. Professor Carson.

*One hour, both semesters.*

15. *Verse Composition*.—After a few introductory lectures on the principles of English versification, the student will begin fortnightly practice in composition, with regular appointments for consultation and criticism. The purpose of this course is partly to familiarize the student with the chief varieties of English verse and stanza (heroic verse, the sonnet, etc.), and partly to give him added command of language. Open to a limited number of students who have passed Courses 2 and 3 with credit. Professor Carson.

*One hour, both semesters.*

#### EQUIPMENT

This department is very well equipped in English dictionaries and special works for reference in rhetoric, English composition and criticism. It is securing a good working library in American literature.

#### ENGLISH LANGUAGE AND EARLY ENGLISH LITERATURE

Professor Glen

1. *History of Old and Middle English Literature*.—A course in the beginning of literature in English. The first semester will cover the field of Anglo-Saxon literary development, emphasizing the characteristics of the heathen, transitional, and Christian epochs in poetry and the causes and purposes of the later period of prose.

The second semester will continue the work from the Norman Conquest to Spenser. Special mention will be made of: Results of the Norman Conquest on English literature, religious poetry, folk poetry, legend, tale, tact, early stages of drama, Chaucer and his imitators, Wyatt, Surrey, and Skelton. The work will consist of lectures, recitations and reports. The course is required before entrance upon any subsequent literary courses in this department. Regular Freshman course. *Two hours, both semesters.*

2. *Chaucer*.—Biography. Textual and critical studies in the Canterbury Tales and in minor poems. Topics assigned for individual study and reports: Influences of French and Italian predecessors,

sources of poems, content, and relationship. Given as Sophomore work. May be taken by any who have had prerequisite Course 1.

*Two hours, one semester.*

3. *Anglo-Saxon*.—Grammar and translation of select passages in prose and poetry. The relationship between Anglo-Saxon and cognate continental languages will be carefully studied and traced. A knowledge of German will be extremely helpful.

*Three hours, both semesters.*

4. *Anglo-Saxon. Beowulf*.—A textual and critical study of the great epoch. Theories of composition and authorship. Historical and literary value. Christian and heathen elements.

*Three hours, both semesters.*

5. *Anglo-Saxon*.—Reading from Cynewulf, signed poems and attributed poems. Alfred, Saxon Chronicles, Aufric, alliterative and prose homilies.

*Two hours, both semesters.*

6. *History of the English Language*.—A lecture course in the growth and development of the language, including discussions of the different language families, characteristics and relationship. Consonant shifts. Teutonic group characteristics. Native and foreign linguistic elements.

*Two hours, first semester.*

7. *English Phonology*.—Principles of Phonetics. Development of English vowel and consonant systems.

*Two hours, second semester.*

8. *History of English Epic and Lyric Poetry*.—This course is intended to serve as an introduction to the field of epic and lyric poetry. With Course 9 it aims to cover the three great lines of development in English verse.

*Two hours, first semester.*

9. *History of English Drama*.—This course will be introduced by a survey of the greater epochs of the drama in literary history, after which it will proceed to the discussion of the beginnings and subsequent development of the drama in English.

*Two hours, second semester.*

10. *Metrical Romance of Early English Literature*.—Form and contents. Early materials and significance. Origins: A graduate course.

*Two hours, one semester.*

#### PUBLIC SPEAKING

Professor Glen

1. *Regular Freshman Course*.—Fundamentals, articulation,

emphasis, inflection, and elementary work in vocalization and gesture.

*One hour, both semesters.*

2. *Sophomore Orations*.—Open to all who have taken 1. A more detailed study of interpretation and expression. Advanced work in vocalization and gesture. Public work.

*One hour, both semesters.*

3. *Formal Oral Debate*.—A study of the forms of debate. Private and public debates. Continuation of study of expression.

*One hour, first semester.*

3a.—Introduction to the study of oratorical forms and delivery, characteristics of oratorical style. Divisions of oratorical style, methods of cultivation of best style. What to avoid in oratory. Continuation of work in vocalization. Public Junior orations.

*One hour, second semester.*

4. *Famous Orations and Orators*.—Private rehearsals. Class drill. Competition for Failing and Beekman prizes. First semester, American orators. Second semester, British orators.

*One hour, both semesters.*

#### EQUIPMENT

The library facilities for study of this department have been sufficient thus far for the general needs of the work. A select collection of complete editions by the best known and most scholarly editors of English literary productions is being secured. The library is quite full of material for the study of old lyrics, and a beginning has been made in collecting material for the study of courses, such as "Morte D'Arthur," "Orlando Furioso," "Amadis de Gaul." The literature of criticism and philology is represented by such names as Ten Brink, Brook, Gosse, Earle, Sweet, Skeat, Whitney, Bright, Bosworth, Toller, Kluge, Cook, Emerson, and Mayhew. A nearly complete set of the publications of the Scottish Text Society and a complete set of Early English Text Society publications have been added recently.

#### ENGLISH LITERATURE

Professor Howe

Miss Cleaver (1904-5)

1. *Outlines of Modern English Literature*.—From Edmund Spenser to the present. A laboratory course in which the student will read the literature, instead of reading about it. The aim will

be to lead the student, as far as possible, to gain his knowledge of each epoch from his own reading of selected works of representative authors. This work will be supplemented by lectures and interpretative readings. This course is planned for Freshmen, as introductory to the special advanced courses, and also for such students as desire only one course in English literature. Professor Howe.

*Three hours, both semesters.*

2a. *Wordsworth*.—A study of the best known poems of the author, in such order as to illustrate fully the characteristics and scope of the writer. Professor Howe.

*Two hours, first semester.*

2b. *William Morris*.—A study of the life and writings, both prose and verse, sufficient to give the student a fair comprehension of the meaning and importance of Morris. Professor Howe.

*Two hours, second semester.*

[Courses 2a and 2b may be taken as one continuous course, or separately. They are open to Freshmen, supplementary to Course 1, and should be taken in Sophomore year by such students taking a major in the department as have not taken them in Freshman year.]

3a. *Shelley*.—A study of the more important works, in their order as written, and elucidated by a study of Shelley's life, illustrating the growth of his powers and his significance in the literature. Miss Cleaver.

*Three hours, first semester.*

3b. *Browning*.—A study of the Ring and the Book, followed by systematic examination of a number of the important short poems. The aim is, first, to give the student facility in reading Browning understandingly and, secondly, to suggest the range of the poet's thought and sympathies. Miss Cleaver.

*Three hours, second semester.*

[Courses 3a and 3b are planned primarily for Sophomores, and are preparatory to Courses 4a and 4b which should follow in Junior year.]

4a. *The Georgian Poets*.—Wordsworth, Coleridge, Southy, Scott, Byron, Shelley, Keats, Hunt, Hood, Landor. The authors read in class are principally Shelly, Byron, and Keats, with lectures and reports by the class on others. Prerequisites, Courses 2a and 3a. May be taken in Junior or Senior year. Professor Howe.

*Three hours, first semester.*

4b. *The Victorian Poets*.—Browning, Barrett-Browning, Tennyson, Rossetti, William Morris, Swinburne, Matthew Arnold, De Vere, Yeats, Watson, Phillips. Representative works from all but

the last four are read by the class. The four excepted are studied collaterally, with reports. Prerequisites, Courses 2b and 3b. Professor Howe and Miss Cleaver.

*Three hours, second semester.*

[Courses 4a and 4b taken together constitute a continuous course in the poetry of the nineteenth century, and should be either preceded or followed by Course 5, in the poetry of the eighteenth century.]

5. *Poets of the Eighteenth Century*.—Pope, Thomson, Collins, Gray, Goldsmith, Crabbe, Blake, Burns. During 1905-06, the authors to be read in class are Pope, Crabbe, and Burns. The others will be studied collaterally, with reports by the class, and interpretative readings. May be taken in Sophomore or Junior year, or during 1905-06 in Senior year. Prerequisites, Courses 1, 2a and 2b. Professor Howe.

*Two hours, both semesters.*

6a. *Edmund Spenser*.—A study of the Shepherd's Calendar and later books of the Faerie Queene. Professor Howe.

*Two hours, first semester.*

6b. *John Milton*.—Paradise Lost, Paradise Regained, and Samson Agonistes. Professor Howe.

*Two hours, second semester.*

7. *Shakespeare*.—Reading of about ten plays, with the critical literature that has gathered around them. The plays selected are varied from year to year, so that the student may take the course twice. Professor Howe.

*Three hours, both semesters.*

8. *The Contemporaries of Shakespeare*.—Chiefly the Elizabethan and Jacobean dramatists. Open only to students who have taken or are taking Course 7. Professor Howe.

*Two hours, both semesters.*

9. *English Prose Writers* (not novelists) of the Nineteenth Century. De Quincey, Macaulay, Carlyle, Lauder, Newman, Matthew Arnold, Ruskin. The works selected vary from year to year, so that the course may be taken twice. During the past three years the works read have been Carlyle's French Revolution and Sartor Resartus and Ruskin's Modern Painters. Professor Howe.

*Three hours, both semesters.*

10. *English Prose Writers* (not novelists) of the Eighteenth Century. Gibbon, Burke, Samuel Johnson, Boswell, Hume, Goldsmith. Recommended to students who have completed Course 9. Professor Howe.

*Two hours, both semesters.*

11a. *The English Novel; Its Evolution and Scope, from the*

Morte D'Arthur to the present, including a study (a) of the Elizabethan novelists, Greene, Lodge, Nash, etc.; (b) of the Augustan novelists, Richardson, Fielding, etc.; (c) of the Georgian novelists, Scott, Jane Austin, the Tales of Terror, etc., and (d) of the Victorian novelists, Dickens, Thackeray, etc. Lectures with collateral reading and papers by the class. Professor Howe.

*Three hours, both semesters.*

11a will not be given in 1905-6.

11b. *The English Novel in the Nineteenth Century.*—Typical works of Scott, Dickens and Thackeray (and perhaps others) will be read in class, accompanied by expository lectures. Other novels by the same authors will be read collaterally, and reported on by the class. Professor Howe.

*Three hours, both semesters.*

[Courses 11a and 11b will be given in alternate years. The course given in 1905-6 is 11b. These courses are open only to Seniors and graduates].

12. *The Teaching of English Literature.*—Lectures. Required of all Seniors taking a major in English Literature. Professor Howe.

*One hour, first semester.*

13. *Seminar in English Literature.*—For 1905-6 the author studied will be Ruskin, and the subject is Ruskin's Work as a Literary Critic. The course is preparatory to the writing of the thesis required of all Seniors taking a major in English Literature. Professor Howe and Miss Cleaver.

*Two hours, both semesters.*

## GEOLOGY

Dr. Thomas Condon, Professor Emeritus

Assistant Professor Hyde

1. *General Geology.*—A general course in physical, stratigraphical and historical geology, with laboratory work in rock collections with type fossils illustrating the geology of Oregon and the United States. This course is a foundation for all of the subsequent work of the department, and the work will differentiate from this course as a basis along the following lines.

*Four hours, both semesters.*

### A

2. *Geological Examinations and Surveys.*—A discussion of the

methods of systematically recording and interpreting geological phenomena. This will be followed by study of the scope of geological surveys and history, and results of such surveys.

The main part of the course will be taken in connection with the courses in Surveying, in Civil Engineering, and will include the representation of the results of surveys in (1) surface maps; (2) contour maps; (3) relief maps in clay.

*Two hours, both semesters.*

### B

3. *Mineralogy.*—(See Mining.)

4. *Petrography.*—(See Mining.)

5. *Petrology.*—(See Mining.)

6. *Economic Geology.*—A study of the formation and general features of ore deposits and a more detailed study of ore deposits of iron, copper, lead, zinc, silver, gold, and lesser metals, with special reference to North America and Oregon. Also a general study of the distribution and occurrence of coal, petroleum, natural gas, asphalt, marbles, and building stones, phosphates, water supply, clays, salines, etc.

*Three hours, one semester.*

7. *Palaeontology.*—The study of organically formed and fossiliferous rocks, typical fossils of all ages, with special attention to those occurring in Oregon. Lectures and laboratory work.

*Two hours, both semesters.*

8. *Blowpipe Analysis.*—(See Mining.)

## COURSES FOR GRADUATES AND ADVANCED UNDERGRADUATES

Graduate courses will be outlined in Geology as called for, and the credits assigned. In addition, Courses 2, 4, 5, 6, and 7 are open to graduate students.

## EQUIPMENT

In the Department of Geology, the University of Oregon has a fine collection of illustrative material. This is contained in two cabinets. One of rocks and minerals, part of which was presented to the University by the United States Geological Survey; the other part being rocks and minerals of Professor Condon's collection.

The other cabinet is especially rich in fossil remains and represents the fruits of over forty years of continued research in the mountains of Oregon for minerals to illustrate their history. These are, therefore, strictly characteristic of Oregon's own geological record.

These minerals more than fill twenty large glass cases, whose under spaces are crowded with over two hundred drawers also filled with illustrative geological minerals, arranged to accommodate the daily classes of the geological course. This undisplayed material would fill thirty or forty more cases, and require a much larger museum.

The department has also a valuable archaeological collection, and will make a collection of building stones, fire clays, and salines in connection with the proposed University geological survey contemplated in the course of instruction in geology.

### GREEK LANGUAGE AND LITERATURE

Professor Straub

1. *Elementary Greek*.—Gleason and Atherton's First Greek Book. *Two hours, first semester.*
2. *Xenophon's Anabasis*.—(Harper & Wallace) Book I; Goodwin's Greek Grammar. *Five hours, second semester.*  
(Courses 1 and 2 include a thorough drill in Greek declensions and conjugations.)
- 3a. *Anabasis*.—Books II, III, IV. Critical study of the Preposition (Adams); Goodwin's Greek Grammar; Greek Prose Composition (Pearson). *Four hours, first semester.*
- 3b. *Homer's Iliad*.—Books I to IV inclusive. Jebb's Homer, Mahaffy's Old Greek Life; Greek Prose Composition, (Pearson). *Four hours, second semester.*  
(Courses 3a and 3b include a thorough drill in Greek syntax, with daily translations of simple English sentences into Greek.)
- 4a. *New Testament Greek*.—The four Gospels. *Four hours, first semester.*
- 4b. *New Testament Greek*.—Acts to Revelations, inclusive. *Four hours, second semester.*  
(Courses 4a and 4b are intended for divinity students, and are elective to other Greek students. Prerequisite, Courses 1 to 3b.)
- 5a. *Xenophon's Memorabilia*.—Demosthenes, Phillipics. *Four hours, first semester.*
- 5b. *Lysias' Orations*.—(Morgan.) Selections from Herodotus. *Four hours, second semester.*

- 6a. *Medea of Euripides*.—Aechylus' Prometheus; study of the Attic Theater. *Three hours, first semester.*
- 6b. *Plato's Apology and Crito*.—Sophocle's Antigone; Greek Literature (Morris). *Three hours, second semester.*
- 7a. *Aristophanes' Clouds*.—Sedgwick's Greek Prose Composition. *Three hours, first semester.*
- 7b. *Demosthenes' De Corona*.—Bredif's Life of Demosthenes; Greek Prose Composition. *Three hours, second semester.*
8. *Greek Mythology*.—Text books, reading, and informal lectures. No Greek required for this course. Open to all students. *One hour, both semesters.*
9. *English Greek Course*.—Homeric Society. History of Greek Art, The Ancient City, Greek Life and Thought, the Attic Theater. No Greek required in this course. Open to all students. *Three hours, both semesters.*

### FOR GRADUATES AND ADVANCED UNDERGRADUATES

10. *Modern Greek Grammar*. *Three hours, first semester.*
  11. *Modern Greek Literature*, studied and compared with Classic Greek. *Three hours, second semester.*
  - 12a. *Pindar's Odes and Fragments*.—Thucydides, Books IV to VI. *Two hours, first semester.*
  - 12b. *Selections from Aristotle*. *Two hours, second semester.*
  13. *Homer's Iliad*.—Books VI to XXIV, inclusive, read with a view to the study of civilization and customs of the Homeric Tribes. *One hour, both semesters.*
  - 14a. *Greek Epigraphy*.—Text-book: Sobert's. *One hour, first semester.*
  - 14b. *Greek Inscriptions*.—Text-book: Hicks' Manual of Greek Historical Inscriptions. *One hour, second semester.*
- Courses 6b, 7a and 7b may also be taken by graduate students with the consent of the instructor.



**HISTORY**

Assistant Professor Schafer

**INTRODUCTORY COURSES**

1. *History of England*.—A general course covering all phases of English History. Lectures, reports, and assigned readings. Open to all Freshmen. *Three hours, both semesters.*
2. *Greek and Roman History*.—A general course calling for extended reading both in classical sources and in the best secondary authorities. Special stress is to be laid on Greek civilization. Given in 1905-06. *Three hours, both semesters.*
3. *Mediaeval History*.—A study of the principal historical movements of Europe from the decline of the Roman Empire to the Renaissance. Open to students who have taken the equivalent of 1 or 2. *Three hours, both semesters.*
4. *Modern History*. The development of Europe from the Renaissance to the close of the nineteenth century. Open to students who have taken 3 or an equivalent. *Three hours, both semesters.*
5. *Historiography*.—A course intended to familiarize the student with the world's great writers of history, their works, and the methods they employed in producing them; also to impart, as concretely as possible, the leading principles of research and criticism. A brief thesis, prepared according to approved methods, is required as a condition of completing the course. Open to students who have had one University course. *Two hours, both semesters.*
6. *Early American History*.—A general course covering the history of the colonies, the Revolutionary War, and the adoption of the Constitution. Open to students who have had Course 1 or an equivalent. *Three hours, both semesters.*
7. *Later American History*.—A general course covering the history of the United States from 1789 to the close of the reconstruction period. The emphasis will be placed on political history. Open to students who have taken Course 6. *Three hours, both semesters.*

**ADVANCED COURSES**

(One or two of these will be given in 1905-06.)

8. *Constitutional History of England*.—A study of the more

important phases of English constitutional development, with some attention to the working of the present constitution. Open to students who have had Course 1, and the equivalent of Courses 3 and 4. *Three hours, both semesters.*

9. *Nineteenth Century History*.—A study of the most significant movements of the world's history from the close of the French Revolution to the end of the nineteenth century. Prerequisites, Courses 1, 3, and 4, or equivalents. *Three hours, both semesters.*

10. *The Westward Movement*.—A study of American expansion, with especial reference to the new state system, and the building up of the states of the Old Northwest. The emphasis will be upon institutions, and the seminary method will be employed as far as practicable. Prerequisites, three courses including 1 and 6. *Three hours, both semesters.*

11. *Pacific Slope History*.—A study of the exploration and colonization of what is now the American portion of the Pacific coast, together with the evolution of the Pacific states. Some attention will be given to American relations with other powers on the Pacific, both occidental and oriental, especially Japan and China. Open to all students of proper maturity and training. *Three hours, both semesters.*

**EQUIPMENT**

The equipment in history is already considerable, and is being added to as rapidly as means will permit. The library contains many of the standard general histories and histories of special periods. In the way of primary sources the University is especially favored in having at hand a considerable part of the documents and manuscripts of the Oregon Historical Society, which form an exceedingly valuable body of materials for research work in history. This material is being used by our advanced students in the production of monographs on various subjects in Oregon history.

The library is also adding to its stock of historical sources, especially in the line of later English and American history. It now possesses the colonial records and archives of several of the original states, and a reasonably complete collection of materials on the Old Northwestern states. These include the historical society publications of Ohio, Indiana, Illinois, Michigan, and Wisconsin, and a large part of the state documents of the same states. Efforts are now being made to complete our files of the publications of the Pacific coast states, of which a large part is already at hand.

## LATIN LANGUAGE AND LITERATURE

Professor Dunn

## PRIMARYLY FOR UNDERGRADUATES

A. Ovid (selections from the *Metamorphoses*); Vergil (*Æneid*, Books I-VI, with selections from Books VII-XII.)

*Four hours, both semesters.*

This course is designed primarily for students who offer but three years of Latin at entrance. It is therefore essentially preliminary to what is more generally recognized as college Latin. From the nature of the subjects read, the year's work will be concerned chiefly with the consideration of the principles of Latin verse and metre. Selections from Ovid's *Metamorphoses*, to the extent of at least fifteen hundred lines, will be studied until the Christmas holidays, when the *Æneid* of Vergil will form the basis of work for the remainder of the year. The first six books will be read entire, supplemented by selections, chiefly at sight, from the latter half of the poem.

Course A or entrance credits in its equivalent are necessary to admission to Course 1.

(Pending the organization and perfection of four-year high school courses throughout the state, Course A is offered for the year 1905-06, but may be discontinued thereafter, at least in the form and for the purpose stated above.)

Text-books: Gleason's *A Term of Ovid* (American Book Co.); Knapp's *Vergil's Æneid* (Scott, Foresman & Co.).

(Courses 1 to 8, as tabulated below, are contemplated to form a series, covering the four years of the ordinary collegiate course. They are designed to be taken in succession of pairs, Course 1 in the first semester of the Freshman year, to be succeeded by Course 2 in the second semester, 3 and 4 in the corresponding semesters of the Sophomore year and so on throughout the four years. Though an absolute rigidity in succession is not insisted upon, these eight courses are projected upon the pre-supposition of a regular graduation in treatment and subject, embracing the authors almost universally read in college. The student will therefore find it advantageous, though not essential, to follow out the series.)

1. *Livy*—(Selected Books or scattered selections). Sight reading in Eutropius and Valerius Maximus.

*Three hours, first semester.*

2. *Horace*—(Odes and Epodes). Selections from Catullus and other poets.

*Three hours, second semester.*

Courses 1 and 2, taken in succession, are open to students who have presented four years of Latin at entrance or have passed in Course A. They properly begin the usual college course in Latin. In the first semester, Roman republican history from Livy is the basis of study. Some latitude is observed by the instructor in the choice of epoch and consequently in the portions of Livy adopted for reading. In 1905-06, Books I and II are offered, affording an opportunity to study Roman history from its traditional beginning. Livy's narrative will be supplemented by sight passages from the *Epitome of Eutropius* and the *Anecdotes of Valerius Maximus*. The students will be referred to standard histories of Rome in the college library, such as those of Mommsen and Ihne, and papers upon suggested topics in Roman history will be required at intervals.

Course 2 has Roman Lyric poetry for its theme, with the Odes and Epodes of Horace for its central consideration. Selections from Catullus more especially and from other poets will be read, chiefly at sight, for purposes of comparison.

Text-books: Edward's *Livy*, Book I (Pitt Press Series); Conway's *Livy*, Book II (Pitt Press Series); Hazzard's *Eutropius* (American Book Co.); Smith's *Fifty Selections from Valerius Maximus* (Sanborn & Co.); Smith's *Odes and Epodes of Horace* (Ginn & Co.); *Selections from Latin Poets with Brief Notes* (Harvard University Press.)

3. *Horace*—(Satires and Epistles.) Selections from Phaedrus and Aulus Gallius.

*Three hours, first semester.*

4. *Tacitus*—(Selected books from the *Annals* or *Histories*.) Supplementary reading in Velleius Paterculus.

*Three hours, second semester.*

Course 3, offered at the opening of the academic year, affords an opportunity for students who have passed in Course 2 to continue and complete the study of Horace, viewing him in quite a distinct field, his Satires and Epistles. Horace will be relieved and supplemented by occasional selections and sight reading in the *Fables of Phaedrus* and the *Noctes Atticae of Aulus Gallius*.

Tacitus is the basis of Course 4, the selections varying from year to year. In 1905-06, Books I and II of the *Annals* will be read. The narrative of Tacitus will be studied in comparison with that of Velleius Paterculus, and this period of history will form the basis of personal investigation on topics assigned from time to time.

Text-books: Rolfe's Satires and Epistles of Horace (Allyn and Bacon); Flather's Phaedrus (Pitt Press Series); Knapp's Stories from Aulus Gallius (American Book Co.); Masom and Fearenside's Tacitus, Books I and II, (University Tutorial Series); Rockwood's Velleius Paterculus (Sanborn & Co).

5. *Suetonius*—(Selected Lives). Pliny (Selected Letters).  
*Three hours, first semester.*
6. *Juvenal*—(Selected Satires). Martial (Selected Epigrams).  
*Three hours, second semester.*

Courses 5 and 6, designed to be taken in successive semesters, continue the series begun by the four courses preceding. They cover an interesting epoch in the literature of the Empire, and are especially valuable for their reference to Roman society of the Decline. A rapid succession of four different authors, each a master in a distinct province of letters, provides a pleasing variety of topic and style. The Lives of Tiberius, Caligula, Claudius, and Nero will be the selections read from Suetonius in 1905-06. The selections from Juvenal will be in the main contained within the first period of his literary activity.

Text-books: Pike's Selected Lives of Suetonius (Allyn and Bacon); Merrill's Selected Letters of Pliny (Macmillan's Classical Series); Prior's Sixteen Satires of Juvenal (Bell's Grammar School Classics); Lindsay's Martialis Epigrammata (Oxford University Press.)

7. *Plautus*—(Four selected plays). Quintus Curtius (selected Books).  
*Three hours, first semester.*
8. *Cicero*—(De Finibus and Somnium Scipionis with supplementary readings from the Correspondence). Lucretius (Selections.)  
*Three hours, second semester.*

The four Comedies of Plautus to be read in 1905-06 are the Captivi, Trinummus, Amphitruo, and Menaechmi. The studies thus afforded in Roman Comedy will be varied by readings from Quintus Curtius, in the life and exploits of Alexander the Great.

Course 8 divides its interests between selections from the Dialogues and Correspondence of Cicero, and from the De Rerum Natura of Lucretius. Books I and II of Cicero De Finibus with his "Scipio's Dream" from the De Re Publica, will be followed by rapid readings in typical selections from the Correspondence. The course will close with Book V of Lucretius, which, of all the six books, has perhaps the strongest claim to popularity.

Text-books: Goetz and Schoell's T. Macci Plauti Comoediae, Fasciculi I, II, IV and VII, or, in separate texts with notes, Hallidie's Captivi (Macmillan's Classical Series); Gray's Trinummus (Pitt Press Series); Durham's Amphitruo (Allyn and Bacon); Wagner's Menaechmi (Bell's Public School Classics); Fowler's Q. Curti Rufi Historiarum Libri III et IV (Ginn & Co.); Ciceronis de Finibus, Libri I et II (University Tutorial Series); Pearman's Somnium Scipionis (Pitt Press Series); Haydon's Cicero ad Atticum, Book IV (University Tutorial Series); Duff's T. Lucreti Cari Liber V (Pitt Press Series).

#### PRIMARILY FOR GRADUATES

(The courses following herewith are designed for advanced students, but are open to undergraduates who, after due conference with the instructor, can give evidence for their fitness to satisfy the requirements of the courses. These courses are given usually in alternate years, as specified below in the descriptive paragraphs.)

9. *History of Latin Literature*—Part I (Poetry). Lectures and reading.  
*Three hours, both semesters.*

(To be omitted in 1905-06; offered in 1906-07.)

10. *History of Latin Literature*—Part II (Prose). Lectures and reading.  
*Three hours, both semesters.*

Courses 9 and 10 are given in alternate years, comprising lectures continued throughout the year, in which the entire field of Latin literature is viewed in chronological series from the two several standpoints of poetry and prose. Illustrative selections from the authors will either be read and discussed in the classroom or assigned for private reading, reports of which will be required at stated intervals.

Text-books: Students will be constantly referred to the classical texts in the college library. Inadequate, but yet the most available, hand books of selections are the following: Smith's Latin Selections, revised by Clement (Allyn and Bacon); Gudeman's Latin Literature of the Empire, two volumes, Poetry and Prose (American Book Co.); Merry's Fragments of Roman Poetry (Oxford University Press); Thackeray's Authologia Latina (Bell & Son); Baehren's Fragmenta Poetarum Romanorum (Teubner).

11. *The Roman Theater*—Terence (Three selected comedies). Fragments of lost authors. Lectures.  
*Two hours, first semester.*

12. *The Roman Theater*.—Plautus (Three selected comedies). Seneca (Three selected Tragedies). Lectures.

*Two hours, second semester.*

Courses 11 and 12 are designed to be taken in succession, occupying the first and second semesters, respectively. Lectures supplemented by the discussion of fragments from lost plays and the reading of three selected plays from each of the three playwrights, whose works have come down to us in any entirety, will give a general conspectus of the range of Latin scenic literature. The plays of Plautus selected will not include any of those usually read in Course 7. With this exception, the choice of plays to be read from the three authors may vary from year to year. In 1905-06, the plays selected will be the *Adelphoe*, *Hautontimorumenos*, and *Phormio* of Terence; the *Miles Gloriosus*, *Mostellaria*, and *Pseudolus* of Plautus; the *Œdipeus*, *Troades*, and *Octavia* of Seneca.

Text-books: Dziatzkos *P. Terenti Afri Comoediae* (Tauchnitz), or the following annotated editions: Sloman's *Adelphoe* and *Phormio* (Oxford University Press); Gray's *Hautontimorumenos* (Pitt Press Series); Goetz and Schoell's *T. Macci Plauti Comoediae Fasciculi IV-VI* (Teubner), or the following annotated editions: Tyrrell's *Miles Gloriosus* (Macmillan's Classical Series); Fay's *Mostellaria* (Allyn & Bacon); Morris' *Pseudolus* (Allyn & Bacon); Peiper and Richter's *L. Annaei Senecae Tragoediae* (Tauchnitz).

13. *Roman Lyric and Elegiac Poetry*.—Catullus and Ovid. Lectures.

*Two hours, first semester.*

14. *Roman Lyric and Elegiac Poetry*.—Tibullus and Propertius. Lectures.

*Two hours, second semester.*

These two courses combined make a year's study in the Lyric and Elegiac poets, covering an epoch, generally speaking, of contemporaneous authors,—Horace excepted, to whom notice is given only by way of comparison. The lectures and reading are so divided that two authors will be studied each semester, though the course is primarily designed to be a unit in subject and treatment. The study of the texts will be alternated with lectures upon the lives of the authors and the distinctive features of Lyric and Elegiac poetry.

Text-book: Ellis's *Catulli Veronensis Carmina Selecta* (Oxford University Press); Owen's *Ovid's Tristia*, Books I and III, (Oxford University Press); Ramsay's *Selections from Tibullus and Propertius* (Oxford University Press); Postgate's *Propertius* (Macmillan's Classical Series).

15. *Roman Satire*.—Lectures with the study of fragments and Horace's *Satires*.

*Two hours, first semester.*

16. *Roman Satire*.—Persius and Juvenal. Lectures.

*Two hours, second semester.*

(Courses 15 and 16 to be omitted in 1905-06; to be offered in 1906-07.)

In these courses Roman Satire will be discussed in lectures covering the history and development of that department of Latin literature, and the lives of its writers, illustrated by the reading of the fragments, such as those of Ennius, Lucilius, and Varro, and selected satires of Horace, by way of comparison, ending with the *Apokolocyntosis* of Seneca. The second semester will have for its special consideration the works of Juvenal and Persius, the selections from the former excluding those usually read in Course 6 and with more special reference to the second period of Juvenal's literary career.

Text-books: Merrill's *Fragments of Roman Satire* (American Book Co.); Palmer's *Horace's Satires* (Macmillan's Classical Series); Pretor's *A. Persii Flacci Satirarum Libri* (Rivington's *Catena Classicorum*); Peck's *Juvenal* (American Book Co.).

17. *Ovid*.—The *Fasti*, Roman Religion, and Religious Archaeology of Rome.

*Two hours first semester.*

18. *Ovid*.—The *Metamorphoses* and Classic Mythology.

*Two hours, second semester.*

Ovid's works present a rich field for research in many affiliated branches of classical science. Course 17 in the first semester makes the *Fasti* the basis of lectures and reading in Roman religion and the temple-archaeology of Rome. The six books of the *Fasti* will be read with the Roman calendar and the map of Rome in constant attendance.

In the second semester, Course 18 comprises a research into Greek and Roman Mythology, with the *Metamorphoses* as a background.

Text-books: Paley's *Six Books of the Fasti* (Bell's Grammar-School Classics); Riese's *P. Ovidii Nasonis Carmina*, Vol. II (Tauchnitz); containing the *Metamorphoses*, or scattering annotated editions of select books, such as Simmon's *Books I-III* (Macmillan's Classical Series); Summer's *Book VIII* (Pitt Press Series); *Book XI* (University Tutorial Series); Simmon's *Books XIII and XIV* (Macmillan's Classical Series).

19. *Epistolary Latin*.—Select epistles of Cicero and Seneca.  
*Two hours, first semester.*
20. *Epistolary Latin*.—Select epistles of Pliny and Fronto.  
*Two hours, second semester.*

(Courses 19 and 20 to be omitted in 1905-06; to be offered in 1906-07.)

The four great "letter writers" will be considered in comparison in these two courses, so divided that either semester may be elected to the exclusion of the other. Definite portions of the text will be selected, excluding such portions as may have been read in Courses 5 or 8.

Text-books: Prichard and Bernard's Selected Letters of Cicero (Oxford University Press); Haase's L. Annaei Senecae Opera, Vol. III (Teubner); Cowan's Pliny's Letters, Books I and II (Macmillan's Classical Series); Naber's Frontonis Epistulae (Teubner).

21. *The Corpus Caesarianum*.—The Gallic War. Lectures and reading.  
*Two hours, first semester.*
22. *The Corpus Caesarianum*.—The Civil War and Libri Incertorum Auctorum. Lectures and reading.  
*Two hours, second semester.*

Courses 21 and 22, though covering distinct epochs in the Corpus passing under Caesar's name, are invaluable as a unit to teachers of Latin. Not merely Caesar's text, but all the so-called "helps" that have accrued about Caesar, will be discussed and illustrated in lectures. Themes for special investigation will be suggested and theses required occasionally.

Text-books: Bond and Walpole's Gallic War (Macmillan's Classical Texts); Perrin's Civil War (University Publishing Co.); Du Pontet's Text in two volumes in the Oxford Classical Texts.

23. *The Works of Vergil*.—The Carmina Minora. Lectures and reading.  
*Two hours, first semester.*
24. *The Works of Vergil*.—The Æneid. Lectures and reading.  
*Two hours, second semester.*

(Courses 23 and 24 to be omitted in 1905-06; to be offered in 1906-07.)

These two courses are designed for the aid of teachers and for those who wish to study the complete works of Vergil, so arranged however as to permit either semester to be elected independently of the other. The Eclogues, Georgics and Carmina Incerta will be

studied in Course 23, while the Æneid will constitute the basis of work in the second half year.

Text-books: Page's Works of Vergil in three volumes (Macmillan's Classical Series); Baehren's Poetae Latini Minores, Vol. II (Teubner), containing the Carmina Incerta.

25. *Topography of Rome*.—Lectures and investigation.  
*Three hours.*

Lectures, assisted by maps, pictures and other available material, will illustrate in chronological order the monumental growth of Rome from prehistoric times to the fall of the Western Empire. Theses on suggested topics will be required at stated intervals.

## MATHEMATICS

Assistant Professor De Cou

Mr. Frazer (1904-5)

Assistant Professor Boynton

The instruction in Mathematics is designed to secure two objects: first, high mental discipline for the general student through the study of an exact science; second, a thorough understanding of those subjects which form the foundation of most of the natural and applied sciences, such as physics, astronomy and the engineering sciences.

Courses 2 and 4 are designed for students in literary courses who desire to secure foundation for their work in the sciences.

The courses fundamental to engineers are as follows: Freshman year, Course 3; Sophomore year, Course 5; Junior year, Course 14. These courses are recommended also to students who intend to specialize in the natural sciences or mathematics.

A number of fundamental elective courses are offered to the advanced student; they are so arranged as to give breadth and symmetry to his knowledge of mathematics and prepare him, if he so desires, to pursue graduate study profitably.

Graduate courses will be arranged to suit the needs of those applying for them.

## COURSES IN MATHEMATICS

1. *Solid Geometry*. Text book: Wentworth.  
*Five hours, second semester.*
2. *Advanced Algebra and Plane Trigonometry*.—An elementary course. Open to Freshmen. *Three hours, both semesters.*

3. *Advanced Algebra, Trigonometry, and Analytical Geometry.*—An introductory course. Required of Freshmen in Engineering. Open to all Freshmen. *Five hours, both semesters.*

4. *Analytical Geometry and Calculus.*—An introductory course for literary and general scientific students. Prerequisite Course 2. *Three hours, both semesters.*

5. *Differential and Integral Calculus.*—This course includes the development of the fundamental principles and formulas of differential and integral calculus; their applications to expansion of functions, indeterminate forms, the determination of the various properties of plane curves, maxima and minima, areas and length of curves, areas and volumes of surfaces, hyperbolic functions, etc. Prerequisite, Course 3. Required of Sophomores in Engineering courses. Elective for others. *Five hours, both semesters.*

6. *Differential Equations.*—A practical course in the theory of ordinary and partial differential equations and their solutions. Prerequisites, Courses 3 and 5. Text book: Murray's Differential Equations. *Three hours, both semesters.*

7. *Advanced Differential Equations.*—A continuation of Course 6, based on the texts of Murray, Johnson, and Forsyth. *Two hours, both semesters.*

8. *Determinants and Theory of Equations.*—An elementary, but very important course, giving the essential principles required in various advanced studies. Text: Burnside and Panton. (Not given in 1905-6).

9. *Solid Analytical Geometry.*—An advanced course dealing with surfaces of the second degree and their properties, together with some discussion of surfaces in general. Text-book: C. Smith's Solid Geometry. (Not given in 1905-6).

10. *Advanced Integral Calculus.*—Including definite integrals, Fourier series, elements of elliptic integrals and functions. Prerequisite, Course 5. *Three hours, both semesters.*

11. *Theory of Functions of a Complex Variable.*—  
*Three hours, one semester.*

12. *Analytical Trigonometry.*— *Three hours, one semester.*

13. *Projective Geometry.*—An introductory course based on Holgate's translation of Reye's *Geometrie der Lage*.

*Three hours, one semester.*

14. *Analytical Mechanics.*—An elementary course dealing with

the principles and applications of statics, kinematics, and kinetics. Prerequisite, Course 5. Required of Juniors in Engineering courses. *Three hours, both semesters.*

15. *General Astronomy.*—A course embracing a brief historical sketch of the science, the fundamental principles, with such problems as yield to elementary methods of treatment, and an exposition of the more important facts known in reference to the bodies of the solar system, the stars, star clusters and nebulae, tides as cosmogonic agencies, and a comprehensive account of the Nebular Hypothesis. Observatory work will be carried on as the weather permits. Not given in 1905-06. *Three hours, one semester.*

16. *Spherical and Practical Astronomy.*—Lectures, observatory work, and computations. The observatory is provided with a good transit instrument, a sidereal clock, and a sextant with artificial horizon. The transit instrument is so arranged that it may also be used as a sight-seeing telescope. Not given in 1905-06. *Three hours, one semester.*

#### GRADUATE COURSES

On application, courses will be provided for graduates and others of sufficient mathematical maturity and training, in the following subjects: Modern Analytical Geometry, Differential Geometry, Elliptic Functions, Substitution Groups, and Theory of Numbers.

#### EQUIPMENT

The department is provided with a good working library of the best texts and receives regularly a number of the best mathematical journals.

A collection of the famous Brill models, made in Germany, is an important adjunct to the work in geometry. Included in this collection are plaster models of ellipsoids, hyperboloids of one and two sheets, elliptic and hyperbolic paraboloids, on which are shown the geodetic lines, lines of curvature, circular, and principal sections, etc.; also wire and thread models, illustrating ruled surfaces and generating lines of conicoids. A spherical black-board, three feet in diameter, black-board apparatus for use in geometrical constructions, and numerous models and drawings constructed by the students add materially to the equipment.

**MINING AND METALLURGY**

Assistant Professor Hyde

1. *Mineralogy*.—Study of the nature and classification of minerals, and the methods most commonly used for their determination, including the study of the crystal forms, and blowpipe analysis. Must be preceded by or taken with Chemistry 2. Laboratory fee \$10.

*Two hours throughout the year.*

2. *Petrology*.—An introduction to the nature and classification of rocks, with special reference to the methods by which they may be determined in the field or mine. Lectures, laboratory, and field work. Must be preceded by Course 1.

*Three hours, second semester.*

3. *Economic Geology*.—An introduction to the nature, occurrence, and economic uses of minerals of commercial value. Lectures and assigned reading. Must be preceded by Course 1 and Geology 1.

*Three hours, first semester.*

4. *Field Work*.—Study of the areal and structural geology of a portion of the region adjacent to the University. The results of this study to be recorded on topographic maps and diagrammatic cross section. Must be preceded by Courses 1 and 2, and Geology.

*Hours to be arranged.*

5. *Assaying*.—The fire assay of the most important types of gold, silver, and lead ores, the assay of bullion, and laboratory amalgamation and concentration tests. Further practice in assaying is given students in checking the results of their experiments in the metallurgical laboratory. Must be preceded by Course 1, and Chemistry 1 and 2. Laboratory fee \$15.

*Six hours laboratory work for first semester.*

6. *General Metallurgy*.—An elementary course dealing with the nature of metals, alloys, ores, fuels, furnaces, and smelting and leaching operations. Must be preceded by Course 1 and Chemistry 1, 2, and 4. May be taken contemporaneously with second semester of Chemistry 4. Lectures and assigned readings.

*Three hours, first semester.*

7. *Metallurgical Laboratory*.—Determination of method by which the values can most profitably be extracted from a given ore, investigation of special metallurgical problems, etc.

*Two to five hours, one semester.*

8. *Mining*.—Lectures, assigned reading, and quizzes on mining operations, including prospecting, development, methods of working, timbering, shaft sinking, hoisting, drainage, and ventilation. Open only to engineering students with full Junior standing.

*Three hours, second semester.*

9. *Thesis*.—Every Senior will be expected to present a thesis at the close of the Senior year. This should be in the form of a report upon some mine which he has examined, a report upon the method by which some ore can be most advantageously worked, with specifications and estimates for a plant for working it, or a report embodying the results of some special investigation in economic geology, metallurgy, or mining engineering.

*Three hours, second semester.*

**LABORATORY FEES**

Course 1, Mineralogy, \$10.00.

Course 5, Assaying, \$5.00.

Course 7, Metallurgical Laboratory, \$10.00.

**MODERN LANGUAGES**

Dr. Schmidt

Miss Thurston

The aim of the instruction in the department is primarily to enable students to use modern German, French, Spanish, or Italian with facility in reading, writing, and, as far as practicable, in speaking, and to acquaint them with the masterpieces in the respective literatures.

Opportunity is also given for graduate courses in Germanic and Romanic languages. These are intended especially for students who desire to make the teaching of these languages their profession, or who expect to take an advanced degree in them. Careful attention is given to the linguistic as well as to the literary training of the student, aiming at a comprehensive insight into the historical growth of the Germanic languages and literatures.

Any of the following courses, German 1 to 12, French 1 to 6, are open to Freshmen who have had the prerequisite courses.

**GERMAN LANGUAGE AND LITERATURE**

1. *Elementary German*.—The elementary course comprises: Joynes-Meissner's German Grammar; German composition; translation of easy prose and poetry. Special attention is paid to systematic

training in pronunciation. The reading of about 100 pages of graduated texts from a reader is required. Huss's German Reader is used. In addition to this one or two of the following selections will be read: Storm's Immensee; Heyse's L'Arrabbiatta; Volkmann's Kleine Geschichten; Maerchen und Erzählungen; Seidel's Maerchen; Zschokke's Der Zerbrochene Krug. German conversation.

*Five hours, both semesters.*

2. *Advanced German.*—During the second year the work comprises advanced German Grammar and Composition, Syntax. German conversation (based upon Vos's Material or some other method) throughout the year. Material to be read is selected from the following list: Das Maedchen von Treppi; Baumbach's Die Nonna; Wildenbruch's Das edle Blut; Hillern's Hoeher als die Kirche; Seidel's Leberecht Huehnchen; Hauff's Das Kalte Herz; Leander's Traeumerien; Freitag's Die Journalisten; Lessing's Minna von Barnhelm; Schiller's Wilhelm Tell; Goethe's Hermann und Dorothea. The class is expected to read two or three stories and two or three plays during the year.

*Four hours, both semesters.*

3. *Classical Drama.*—(a) Goethe's Egmont; Torquato Tasso; Iphigenie auf Tauris; (b) Schiller's Maria Stuart; Jungfrau von Orleans; Wallenstein; (c) Lessing's Minna von Barnhelm; Emilia Gallotti; Nathan der Weise; (d) Grillparzer's Sappho; (e) Kleist's Prinz Friedrich von Homburg. Writing of essays in German; German conversation. Practice in writing German is afforded by means of dictation or similar exercises.

*Three hours, both semesters.*

4. *German Fiction and Contemporary Literature.*—During the year some of the following works will be read; Ebner-Eschenbach's Die Freiherren von Gemperlein; Keller's Dietegen; or Kleider Machen Leute; Riehl's Novellen, for example, Burg Neideck, Der Fluch der Schoenheit; Der stumme Ratsherr, Das Spielmannskind; Scheffel's Ekkehard; Wildenbruch's Der Letzte; Dahn's Sigwalt und Sigridh, Meyer's Gustav Adolph's Page; Sudermann's Der Katzensteg; and Auerbach's Brigitta, Frenssen's Joern Uhl, etc.

*Three hours, both semesters.*

5. *Modern German Drama.*—The following dramas will be read: Wildenbruch's Harold, Hauptmann's Die versunkene Glocke, Sudermann's Johannes, Fulda's Der Talisman, etc.

*Three hours, both semesters.*

6. *German Poetry.* Goethe's Poems; Schiller's Ballads; Uh-

land's Poems; White's Heine's Poems; Klenze's Deutsche Gedichte; Hatfield's German Lyrics and Ballads, or Kluge's Auswahl deutscher Gedichte will be used as text-book. *One hour, both semesters.*

7. *Goethe's Faust*—Part I, with commentary.

*Two hours, one semester.*

8. *Heine's Prose.*—Die Harzreise; Die Romantische Schule and other selections will be read. *Two hours, one semester.*

9a. *Historical German.*—This course consists of the rapid translation of modern historical and economic German. It is especially designed for those students who wish to acquire a sufficient knowledge of the language to enable them to read German books on history, philosophy, etc. The matter to be read is selected from such works as Riehl's Kulturgeschichtliche Novellen; von Sybel's Kleine Historische Schriften; Freitag's Bilder aus der deutschen Vergangenheit; Seiler, Die Heimat der Indogermanen, Schiller's Geschichte des dreissigjaehrigen Krieges, etc.

*Two hours, one semester.*

9b. *Scientific German.*—This course is recommended to students who are taking or who plan to take special courses in Natural Science or in Medicine. Gore's or Dippold's German Science Reader is used as an introduction, and is followed by monographs on various subjects, in order to give the student as large a vocabulary as possible. Among the books to be read are: Lassar-Cohn's Die Chemie im taeglichen Leben; Brewer's Naturlehre; Muller's die electrischen Maschinen; Helmholtz's Ueber Goethe's Naturwissenschaftliche Arbeiten. No student is advised to take this course who has not had at least two years of thorough preparation in literary German. Alternates with 9a. *Two hours, both semesters.*

10. *Advanced German Composition*—C. A. Buchheim. Materials or German Prose Composition. Parts I and II.

*One hour, both semesters.*

11. *German Conversation.*—Only open to students who have had Courses 1 and 2. *Two hours, both semesters.*

12. *General History of German Literature.*—Bernhardt's or Karsten's Deutsche Litteraturgeschichte is used as a text-book. A limited number of lectures are given. *One hour, both semesters.*

#### FOR GRADUATES AND ADVANCED UNDERGRADUATES

In so far as the demand will justify the formation of classes, the department will offer the following courses.



13. *Middle High German*.—Michels, *Mittelhochdeutsche Grammatik*, 1900; Henrici, *Proben der Dichtungen des Mittelalters*, Berlin, 1898; Selections from *Nibelungenlied*; Walthar von der Vogelweide; Parzival, Lexer, *Mittelhochdeutsche Taschen-Woerterbuch*.

14. *Old High German*.—Braune's *Althochdeutsche Grammatik*, and the same author's *Althochdeutsches Lesebuch* (4th Ed.); Muelenhoff and Scherer's *Denkmaeler Deutscher Poesie und Prose* (3rd Edition); Behaghel's *Historical Grammar of the German Language*.

15. *Gothic and the Elements of Comparative German Grammar*.—Braune, *Gotische Grammatik*, 4. Auflage, Halle, 1895; Heyne's *Ulfilas*, 9. Auflage, von F. Wrede, Paderborn, 1896; Streitberg's *Urgermanische Grammatik*. This course is required for advanced degrees in English Philology.

16a. *Norwegian or Swedish*.—Grammar and Reading. Representative authors.

16b. *Danish*.—Groth's *Danish Grammar*. Reading of representative authors. Courses 16a and 16b alternate.

17. *History of German Literature to the Nineteenth Century*.—With special study of the classic periods of the twelfth and eighteenth centuries. Scherer's *Geschichte der deutschen Literatur*; Franke's *Social Forces in German Literature* are used as text-books. Papers on assigned topics will be required.

18. *Physiological Phonetics*.—The sounds of English, German and French. Grandgent, *German, and English sounds* (Boston, Ginn & Co., 1892); Ripmann's adaptation of Viator's *Kleine Phonetik* (London, J. M. Dent & Co., 1899); Sweet, *A Primer of Phonetics* (Oxford, Clarendon Press, 1890); lectures. Each student will make a special study of his English vowels.

*Two hours, both semesters.*

## ROMANCE LANGUAGES AND LITERATURES

### FRENCH

1. *Elementary French*.—Fraser and Squair's *French Grammar*, Part I, with written exercises and systematic training in French pronunciation. The reading of several hundred pages of graduated texts is required. Super's *French Reader* or some similar text-book is used. In addition to this some of the following will be read: Halevy, *L'Abbe Constantin*; Merimee, *Colomba*; Labiche and Martin, *Le Voyage de M. Perrichon*. Writing from dictation. French conversation.

*Five hours, both semesters.*

2. *Advanced French*.—Composition and syntax on the basis of Fraser and Squair's *French Grammar*, Part II, and Francois' *Advanced French Prose Composition*. The reading of easy modern French in the form of stories, plays, or historical or biographical sketches; George Sand, *La Mare au diable*; Musset, *Pierre et Camille*; Augier and Sandeau, *Le Gendre de M. Poirier*; Labiche and Martin, *La Poudre aux yeux*; Balsac, *Cinq scenes de la Comedie Humaine*; About, *Le Roi des montagnes*. French conversation.

*Four hours, both semesters.*

3. *History of French Literature in the Seventeenth Century*.—The following texts will be read: Corneille, *Le Cid*, *Cinna*; Racine, *Athalie*, *Esther*, *Andromaque*, *Phedre*, *Moliere*, *Le Misanthrope*, *Les Precieuses ridicules*, *Le Bourgeois gentilhomme*; Boileau, *L'Art poetique*; selections from Descartes, Pascal, *La Rochefoucauld*, *Madame de Sevigne*, *Bossuet*, *La Bruyere*. Lectures. Practice in writing French. This course is open to students who have completed Course 2 or its equivalent.

*Three hours, both semesters.*

4. *History of French Literature in the Eighteenth and Nineteenth Centuries*.—The following texts will be read: Marivaux *Le Jeu de l'amour et du hasard*; selections from the prose work of Rousseau and Voltaire; Beaumarchais, *Le Barbier de Seville*; Chateaubriand, *Le dernier Abencerage*; Beranger, Alfred de Musset, Alfred de Vigny, Lamartine, Gautier, Victor Hugo, Leconte de Lisle, Verlaine, Sully-Prudhomme, selected poems: Victor Hugo, Ruy Blas; Taine, the Introduction to the *Historie de la litterature anglaise*. Lectures. Practice in writing French. Course 4 alternates with Course 3.

*Three hours, both semesters.*

5. *Scientific French*.—The purpose of this course is to acquaint the student with technical terms, to familiarize him with scientific forms of expression and style, and to enable him to read with profit the scientific and technological contributions to French magazines. Hurdler's or Davies' *Scientific French Reader* will be used, and a number of magazine articles will be assigned to each student for outside reading. Open to students who have had two years of French.

*One hour, both semesters.*

6. *French Conversation*.—Only open to students who have had Courses 1 and 2.

*Two hours, both semesters.*

### FOR GRADUATES AND ADVANCED UNDERGRADUATES

7. *Old French*.—Lectures on old French Phonology and Morphology. Students shall provide themselves in advance with Gas-

ton Paris's *Extraits de la Chanson de Roland* (Paris 6th ed., 1899) and Schwan-Behren's *Grammaire de l'ancien français*, traduction de Bloc (Leipzig, 1900). Other books used are Koerting, *Lateinisch-romanisches Woerterbuch* (Paderborn, 1901), Paris's edition of *La Vie de St. Alexis* (Paris, 1903); and Suchier's edition of *Aucassin et Nicolette* (Paderborn, 1899).

Open to students who have had at least two years of German, four years of French, and four years of Latin.

*Three hours, both semesters.*

#### SPANISH

1. *Elementary Spanish*.—Ramsey, *A Spanish Grammar*; Matzke, *First Spanish Readings*; Alarcon *El Capitan Veneno*, *Padre Isla*, *Gil Blas de Santillana*. The course is open to students who have had French and Latin.

*Three hours, both semesters.*

2. *Advanced Spanish*.—Moratin, *El Si de las Ninas*; Valdes, Jose; Galdos, *Dona Perfecta*, *Marianela*, *Electra*; Ford's *Spanish Composition*; Spanish conversation.

*Three hours, both semesters.*

3. *Classical Spanish*.—Cervantes, *Don Quixote* (selections); Calderon, *Le Vida es Suena*; selected plays of Lope de Vega. Fitzmaurice-Kelly's *History of Spanish Literature* will be used as a text-book.

*Three hours, both semesters.*

#### ITALIAN

1. *Elementary Italian*.—Grandgent, *Italian Grammar*; Bowen's *First Italian Readings*; Alfieri, Saul; Goldoni, *Un Curioso Accidente*. This course will be open, if a sufficient number apply, to students who have had two years of French or four years of Latin.

*Three hours, both semesters.*

2. *Advanced Italian*.—The classic period of Italian literature. Readings from Dante, Boccaccio and Petrarch. Garnet's *History of Italian Literature* will be used as a text book.

*Three hours, both semesters.*

### PHILOSOPHY AND EDUCATION

Assistant Professor Sheldon

#### I. PHILOSOPHY

1. *Historical and Critical Introduction to Philosophy*.—Lectures, papers, and private reading. Required of all students in the philosophical-educational group.

*Three hours, both semesters.*

2. *Ethics*.—History of Ethics, with outlines of speculative Ethics.

*Two hours, both semesters.*

3. *Problems in Social Ethics*.—President Campbell.

*One hour, both semesters.*

4. *English Philosophy*, with particular attention to the Synthetic philosophy of Herbert Spencer.

*Three hours, both semesters.*

5. *Greek Philosophy*.—History of Greek speculation with special attention to Plato and Neo Platonism.

*Two hours, both semesters.*

6. *British Philosophy*.—From Bacon to Herbert Spencer. A close study of Hobbes, Locke, Berkeley, Hume, Hamilton, Mill, Bain, Spencer, and evolutionary group of thinkers.

*Two hours, both semesters.*

7. *Kant and his successors*.—An examination of the systems of Kant, Fichte, Hegel, Herbart, Schopenhauer, Lotze, and Wundt.

*Two hours, both semesters.*

#### II. EDUCATION

It is the aim of the department to offer a group of courses which will acquaint the students with the results and methods of work in all the important departments of modern pedagogy. In order to accomplish this result, the courses will be given in a two-year cycle, as outlined below. In all courses, lectures, the syllabi of which are placed in the hands of the students, serve as an introduction and outline of the subject. The major portion of the student's energy, however, is spent in preparing papers, reports and discussions on phases of the subject not treated in the lectures. As in the laboratory courses in the exact sciences, the chief purpose is to train the student to work and think for himself, the lectures serving simply as a guide. Owing to the advanced nature of the courses, students will not ordinarily be admitted to the classes in pedagogy until the beginning of their third or Junior year.

1. *Growth of Educational Doctrine* in the eighteenth and nineteenth centuries. A careful, intensive study of Locke, Rousseau, Pestalozzi, Froebel, Herbart, and Herbert Spencer. Offered in 1905-06.

*Three hours, first semester.*

2. *Philosophy of Education and Educational Criticism*.—Howe, Rosecrans, O'Shea, Huxley, Search, Eliot, Brooker, Briggs, Wilson, King. *Treats of Educational Aims and Values*. Offered in 1905-06.

*Three hours, second semester.*

3. *A Pedagogical Psychology*—Application of the fundamental principles of adult psychology to educational problems. Offered in 1906-07. *Three hours, first semester.*

4. *Genetic Psychology*.—Growth of the individual mind through childhood and adolescence to maturity, with reference to pedagogy. Offered in 1906-07. *Three hours, second semester.*

5. *Growth and Administration of National Systems in Europe*, with special attention to secondary and higher education. Offered in 1905-06. *Three hours, first semester.*

6. *Growth and Administration of the National System of America*, with special attention to secondary and higher education. Offered in 1905-06. *Three hours, second semester.*

7. *School Hygiene*.—A digest of information on the subjects of lighting, ventilation, heating, school furniture, nervous disorders produced by school hygiene of eye, ear, vocal organs, spinal curvature and infectious diseases. Offered in 1906-7. *Two hours, first semester.*

8. *The Elementary School Curriculum*.—History of the course of study in the modern systems of elementary education. An advanced intensive course. Offered in 1906-7. *Two hours, second semester.*

9. *Education Club*.—Reading of contemporary literature and discussion of current topics. *One hour, both semesters.*

## PHYSICAL EDUCATION

Mr. Burden

Physical education is treated as an important part of college work. Two years in the gymnasium classes are required, for which two credits are given. The University gymnasium is fitted with the most important gymnastic apparatus, such as chest weights, rowing machine, intercostal machine, traveling parallels, rope, ladder, long horse, flying rings, Swedish stall-bar, ladder; wet spirometer, manometer, dynamometer, for chest, back, and legs, and instruments for taking physical measurements.

The main hall is forty by eighty-five feet, with a twenty-five foot ceiling. On the same floor is the office of the director, and a room for anthropometry; there is also a gallery for spectators in the west end. The annex contains dressing rooms, lockers, sponge and shower baths, and boiler room. Students can have the use of a private locker for a fee of one dollar per year. A deposit of fifty cents

is required for the key, to be paid to the Director of the Gymnasium.

The department is conducted upon strictly scientific principles. Dr. Seaver's chart system is used, showing the relation of the individual in size, strength, symmetry, and development to the normal man of the same age. Its aim is both hygienic and educative. It attempts to aid functions and develop form as well as to correct undeveloped and deformed parts, and supply recreation. It also aims especially to assist the student toward perfect nervous control, and by exercise of skill and precision to train nerve centers and muscles to act quickly and accurately in response to the will; and to produce mental and moral self-control. General athletics train men to meet the emergencies of life by giving them readiness of resource, quickness of thought and action, and courage and good temper under difficulties.

Reasonable effort is made to encourage outdoor sports, and the director devotes a considerable time when the season is suitable to directing outdoor exercises, such as golf, tennis, and athletics of all kinds.

The students maintain an athletic club which encourages outdoor athletics, and are permitted by the Faculty to participate in intercollegiate sports. In addition to the regular class drills, a certain part of which consists of training in athletic sports, the University is represented by a football eleven, a baseball nine, a track athletic team, a tennis club, a golf club, and a basketball team. Other teams beside these are formed to give the University teams practice, and to give athletic practice to as many students as possible.

Women are admitted to separate classes in physical education under the same condition as men.

Physical examinations are free of charge, and the director will be ready to examine students at any convenient time. Students may take the physical examinations and have their exercises prescribed, or may enter one of the regular classes.

## PHYSICS

Professor Friedel

Assistant Professor Boynton

Mr. Jackson

Students offering Physics as a matriculation subject and wishing

to pursue the subject in the University are ordinarily advised to take Course 1, so as to be thoroughly prepared for succeeding courses. In cases where the preparatory work has been exceptionally strong, the student may be excused from a part or the whole of Course 1, or even admitted directly to Courses 2 and 3.

Engineering students are urged to make their work in Physics as thorough and complete as possible. They should complete Course 1 by the end of the Freshman year, and take Courses 2 and 3 in the Sophomore year. It is very desirable that they should offer for matriculation the full equivalent of Course 1. Prospective teachers of science should include in their selection of studies at least Courses 1, 2, and 3. The department is unwilling to recommend any person as qualified to teach Physics in the High Schools who has less than that amount of preparation.

No credit is given for less than the full work of a course, except that when a student is excused from a part of Course 1 credit is given for the amount of work actually done in the University. Records given for the first half of a course continued through the year are understood to be provisional only, and conditioned upon the completion of the course.

Credits toward a degree are given only for work actually done at the University or at some other institution of like rank, or upon examination.

A fee of five dollars is charged for each laboratory course.

#### GENERAL COURSES

1. *Elementary Physics*.—A general non-mathematical course. An acquaintance with Elementary Algebra and Plane Geometry is a condition for entering the course. A knowledge of the notation of Trigonometry will be found exceedingly helpful. Open to all qualified students. This course or its equivalent must be completed before undertaking any other course in the department. Four recitations and one laboratory period.

*Five hours, both semesters.*

2. *General Physics*.—Open to those who have completed Elementary Physics and Trigonometry. This course and the following are required in the Sophomore year in the Engineering Courses, and are recommended to intending teachers of science.

*Four hours, both semesters.*

3. *Physical Measurements*.—A general laboratory course designed to accompany Course 2, having the same prerequisites.

*One hour, both semesters.*

#### ADVANCED COURSES

4. *Analytical Mechanics*.—Also announced as Mathematics 13, and as Mechanics 1. Prerequisite, Differential and Integral Calculus. Required of Juniors in the Engineering Courses.

*Three hours, both semesters.*

5. *Mathematical Theory of Electricity and Magnetism*.—Prerequisite, Physics 2, Mathematics 6, and Differential Equations. An introduction to the more mathematical methods of presentation, especially intended for students of Electrical Engineering, but adapted to the needs of those who wish to pursue the subject farther. Required of Seniors in the course in Electrical Engineering.

*Four hours, both semesters.*

6. *Electrical Measurements*.—The calibration of standard types of measuring instruments, the preparation and testing of standards of resistance, E. M. F., inductance and capacity, and the use of the potentiometer and dynamometer. Open to students who have completed Courses 2 and 3. The Calculus is helpful. Required of Juniors in the course in Electrical Engineering.

*Two hours, both semesters.*

7. *Thermodynamics*.—Also announced as the first half of Mechanical and Electrical Engineering 3. Prerequisites, Physics 2, Mathematics 6. A course on the theory of heat as applied to ideal gases, saturated vapors, and other simple types of substances, introductory to the study of the steam engine. Intended primarily for and required of all Engineering students, but open to all qualified students. Especially recommended to students specializing in Physics or Physical Chemistry. May be followed by the course on Steam Engine, or by appropriate courses in Physics or Chemistry.

*Three hours, first semester.*

8. *Molecular Physics*.—An optional continuation of Course 7, including the Kinetic theory of gases and liquids; the deduction and further discussion of van der Waals' equation, and the theoretical aspects of the theory of Solutions.

*Three hours, second semester.*

9. *Theory of Light*.—Lectures with experimental illustration. Problems relating to the theory of optical instruments, treated by the methods of geometrical Optics and of the wave theory. Prerequisites, Physics 2, Mathematics 6.

*Three hours, first semester.*

10. *Harmonic Motion*.—The analytical treatment of wave motions with applications to sound, light, and electricity. Prerequisites, Physics 2, Mathematics 6, and at least one semester of Analytical

Mechanics. Can be taken as an alternative continuation of the Analytical Mechanics.  
*Three hours, second semester.*

11. *Advanced Undergraduate Laboratory Work.*—Open only to those who have completed at least the first half of Course 3. Work and credits to be arranged with the instructor.

#### PRIMARILY FOR GRADUATES

12. *Advanced Mathematical Physics*—Lectures and assigned readings. The topics treated will be varied from year to year, to suit the needs of students.  
*Hours to be arranged.*

13. *Advanced Laboratory and Research.*—Qualified students will have all the facilities of the laboratories placed at their disposal, and will receive the advice and assistance of the department.  
*Hours to be arranged.*

14. *Seminary.*—Conferences at stated times on assigned topics and current periodical literature.

#### EQUIPMENT

The physical lecture room has a seating capacity of about sixty students. The lecture table is supplied with gas and water cocks, and electrodes connected at will with the University electric light plant or with the storage battery. An arc light stereopticon can be used for projection.

The general physical laboratory consists of three rooms on the same floor. These rooms are supplied with gas and water connections, and with electrodes capable of furnishing as high as seventy-five amperes. A basement room provided with substantial masonry piers is used for advanced work and for experiments requiring great stability.

#### PSYCHOLOGY

Professor Hawthorne

1. *Elementary General Psychology.*—Lectures, discussions. Text-book: Titchener's Primer of Psychology. Open to Freshmen.  
*Three hours, both semesters.*

2. *Introductory Physiological and Experimental Psychology.*—Sensation, Attention, and Perception. Lectures, discussions, laboratory work. Text-book: Ladd's Physiological Psychology.  
*Three hours, both semesters.*

3. *Logic.*—Deductive and Inductive. Elementary, advanced, and applied. Lectures, reading, and discussions. Text-book: Creighton's Introduction to Logic. *Two hours, both semesters.*

#### FOR GRADUATES AND ADVANCED UNDERGRADUATES

The following courses are arranged for alternate years, to meet the requirements of those who have completed the course in colleges or universities, and who wish to pursue the subject still further.

4. *Abnormal and Pathological Psychology.*—This course of lectures is designed to discuss especially the physiological and mental conditions of sleep, dreams, and hypnotic, somnambulistic, and other allied states. The theory of illusions and hallucinations will be treated with considerable detail. *Three hours, both semesters.*

5. *Applied Psychology.*—Application of modern psychological principles to educational subjects; outlines of the psychology of touch; its use in education; motor abilities; accuracy of movement; fundamental principles of writing and drawing; sight, color teaching; space, form teaching; drawing. *Three hours, both semesters.*

6. *Research Work in Psychology.*—The object of this course is such training in accurate introspection, observation, experimenting, and the art of research as is desirable for the general psychologist. *Three hours, both semesters.*

7. *Diseases of the Mind and Nervous System.*—This course will be illustrated by models of the brain and other parts of the nervous system; insanity and kindred subjects will be studied in connection with topical lessons. *Three hours, both semesters.*

8. *Comparative Psychology.*—This course will aim to trace the development of intelligence as running parallel to the development of the nervous system from the lowest forms upward. It will cover the ground of animal psychology, considering it with special reference to the problems of human psychology, so far as these can be stated in terms of the life of lower forms. It will include also a review of the comparative psychology of races as found in their languages and customs. On the mythological side, the logic of the theories of education will be discussed and the relation of philosophy to the biological sciences determined. Lectures, recitations, discussions, reading. Wundt's Human and Animal Psychology, works of various authors, Romanes, Lloyd Morgan. *Three hours, both semesters.*

9. *Aesthetics.*—The object of this course is to review the his-

tory of the thought on the subject of the beautiful; to give a philosophical account of the foundations upon which the arts rest; and to study scientific art theory in its relations to general philosophical system. Bancroft's History of Aesthetics, Marshall's Pain, Pleasure, and Aesthetics, and other works will be read in connection with the course.

*Three hours, both semesters.*

#### EQUIPMENT

The Psychological Laboratory occupies a large room in McClure Hall for lectures and class demonstrations, and for laboratory experiments, and original research work. There is also an additional small room for storing apparatus. The room is favorably located for experimental work—on the north side of the building, in the second story, having a steady light, and away from noise and interruption.

The laboratory, which is one of the few west of the Mississippi river; has a considerable store of the more simple apparatus, which is being added to by purchase and by manufacture in the shop of the University. Among the pieces of apparatus in use are the following: Revolving drum for testing reacting time, time of fatigue; electromagnetic fork and stand; time marker with Deprez signal for sine curves; spark coil; telegraph key; graphic recorder for nerve action; steadiness gauge for determining steadiness and attention, and used in cross education; aesthesiometer for finding sensory circles in skin space; olfactometer; Galton whistle, for determining the highest audible pitch up to 90,000 vibrations per second; tone tester; audiometer, apparatus for color tests; apparatus in pseudoptics, etc. Additional apparatus of latest make purchased as needed.

## THE SCHOOL OF MUSIC

### FACULTY

The Faculty of each school or college consists of the President of the University and the resident professors, assistant professors, and lecturers, giving instruction.

### INSTRUCTION

Instruction is given by private lessons or in classes of two or three. While the class instruction is valuable, the best results are obtained from private lessons. These lessons are forty-five minutes in length, and, where it is at all possible, a student should plan to take at least two lessons per week.

### COURSES

The courses are arranged so that the student may become an independent performer and a thorough musician. There are three lines of major work, piano, voice, and violin. These courses are to be supplemented by work in theory, harmony, counterpoint, and composition. Courses are offered also in elocution and public speaking.

### ENTRANCE

Although students will find it to their advantage to enter at the beginning of the year, they may enter at any time, and tuition will be charged from the time of entrance.

### GRADUATION

Graduation depends upon proficiency and not upon length of the term of a student's attendance. Students not desiring to pursue the full courses may take special courses in any subject offered. The regular work outlined covers four years.

### CATALOGUE

Those desiring full information in regard to the School of Music will address Professor Irving M. Glen, Dean of the School of Music, Eugene. A catalogue will be sent on application.

### HISTORY OF MUSIC

1. From the age of Primitive man to the time of Palestrina (1524 A. D.), tracing the evolution of music as an art in the various

countries. This is given in a course of lectures once a week, and is open to all University (college) students as an elective course for one credit, and also to all those studying in the musical department.

2. From the time of Palestrina to the present. Text book: Ritter or Mathews, with lectures and extracts from the works of different composers. Elective course. Open to all those who have taken "Primitive Music." One credit.

### THEORY OF HARMONY

#### FIRST YEAR

Ear Training—Notation—Tonality—Intervals—Time—Study—Metre—Rhythm—Chords—Original Melodies.

#### SECOND YEAR

Combination of Connection of Chords—Concords—Inversions—Discords—Dominant Sevenths—Harmonizing of Melodies and Basses, given and original.

#### THIRD YEAR

Secondary Sevenths, Ninths, Altered and Mixed Chorus—Modulation—Harmonizing of Melodies and Basses (continued)—Inharmonic Intervals—Organ Point—Suspension—Neighboring and Passing Notes—Figuration—Embellished Melody and Harmony.

#### FOURTH YEAR

Single Counterpoint—Five Species, in two, three and four parts. Double, triple and quadruple Counterpoint.

### OTHER INFORMATION

There are three departments in the School of Music—Piano, Voice, and Violin. These departments are in charge of competent and well known artists, and offer courses leading to a diploma or a degree, according to the amount of work done.

Rates of instruction average \$4.00 per month for one 45 minute lesson per week. All fees are payable invariably in advance to the Dean.

### MUSICAL SOCIETIES

The Eugene Oratorio Society, organized in 1896, has each winter studied one or more of the standard oratorios, including, "The Creation," "St. Paul," "The Messiah," "The Redemption," "Elijah," "Stabat Mater," and "Hymn of Praise."

## THE SCHOOL OF MEDICINE

### FACULTY

The Faculty of each school or college consists of the President of the University and the resident professors, assistant professors, and lecturers, giving instruction.

### ORGANIZATION

The School of Medicine of the University of Oregon, which was established in 1887, in 1895 became a graded school occupying the advanced rank of those requiring from their students as a condition of graduation, attendance upon four full courses of lectures in a regular medical college. The result of this advance, as shown in our work under the four course system, has proved eminently satisfactory.

The course in the School of Medicine leads to the degree of Doctor of Medicine. It covers a period of four years of collegiate study, each year representing seven and one-half months in actual residence. The Faculty has recently adopted radical changes in curriculum and requirements for admission and time credits in accordance with changes made by the A. A. M. C. in April, 1905, particulars of which will appear in the separate announcement of the School of Medicine.

The studies are graded throughout the four years, and this grading is arranged with careful reference to the relation which the subjects naturally bear to each other.

The work of the first two years deals with fundamental subjects chiefly, while that of the last two years includes the more practical branches with their associated specialties, and the application of scientific or laboratory methods to clinical experience.

### REQUIREMENTS FOR ENTRANCE

This school is a member of the Association of American Medical Colleges, and will conform to its requirements, as set forth in the constitution of the Association.

#### EXTRACT FROM ARTICLE III

- (a) A bachelor's degree from an approved college or university.
- (b) A diploma from an accredited High School, Normal School or Academy requiring for admission evidence of the completion of an eight year course in primary and intermediate grades,

and for graduation not less than four years of study embracing not less than two years (four points) of foreign language, of which one must be Latin, two years (four points) of mathematics, two years (four points) of English, one year (two points) of history, two years (four points) of laboratory science, and six years (twelve points) of further credit in language, literature, history, or science.\*

(c) (Substantially) An examination to cover the equivalent of above, said certificate to be from reputable instructors recognized by the superintendent of public instruction of the State of Oregon or City of Portland (in the case of this school.)

A student may be allowed to enter on his medical work conditioned in not more than six points, and these conditions must be removed by satisfactory examinations before he will be allowed to enter on the second year of his medical course.

Credit may be given to the holder of a bachelor's degree from an approved college or university for any work in the medical branches he has successfully completed, if equivalent to corresponding work in the medical curriculum. Time credit of not to exceed one year may be given in this case provided such student has had at least forty hours in Physics, one hundred and forty-four hours in Chemistry, twenty-four hours in Osteology, two hundred and ninety-two hours in Human or Comparative Anatomy, one hundred and twenty-four hours in Histology, eighty-five hours in Embryology, one hundred and forty-five hours in Physiology, and forty-six hours in Materia Medica (Botany).

### †COURSE OF STUDY

#### FIRST YEAR

Anatomy, with dissections; General Chemistry; Materia Medica and Pharmacy; Physiology; Histology.

Examinations at the end of the year in Osteology and Syndes-mology, Principles of Chemistry, Elementary Materia Medica, Physiology (Prox. Principles and the blood), Histology (final).

#### SECOND YEAR

Anatomy, with dissections, finished; Physiology, finished; Chemistry, with laboratory work, finished; Materia Medica and Thera-

(\*One point in any subject in a high school or academic course demands not less than five periods per week of forty-five minutes each for eighteen weeks.)

†Course of study is in process of modification by increase of lectures to the number of about 800 for entire course. Particulars will appear in separate announcement of School of Medicine, to appear during June 1905.

peutics, finished; Microscopy; Hygiene; Obstetrics (Pelvic Anatomy, Embryology, and Normal Labor); Physical Diagnosis; Clinical Medicine.

Examinations at the end of the year: Anatomy (final); Physiology (final); Chemistry (final); Materia Medica and Therapeutics (final); Hygiene; Obstetrics; (Pelvic Anatomy, Embryology, and Normal Labor).

#### THIRD YEAR

Theory and Practice of Medicine, General Therapeutics, Principles and Practice of Surgery and Bandaging. Pathology, with laboratory work; Paediatrics; Dermatology; Gynaecology; Genito-Urinary diseases, Physical Diagnosis; Ophthalmology and Otology; Obstetrics; Clinics, all.

Examinations in Principles of Medicine; Principles of Surgery; Pathology (final); Gynaecology; Physical Diagnosis; Obstetrics (final); Dermatology; Diseases of Genito-Urinary Organs; Ophthalmology and Otology.

#### FOURTH YEAR

Medical Jurisprudence; Theory and Practice of Medicine; Principles and Practice of Surgery; Military and Operative Surgery; Clinics, all; Gynaecology; Genito-Urinary Diseases; Ophthalmology and Otology; Rhinology and Laryngology; Bacteriology, with laboratory work; Paediatrics; Insanity and Diseases of the Nervous System.

Examinations. Final in above.

### COURSES OF INSTRUCTION

*Surgery.*—Surgery in all its various branches will be taught during the third and fourth years, as per outline, by means of systematic lectures and operations in the presence of the class. In addition there will be demonstrations of all the details of bandaging, dressings, and the application of the various forms of apparatus used in the treatment of diseases, accidents and deformities, including fractures and dislocations. Members of the graduating class will have opportunities for practice in minor surgery, bandaging, etc., and subjects will be furnished for repeating all the usual surgical operations on the cadaver.

Professor Holt C. Wilson will deliver didactic lectures on Principles and Practice of Surgery, and clinics in Surgery will also be given by Professor Wm. Jones, Dr. Jas. C. Zan and others. Professor



George F. Wilson will deliver a practical course upon operative and military surgery, and will give special attention to clinics on fractures and fracture apparatus.

*Chemistry and Toxicology.*—During the first and second years, Professor Binswanger will treat these subjects with special attention to the fundamental principles of chemistry, medical and physiologic chemistry, physics and poisons.

The lectures will be fully illustrated by experiments, and a well-equipped chemical laboratory will aid materially in the practical instruction of students in urinary analysis and other chemical examinations. A course of practical laboratory work by students is an essential of the requirements.

*Theory and Practice of Medicine.*—During the third and fourth years, as per outline, Professor MacKenzie will bring into prominence, in this branch, the essentials of theoretical and practical medicine, dwelling more particularly upon those subjects which will be likely to prove of most substantial use to the young practitioner, while not neglecting theoretical essentials. Teaching in this branch will be illustrated by clinics at the college and hospitals. Professor Wells will deliver lectures upon diseases of children; Professor Josephi upon diseases of the nervous system; Dr. Wheeler upon hygiene; and Dr. Geary upon physical diagnosis. Professors Bell and MacKenzie will hold medical clinics at St. Vincent's Hospital, and Professor H. C. Wilson at Good Samaritan Hospital.

*Anatomy.*—Professor Labbe will give instruction in General and Descriptive Anatomy. This subject will be considered during first and second years and finished at the end of the second year. These lectures will be illustrated by actual dissection, charts and drawings, and special attention will be given to the surgical relations of the subject. During the first year, a course in Osteology and Syndes-mology will be completed.

Special arrangements have been made for storing dissection material, so that no shortage need be apprehended. A sufficient supply for the beginning of the course will be on hand and utilized as soon as desirable. The Demonstrator will be on duty daily (except Saturday) as per schedule of lectures, as special attention will be given to this branch during first and second years.

*Materia Medica and Therapeutics.*—Professor Ralph C. Matson will direct attention during first and second years to remedial agents, and to the actions of medicine proper, with particular reference to their practical application. Specimens of the various medicines will

be exhibited to the class, and attention given to electro-therapeutics.

*Bacteriology.*—Dr. A. E. Mackay will deliver practical lectures on Bacteriology to fourth year students.

The Bacteriological Laboratory is supplied with all the necessary apparatus, including incubators and sterilizers with thermostats and thermometers for a full course.

Each student receives instruction in bacteriological technique, including best methods of examining sputum, staining, etc., and a number of different bacteria will be cultivated and studied, such as typhoid, diphtheria, cholera, etc.

*Microscopy, Histology, and Pathology.*—Dr. Ray W. Matson will deliver a practical course on the use of the microscope and Histology. Dr. R. C. Yenney will deliver lectures and supervise laboratory work in Pathology, both general and special. This will include the study of microscopical examination of pus, blood, urine, etc.

To illustrate the lectures on Histology and Pathology, a course will be given on section cutting, staining, mounting, etc. Histology will be considered during the first year, and Pathology by second and third year students. This course will be thoroughly practical and will be taught almost exclusively by laboratory methods.

*Obstetrics.*—This subject will be taught during second and third years as per outline. Professor Josephi will illustrate the lectures upon this branch by charts, diagrams, specimens, etc. All the principal obstetric operations will be demonstrated on the manikin in presence of the class, and members of the graduating classes will be required to perform certain operations and instrumental applications on the manikin before the class.

Opportunities for clinical work will be furnished to the graduating class, and labor cases will be entrusted to the individual members under proper direction, thus insuring an eminently practical knowledge of this important branch. Professor Josephi will conduct the clinical work in midwifery at Good Samaritan Hospital.

*Gynecology.*—This course will be taught didactically during third and fourth years by Professor Tucker. Professor A. J. Giesy will give clinics in gynecology once each week at Good Samaritan Hospital, and Dr. Wm. H. Skene at St. Vincent's Hospital. Practical instruction will be given in the use of the speculum and other instruments for the diagnosis and treatment of diseases peculiar to women, and every opportunity given for students to familiarize themselves with their use and application.

*Physiology.*—Lectures upon this subject will be delivered, and laboratory work conducted during first and second years by Professor George B. Story, and will be illustrated by demonstrations which will occupy a prominent place.

*Diseases of the Nervous System.*—Lectures on nervous diseases, including insanity, will be delivered by Professor Josephi during fourth year. In this course special nervous diseases not included in the lectures of others will be dwelt upon.

*Ophthalmology, Otolaryngology, Rhinology, and Laryngology.*—Professor Nunn will deliver lectures upon these subjects to third and fourth-year students and will give special attention to methods of diagnosis and treatment of the diseases of the parts involved. Practical clinical training in the use of the ophthalmoscope, specula, laryngoscope, and instruments for local applications, will be given. Clinics in Good Samaritan and county Hospitals and outdoor service.

*Genito-Urinary Diseases.*—Professor A. E. Mackay will, in addition to clinics on surgery at the Good Samaritan Hospital, deliver didactic and clinical lectures on diseases of the genito-urinary organs during third and fourth years. Lectures will be illustrated by drawings, models, etc., and numerous cases at the bedsides in the hospital. Practical instruction in the use of instruments will be given.

*Pædiatrics.*—Professor G. M. Wells will bring before the students during the third and fourth years a wide range of subjects in connection with this chair. From the first hour of life the infant requires a special study. Its diet and environments are of paramount importance in the first few years of life. Then the great question of schooling and school hygiene are now coming to the front as never before. The alarming increase of myopia among the young appeals to this chair for prevention as no other. The relation of pædiatrics to the several branches of scientific medicine will be emphasized.

The surgery of infancy and childhood, manifestly so unique, will receive its share of attention.

*Dermatology.*—Dr. J. A. Gilbert will deliver lectures on Dermatology during third year.

*Medical Jurisprudence.*—Mr. Wm. T. Brewster will deliver lectures embracing the more essential points of this interesting branch of medicine during the fourth year.

*Physical Diagnosis.*—In addition to the general instruction on this important subject, Dr. Geary will hold clinics at the college and county hospitals for special work in this branch.

*Hygiene.*—Dr. Wheeler will deliver a course on Hygiene during the year. The subject will be treated from a practical standpoint.

*Lectures.*—All students are privileged to attend all didactic lectures, but only such as are laid down in the schedule are compulsory.

### HOSPITAL CLINICS

Instruction in medicine and surgery, to be efficient, must combine didactic and clinical teaching, and no opportunities for the last named class of studies are in any sense equal to those offered by the wards of a general hospital.

Our connections, through members of the faculty, with St. Vincent's and Good Samaritan and Multnomah County Hospitals is such as to afford the most enlarged advantages of clinical instruction in the wards of those institutions, members of the medical staff of each being also members of the college faculty.

St. Vincent's new hospital is located only a few blocks from the college building, on a tract of five acres. The portion now completed and occupied is 260 feet long, an average of 60 feet wide, and is six stories in height, including a basement. It contains 350 beds and is admirably fitted in other respects with the most modern furnishings and appliances.

Good Samaritan Hospital is delightfully located near the foot of the western hills, contains 125 beds, and is rich in clinical material of all kinds. These two hospitals afford opportunities to the students of this college for clinical work and instruction unequalled anywhere in the Northwest.

Their close proximity to the college clusters the buildings for both didactic and clinical instruction, so that the necessity for the student to travel long distances in order to properly carry on his work is overcome, and thus much valuable time is saved to him.

Clinics are held every lecture day during the session. Opportunities are given students to make diagnosis of disease and prescribe treatment therefor; and operations of endless variety are performed (in the presence of the class), according to the most advanced methods of modern surgery.

Special attention will be given to instructing the student in methods of examination for purposes of diagnosis of both medical and surgical cases and the use of appropriate instruments used for that purpose. In addition to clinics formerly given, a "Clinic Conference" in both medicine and surgery has been established, which has proved very beneficial to the student.

Arrangements have been perfected for the obstetrical clinics. Each Senior student will be given an opportunity to attend and conduct, under proper supervision, cases of midwifery. This affords undergraduates a practical knowledge of midwifery, which must prove of great value in their future professional work.

The hospitals mentioned, which have been already established and in successful operation for many years, present most excellent and unequalled facilities for the study of disease at the bedside, and this branch of instruction will receive the very careful attention of the staff of clinical lecturers connected with the college.

Portland's geographical position is such that its hospitals receive patients from the surrounding territory over a large area of country, and the types of both medical and surgical diseases met with are as various as those met with in larger cities.

The Faculty, while not disparaging the value of didactic lectures, makes the system of clinical instruction occupy a prominent place in the curriculum, and it will be the aim of its members to make the instruction in all departments as complete and efficient as possible.

In addition to didactic and clinical lectures, instruction will be given by practical work in the dissecting rooms and laboratories, and by repeated oral examinations.

The biological laboratory has been greatly enlarged and new instruments added.

### HOSPITAL APPOINTMENTS

Arrangements have been perfected by which the college has in its gift two appointments each year of house surgeons to the Good Samaritan Hospital. Each appointment is for one year, during which time board and lodging will be furnished free at the hospital.

An excellent opportunity is thus afforded to the graduate to acquire in the wards of a well equipped hospital, without any expense, a practical knowledge by clinical experience and actual practice. The house surgeons of St. Vincent's Hospital are also supplied from the alumni of the college.

### LIBRARY

A medical library, known as "The R. B. Wilson Library," has been established at the college building. The nucleus for this is a gift of the medical libraries of the late Dr. R. B. Wilson, and Dr. Rodney Glisan. This has been added to by gift from the Federal

Government and will be further enlarged from time to time. Students will be allowed the use of books (not to be removed from the building) under such rules as the college may prescribe.

### LOCATION AND EQUIPMENT

The new college building, located near Twenty-third and Lovejoy streets, opposite Good Samaritan Hospital, was completed and occupied during the session of 1892-3. It is a model of convenience, being furnished with all the aids to medical education which modern advancement requires. Laboratories for chemical, histological, pathological, bacteriological, and other work are provided, and arrangements made for special attention to these important practical departments. The laboratory equipment has been doubled; extensive additions made to the apparatus in microscopy, and new instructors added to the Faculty for more extensive and specialized work in histology and pathology. The dissecting room is most conveniently arranged, is light and airy, and is furnished with artificial stone tables of special design, and electric fixtures for artificial illumination.

The building is heated by hot water, lighted by gas and electricity, and provision made for excellent ventilation. The Twenty-third street electric cars pass the location every few minutes. To reach the college by this line take the Washington street car, designated Twenty-third street. St. Vincent's new hospital is only a short distance from the college, and with Good Samaritan Hospital across the street, the arrangement of colleges and hospitals for clinical work is a most convenient one.

### REQUIREMENTS FOR GRADUATION

The candidate for the degree of Doctor of Medicine must be of good, moral character and twenty-one years of age. He must have studied medicine under a regular practitioner four years, including attendance upon lectures, and attended in a regular medical college authorized to confer the degree of M. D., four full courses of lectures, no two of which shall have been delivered within twelve months, (unless admitted to advanced standing as per constitution of the Association of American Medical Colleges), the last of which must have been in this college; and must exhibit his tickets or other adequate evidence of attendance to the Dean of the Faculty. He must present to the Dean satisfactory evidence of having dissected the entire cadaver. He must have attended at least two courses of Dissections and Clinical Instruction. He must present to the Dean satisfactory evidence of time, study, laboratory work, and moral char-

acter. He must have passed successfully the examinations prescribed by the Faculty, and paid all fees due the College.

The degree will not be conferred upon any candidate who absents himself from the public commencement exercises without special permission of the Faculty.

The diploma given to graduates is that of the University of the State of Oregon, duly signed by the President and Secretary of the Board of Regents, as well as by the Medical Faculty.

Women will be admitted to matriculation, instruction, and graduation on the same terms as men.

### EXPENSES

All fees payable in advance.

All students who work in the chemical laboratory will be required to deposit \$3.00 and those in the histological, pathological, or bacteriological laboratory, \$5.00 for breakage. These fees are returnable if no breakage is charged.

To those who enter at the beginning of the first year—

First year: Matriculation.....	\$	5.00
Fee for course.....		130.00
One-quarter examination fee.....		7.50
Second year: Fee for course.....		130.00
One-quarter examination fee.....		7.50
Third year: Fee for course.....		100.00
One-quarter examination fee.....		7.50
Fourth year: Fee for course.....		50.00
One-quarter examination fee.....		7.50

To those entering beginning of second year (not having taken a course in this college)—

Second year: Matriculation.....	\$	5.00
Fee for course.....		130.00
One-third examination fee.....		10.00
Third year: Fee for course.....		130.00
One-third examination fee.....		10.00
Fourth year: Fee for course.....		75.00
One-third examination fee.....		10.00

To those who enter beginning of third year (not having taken a course in this college)—

Third year: Matriculation.....	\$	5.00
Fee for course.....		130.00
One-half examination fee.....		15.00

Fourth year: Fee for course.....	100.00
One-half examination fee.....	15.00

To those who enter beginning of the fourth year (not having taken a course in this college)—

Fourth year: Matriculation.....	\$	5.00
Fee for course.....		120.00
Examination.....		30.00

One full scholarship and two half scholarships are open to graduates of the University of Oregon with the degree A. B. or B. S., of not more than two years' standing. Particulars will be furnished upon application to either Registrar, University of Oregon, Eugene, or Professor Josephi, Portland.

### BOARDING

Good board with rooms and all the usual accommodations can be obtained in the vicinity of the colleges at rates varying from \$4.00 to \$6.00 per week.

### MISCELLANEOUS

Students are requested to be in attendance at the commencement of the session, so that they may not lose the benefit of knowledge to be derived from the opening lectures.

Students will matriculate at the office of the Dean, Professor S. E. Josephi, Dekum Building, Third and Washington streets, Portland, Or. For further particulars address

PROF. S. E. JOSEPHI, M. D.,  
Room 610, Dekum Bldg., Third and Washington Sts., Portland, Or.

## THE SCHOOL OF LAW

### FACULTY

The Faculty of each school or college consists of the President of the University and the resident professors, assistant professors, lecturers and instructors giving instruction.

### LOCATION

The School of Law is held in the City of Portland, which offers to the student of law many advantages not possessed by other cities. The District and Circuit Court of the United States hold regular sessions, the four departments of the Circuit Court of the State of Oregon for the Fourth Judicial District, the County Court of Multnomah County, and the Municipal and Justices' Courts are constantly in session, where questions touching every branch of the law are daily heard and determined.

The lectures are delivered at 7:15 p. m. in the Chamber of Commerce Building, in the center of the City of Portland. Each lecture with the accompanying recitation lasts about one hour. Lectures in the Junior year are on Tuesdays, Thursdays and Saturdays; in the Senior year, on Mondays, Wednesdays, Fridays, and Saturdays. The seniors assemble at 8:30 p. m. on Saturdays. The twenty-first session opens Monday, September 18, 1905.

The holding of the lectures and other exercises in the evening enables bank and government clerks and other persons engaged during the day to avail themselves of the privileges of the school.

### REQUIREMENTS FOR ADMISSION

All persons, irrespective of sex, are allowed to matriculate in the Law School. Applicants for admission to the first year class must be at least eighteen years of age, and to the second year class nineteen years of age.

Graduates of universities or colleges, and students who have completed an academical or high school course, are admitted to the Department without examination as to preliminary requirements, and may become candidates for the degree of Bachelor of Laws. In order to be entitled to this privilege, however, the applicant should present to the Dean of the Department evidence that he comes within some one of the classes named, which should be in the form of a diploma or certificate, or a certified copy thereof.

## COURSE OF INSTRUCTION

The course of instruction extends through a period of two years of nine months each. It is the intention to extend the course in the near future to three years.

The aim of this school is to give its students as thorough and practical an education in the principles of the law as the length of the course will permit, and to prepare them for practice in the courts of any state, but particularly in those of Oregon. Recognizing the advantages and disadvantages of the exclusive use of either the lecture or the case method, the Faculty endeavors so to combine lectures with the use of text-books, and especially with the careful study of illustrative cases, as most thoroughly to qualify the student for the active work of his profession.

The lectures are delivered in the evening, and, so far as practicable, students who put themselves into timely communication with the Dean are connected with the best law offices of the city, where they have an opportunity of familiarizing themselves with the conduct of business and the practical duties of the profession.

The thoroughness of the instruction imparted is sufficiently attested by the fact that of the two hundred and sixty-five graduates of the Department of Law none have thus far failed to pass the state bar examination. The more difficult test of actual practice has been met with almost equal success by the graduates, an unusual number of whom are admitted to be leaders at the junior bar and have held important official positions in various parts of Oregon.

The following is a statement of the subjects upon which instruction is given, with the time devoted to each subject:

### JUNIOR YEAR

*Elementary Law.*—Smith's Elementary Law. Fifteen hours on Mondays, Wednesdays, and Fridays, from September 20, 1905, to October 23, 1905, inclusive. Mr. Gantenbein.

*Criminal Law.*—Clark's Criminal Law. Criminal Code of Oregon. Twenty hours. Mondays, Wednesdays, and Fridays, from October 25, 1905, to December 8, 1905, inclusive. Mr. Gantenbein.

*Contracts.*—Parsons on Contracts. General Laws of Oregon. Forty lectures on Mondays, Wednesdays, and Fridays, from December 11, 1905, to March 21, 1906, inclusive. Mr. Gantenbein.

*Sales.*—Tiffany on the Law of Sales. General Laws of Oregon. Twelve hours. Mondays, Wednesdays, and Fridays, from March 23, 1906, to April 18, 1906, inclusive. Mr. Gantenbein.

*Negotiable Instruments.*—Selover's Negotiable Instruments Law. Bellinger and Cotton's Codes of Oregon, Sections 4403-4594, inclusive. Ten hours on Mondays, Wednesdays, and Fridays, from April 20, 1906, to May 11, 1906, inclusive. Mr. Gantenbein.

**SENIOR YEAR**

*Pleading and Practice.*—Gould on Pleading. Bellinger and Cotton's Codes of Oregon, Titles I-V, inclusive, and Titles VII and VIII. Twenty lectures on Tuesdays and Saturdays, from September 19, 1905, to November 25, 1905, inclusive. Judge Northup.

*Torts.*—Bigelow on Torts. Twenty hours. Mondays and Fridays, from September 22, 1905, to November 27, 1905, inclusive. Mr. Gantenbein.

*Equity Jurisprudence.*—Petter or Bispham on Equity, Bellinger and Cotton's Codes of Oregon, Title VI. Twenty lectures. Tuesdays and Saturdays, from November 28, 1905, to February 10, 1906, inclusive. Judge Sears.

*Evidence.*—Jones on the Law of Evidence. Bellinger and Cotton's Codes of Oregon, Titles IX-XI, inclusive. Twenty-one lectures on Mondays and Fridays, from December 1, 1905, to February 19, 1906, inclusive. Mr. Gantenbein.

*Constitutional Law.*—Black's Constitutional Law. Twelve lectures on Tuesdays and Saturdays, from February 13, 1906, to March 24, 1906, inclusive. Judge Gilbert.

*Corporations.*—Bellinger and Cotton's Codes of Oregon, Title XLI. Ten lectures. Tuesdays and Saturdays, from March 27, 1906, to April 28, 1906, inclusive. Mr. Chamberlain.

*Real Property.*—Tiedeman on Real Property. General Laws of Oregon. Thirty-three hours. Mondays and Fridays, from February 23, 1906, to April 27, 1906, inclusive, and Mondays, Tuesdays, Fridays, and Saturdays, from April 30, 1906, to May 22, 1906, inclusive. Mr. Gantenbein.

**LIBRARY**

The only books with which students are required to provide themselves are those used for purposes of text-book instruction. Parsons on contracts is used as a text-book for the reason that, in addition to the general law of contracts, it contains the principles of law governing the various topics, such as agency, partnership, sales, guaranty and surety, bailments, innkeepers, carriers, patents, copy-

rights, trademarks, shipping, insurance, domestic relations, etc., thus obviating the necessity of purchasing text-books on each of these subjects of the law contracts.

Students in the Law School are allowed to use the Multnomah Law Library in the County Court House, free of charge. This library contains the reports of every state in the Union, the reports of the federal courts, and numerous English reports, together with an extensive collection of treatises and text-books, both English and American, and copies of the statutes of the several states and of the United States. New reports, as they are issued, are added, as are new text-books and treatises of merit.

**TEXT-BOOKS**

The books required for each student will cost, for new copies of the latest edition, as follows:

**JUNIOR YEAR**

Smith's Elementary Law.....	\$ 3.50
Clark's Criminal Law.....	3.50
Parson's on Contracts (3 Vol.).....	16.00
Tiffany on Sales.....	3.50
Selover's The Negotiable Instruments Law.....	3.00
	<hr/>
	\$29.50

**SENIOR YEAR**

Bigelow on Torts.....	\$ 3.00
Gould on Pleading.....	4.00
Tiedeman on Real Property.....	5.00
Petter on Equity.....	3.50
Black's Constitutional Law.....	3.50
Jones on the Law of Evidence (3 Vols.).....	6.00
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	\$25.00

These books will be found very useful in professional practice, and can be borrowed or purchased second hand at about one-half of the cost of new editions.

**DEGREE**

The Degree of Bachelor of Laws will be conferred upon such students as pursue the full course of two years and pass the required written examination. Students who have attended another approved law school for a period equal to one year of the course of this

School of Law, have taken the Senior year's course in this school, and pass a like examination, will also receive the degree of Bachelor of Laws.

The diploma given to graduates is that of the University of Oregon, duly signed by the President of the Board of Regents, the President of the University, and the Dean of the Law Department.

### FEES

The tuition fee is sixty dollars for the Junior year and seventy-five dollars for the Senior year. The tuition is payable at the office of the Dean in equal installments on September 18 and on the first day of December and March. Admission to membership in the classes is not permitted until the fees are paid. Regular attendance is required, and no deduction will be made on account of absence, or for failure to begin at the opening of the year. The final examination fee is ten dollars.

For students taking special courses the fee will be at the rate of one dollar per lecture, payable in advance. Special students may, on application to the Dean, receive an official certificate of attendance, showing the subject or subjects pursued, and the degree of attainment.

The right to change any or all announcements in this catalogue except as to fees, is hereby reserved.

Application for admission and requests for further information will be addressed to  
 C. U. GANTENBEIN, LL. B.,  
 Dean of Law School,  
 Portland, Oregon

## STUDENTS ENROLLED 1904-1905

### GRADUATE SCHOOL

Booth, Dr. Joel C.	Lebanon
Cleaver, Lulu V.	Portland
Converse, Charles W.	Eugene
Hughes, Mary Gilbert	Tampa, Florida
Whittlesey, Walter L.	Portland
Wright, Rev. Ora C.	Eugene

### COLLEGE OF LITERATURE, SCIENCE AND THE ARTS, AND THE COLLEGE OF SCIENCE AND ENGINEERING.

Abbett, Earl R.	Ashland
Abright, Anne P.	South Canon, Colorado
Adams, Alice Cecile	Eugene
Allen, Lawrence R.	Portland
Allison, Rachel M.	White, South Dakota
Anderson, Andrew A.	Astoria
Apperson, Louis G.	Eugene
Arnold, Otis R.	Pendleton
Arnspiger, Olen	Pendleton
Ayers, J. C.	Waterloo
Bacon, Ralph	Gold Hill
Barber, Joseph L.	Portland
Barker, George W.	Astoria
Barber, Wm. H.	Sherwood
Barker, William	Astoria
Bean, Ernest G.	Eugene
Beck, Oscar	The Dalles
Beebe, Allie B.	Eugene
Beebe, Elbert G.	Eugene
Bellman, Lloyd E.	Eugene
Benson, Alice Loretta	Portland
Benson, Caroline	Portland
Berry, Walter M.	Astoria
Bertsch, Ernest J.	Springfield
Billings, George H.	Ashland

Bittner, Omar N.,	Portland
Bond, Paul G.,	Sodaville
Bretherton, Alice G.,	Portland
Brooke, Lloyd W.,	Portland
Brown, Clifford W.,	Salem
Burch, S. Aurelia,	Rickreall
Burdick, L. Antoinette,	Cottage Grove
Cameron, Cora C.,	White Salmon, Washington
Cameron, Ethel E.,	White Salmon
Carroll, Camille,	Eugene
Caufield, Edna J.,	Oregon City
Chapman, Victor,	Eugene
Chandler, William G.,	Marshfield
Clarke, Herbert F.,	Clackamas
Cleaver, Marion G.,	Lebanon
Cleveland, Charles B.,	Astoria
Coffey, Vanda R.,	Eugene
Cole, Homer J.,	Eugene
Conger, Benj.,	Eugene
Connor, Floyd M.,	Sheridan
Cooper, Mabel,	Independence
Crow, Ray D.,	Eugene
Cundiff, Margaret A.,	Albany
Curtis, Martha B.,	Portland
Dale, Mary,	Portland
Daulton, Edna M.,	Oregon City
Davis, Carl H.,	Eugene
Davis, Elsie,	Eugene
Davis, Roy H.,	Eugene
DeBar, Florence,	Eugene
Dill, W. A.,	Portland
Dillard, Frank C.,	Eugene
Dobie, Ella M.,	Portland
Dunbar, Luta E.,	Eugene
Earl, Virgil D.,	Dayton
Eastland, Herbert C.,	Eugene
Eaton, Mabel,	Union
Elliot, Elizabeth,	Eugene
Elton, Albert J.,	The Dalles
Erickson, John O.,	Astoria
Evans, William C.,	Ellison, North Dakota
Fenton, H. B.,	Portland
Foshay, Nellie J.,	Albany

Fountain, Edwin R.,	Klamath Falls
Friesell, Frank M.,	Reno, Nevada
Frost, John F.,	McMinnville
Galloway, Francis V.,	McMinnville
Gardner, Curtis A.,	Portland
Geary, Richard E.,	Portland
Germond, Milton B.,	Drain
Ghormley, James C.,	Portland
Gibson, Foster C.,	Portland
Gittins, Margaret,	Eugene
Glafke, Wm. Harley,	Portland
Goddard, Mary Lela,	Portland
Graham, David,	Portland
Grant, Ruth V.,	Eugene
Gray, Grance W.,	Portland
Gray, Jeanie,	Portland
Gray, Mary Augusta,	Portland
Gray, Rawlin C.,	Eugene
Hadley, Winifred,	Crow
Hair, Zena M.,	Grants Pass
Hamble, Charles B.,	Eugene
Hammack, Roy W.,	Moscow, Wash.
Hammond, Robert B.,	Ashland
Hampton, Harry A.,	Portland
Hardin, Charles E.,	Prineville
Hardin, D. Ernest,	Prineville
Harris, Frank A.,	Baker City
Hathaway, Dick A.,	Portland
Hawthorne, Thomas,	Eugene
Henderson, Louis A.,	Hood River
Hendricks, Norma,	Eugene
Henning, Albert L.,	Iron Ridge, Wis.
Hobbs, Harry H.,	Eugene
Holcomb, Eliot,	Portland
Holmes, Carl J.,	Astoria
Holmes, George,	Astoria
Holmes, Augusta,	Astoria
Holt, Theodore P.,	Eugene
Horn, Marion F.,	Eugene
Howe, Lola,	Eugene
Holmes, Mary L.,	Ashland
Huddleston, Claude M.,	Dayton
Hug, George W.,	Summerville



Huntington, Benjamin	Yoncalla
Jackson, Andrew W.	Bandon
Jackson, Oney G.	Astoria
Jasper, E. D.	La Grande
Johnson, Faith	Creswell
Johnson, Gertrude M.	Drain
Johnson, Loris M.	Eugene
Johnson, Nina B.	Portland
Johnson, Wistar W.	Eugene
Kelly, Roy W.	Oregon City
Kent, Mary E.	Eugene
Kerns, LeRoy	Eugene
Kerr, Alice W.	Eugene
Kerr, Arthur F.	Eugene
Kerron, Seth M.	Portland
Kershaw, H. M.	Grande Ronde
Kestly, Grover J.	Springfield
Kincaid, Webster	Eugene
King, Maude G.	Eugene
Kinsey, Mae D.	Eugene
Koerner, Martha	Oregon City
Kuykendall, Eberle	Eugene
Latourette, John R.	Oregon City
Lauridsen, Laurids	Astoria
Leach, Arthur D.	Portland
Lincoln, Irene	Portland
Lister, Edward S.	Eugene
Lister, Mildred S.	Eugene
Lobdell, George L.	Eugene
Long, Walter	McMinnville
Lowell, Harry	Eugene
Lyster, Lily A.	Gardiner
Macrum, Garfield H.	Portland
Marvin, George F.	Eugene
Mayo, Earl E.	Portland
Mattheus, John F.	Eugene
McAlister, Arthur C.	Eugene
McArthur, Joseph W.	Amboy, Washington
McCallum, Ruth	Eugene
McCarty, Roy D.	Pendleton
McClain, Carl A.	Emerson, Iowa
McClain, Marion F.	Emerson, Iowa
McCornack, Edwin A.	Eugene

McIntire, Walter E.	Ashland
McKinney, Bertha L.	Baker City
McKinney, Helen J.	Baker City
McMurren, Adelle A.	Baker City
McQueen, Stuart A.	Cottage Grove
Mears, Arthur M.	Portland
McGary, Edith Lucy	Eugene
Merryman, Alice Edith	Hillsboro
Merritt, George	Eugene
Miller, Leslie P.	Drain
Miller, Maude E.	Eugene
Mitchell, Walter S.	Baker City
Mitchell, Victoria	Merlin
Moon, Mrs. Eva	Eugene
Moon, Everad R.	Eugene
Moore, Felix E.	Astoria
Moore, Walter Jacob	Eugene
Moore, Gordon C.	Salem
Mott, Lloyd H.	Salem
Moulton, Herbert G.	Sumpter
Mount, Frank R.	Olympia, Wash.
Mount, Guy	Silverton
Muhr, Emily	Dunkirk, N. Y.
Murphy, George W.	Grass Valley
Myer, Mrs. Jessie	Eugene
Myer, Rolla	Eugene
Neil, Iter	Pendleton
Neill, Eva E.	La Grande
Newell, Dudley R.	Eugene
Newell, E. Gladys	Eugene
Newell, Paulus E.	Eugene
Noyes, Sadie M.	Portland
Oakes, Ivan E.	The Dalles
Oakes, Ninon E.	The Dalles
Oakley, Ralph L.	Eugene
Oakley, Ray W.	Eugene
Ordahl, George	Eugene
Ozasa, Sab Ro	Japan
Paddock, Harry O.	Clackamas
Paine, Elmer D.	Eugene
Palmer, Ernest	Eugene
Parker, Grace L.	Junction City
Penland, John R.	Dayton

Perkins, Cloan N.,	North Yamhill
Pitney, Inus,	Junction
Platts, William J.,	Eugene
Poill, Mabel B.,	Eugene
Poppleton, Ralph R.,	Portland
Prosser, William O.,	Eugene
Raffety, Harry L.,	Portland
Ramp, Lloyd C.,	Brooks
Ransom, M. Helen,	Sweetland, Cal.
Reid, Charles R.,	Portland
Riddell, Clyde W.,	The Dalles
Rhodes, Clayborne F.,	Thurston
Robinson, Claudius C.,	Wilderville
Robinson, E. Helene	Eugene
Robinson, Kirkman K.,	Wilderville
Robinson, Ralph D.,	Eugene
Roome, Samuel H.,	Portland
Ross, Clarence W.,	Lebanon
Ross, Custer E.,	Silverton
Rothrock, Mary,	Pendleton
Rountree, Robert C.,	Portland
Scott, Mary E.,	Independence
Shaver, Cora M.,	Portland
Shelton, Myrtle Mae,	Baker City
Sherk, Dafoe H.,	Huntington
Shirk, Harrison K.,	Eugene
Skipworth, Mary E.,	Eugene
Slauson, Jean C.,	Portland
Smith, Mabel C.,	Grants Pass
Snyder, Dewitt T.,	Liberty, Ind.
Somers, Dorilla J.,	Eugene
Steiber, Frederick,	Jefferson
Stevenson, Donald M.,	Klamath Falls
Stewart, Walter J.,	Lucknow, Ontario, Canada
Stockton, Roy V.,	Sheridan
Stockwell, Eugene L.,	Eugene
Stump, Fred N.,	Suver
Sullivan, George E.,	Oregon City
Taylor, Douglas W.,	Portland
Taylor, Ray,	The Dalles
Templeton, Frank,	Halsey
Templeton, Joseph H.,	Halsey
Thomas, St. Clair	Portland

Thomson, Cora M.,	Clackamas
Tiffany, Albert R.,	Eugene
Tiffany, Mabel A.,	Eugene
Tiffany, Maggie,	Eugene
Tomlinson, Vernon W.,	Woodburn
Travillion, Claire E.,	Baker City
VanDuyne, Agnes B.,	Coburg
Van Scoy, Paul W.,	Eugene
Veatch, John C.,	Cottage Grove
Walker, Roy G.,	Bly
Ware, Francis A.,	Stayton
Warfield, Mary E.,	Eugene
Warner, Charles T.,	Oregon City
Warner, Fred A.,	Oregon City
Washburne, Chester W.,	Eugene
Watson, Ralph W.,	Eugene
Weinhart, Eva,	Frances, Washington
West, Rose O.,	Clatsop
Wheeler, Harvey A.,	Eugene
Wheeler, Mark H.,	Eugene
Whiteside, Abby,	Vermillion, South Dakota
Wilkinson, Velma M.,	Athens
Williams, Angeline	Oregon City
Williams, E. L.,	Eugene
Williams, Nellie Fern,	Eugene
Williams, Roscoe H.,	Baker City
Winslow, Walter C.,	Salem
Wire, Wesley M.,	Eugene
Wold, Clara P.,	Eugene
Wold, Cora I.,	Eugene
Wood, William H.,	Astoria
Woodley, J. P.,	Eugene
Woods, Bessie J.,	Cottage Grove
Wright, Claude C.,	Union
Young, Homer C.,	Eugene

## SCHOOL OF MUSIC

## PIANO

Armitage, Edith,	Eugene
Barber, Mrs. W. H.,	Sherwood
Bean, Robert,	Eugene
Bean, Stella,	Eugene

Benson, Alice, .....	Portland
Booth, Barbara, .....	Eugene
Booth, Floyd, .....	Eugene
Chambers, Mary, .....	Eugene
Coffey, Vanda, .....	Eugene
Davis, Elsie, .....	Eugene
Dunn, Mrs. F. S., .....	Eugene
Esson, Vesta, .....	Eugene
Green, Robert, .....	Eugene
Harris, Edna, .....	Eugene
Harding Clara, .....	Eugene
Hawthorne, Pearl, .....	Eugene
Hales, Beatrice, .....	Eugene
Hales, Elizabeth, .....	Eugene
Hendricks, Norma, .....	Eugene
Huff, Hazel, .....	Eugene
Humphrey, Hazel, .....	Eugene
Kinsey, Beulah, .....	Eugene
Knoop, Betty, .....	Eugene
Logan, Elizabeth, .....	Eugene
Mateer, Marion, .....	Eugene
Mateer, Hazel, .....	Eugene
McAlister, Ella, .....	Eugene
McAlister, Katherine, .....	Eugene
Mount, Grace, .....	Eugene
O'Hara, Lelah, .....	Ashland
Perkins, Neva, .....	Cottage Grove
Pipes, Mrs. S. F., .....	Eugene
Pitney, Myrtle, .....	Eugene
Potter, Pauline, .....	Eugene
Quackenbush, Veda, .....	Eugene
Slater, Bertha, .....	Eugene
Sage, May, .....	Eugene
Schlomberg, Pearl, .....	Eugene
Shelton, Myrtle, .....	Baker City
Shumate, Kathleen, .....	Eugene
Smith, Mrs. Mae Huff, .....	Eugene
Spencer, Bernice, .....	Eugene
Stump, Fred, .....	Suver
Rees, Mary, .....	Eugene
Rowland, Raymond, .....	Eugene
Robinson, Helene, .....	Eugene
Williams, Margery, .....	Eugene

## VOICE

Barber, Mrs. J. L., .....	Portland
Beck, Sidney, .....	Portland
Crawford, Katherine, .....	Portland
Clark, Herbert, .....	Oregon City
DeBar, Florence, .....	Eugene
Dunn, Mrs. F. S., .....	Eugene
Gray, Mary, .....	Portland
Hendricks, Ruby, .....	Eugene
Kays, Myrtle, .....	Eugene
Linn, Mrs. G. D., .....	Eugene
McMoran, George, .....	Eugene
Mount, Grace, .....	Eugene
Neill, Eva, .....	La Grande
Noffsinger, Ida, .....	Eugene
O'Hara, Lelah, .....	Ashland
Pickel, Adele, .....	Medford
Schrenders, P. G., .....	Eugene
Smith, Mrs. Mae Huff, .....	Eugene
Stump, Fred, .....	Suvers
Warfield, Harriet, .....	Eugene
Warfield, Mary, .....	Eugene
Walker, R. G., .....	Ashland
Wilkins, Lucia, .....	Eugene
Wilkinson, Vesta, .....	Athena
Woods, Bess J., .....	Cottage Grove

## VIOLIN

Blanton, Newton, .....	Eugene
DeBar, Mary, .....	Eugene
Eakin, Barbara, .....	Rickreall
Gregory, Dorris, .....	Springfield
Goldsmith, Meta, .....	Eugene
Holman S. H., .....	Eugene
Mayhew, Merle, .....	Eugene
McGary, Edith, .....	Eugene
Maurer, Pansy, .....	Eugene
Pitney, Inez, .....	Eugene
Ramsey, George, .....	Eugene
Roach, Buford, .....	Eugene
Svarverud, Andrew, .....	Eugene
Whiteside, Abby, .....	Eugene

## SMALL INSTRUMENTS

Bacon, Ralph, .....	Eugene
Crawford, Katherine, .....	Portland
Catlin, Howard, .....	Eugene
Flynn, Ruth, .....	Albany
Kincaid, Webster, .....	Eugene
Paine, Elmer, .....	Eugene
Young, Harold, .....	Eugene

## SCHOOL OF MEDICINE

\*Partial course only.

Abele, John G., .....	Portland
Adix, H. V., .....	Portland
Applewhite, J. A., A. B., .....	Koscowsko, Miss.
Armes, R. S., .....	Portland
Babbitt, O., .....	Rochester, N. Y.
Babcock, O. D., D. D. S., .....	Seattle, Wash.
Babcock, Helen B., .....	Seattle, Wash.
Bettman, Adelbert, .....	Portland
Bilderback, Joseph, Ph. G., .....	Portland
Bittner, S. P., .....	Portland
Blair, J. Bennett, .....	Camas, Wash.
Boals, Robert T., .....	Mayger
Buckell, A. E. T., .....	N. W. Territory
Burdon, Minnie, .....	Anacortes, Wash.
Bursell, A., .....	Central Point
Chaney, Fred R., .....	Portland
Child, H. T., .....	Franklin Falls, N. H.
Day, Henry B., .....	Dayton, Wash.
Delaney, Julia E., .....	Dallas
Desmond, E., .....	Spokane, Wash.
*Dobie, H. M., .....	Portland
Drake, Elizabeth, .....	Seattle, Wash.
Estey, H. E., .....	Portland
Ettelson, Jesse, .....	Sprague, Wash.
Fessler, Theo., Ph. G., .....	Seattle, Wash.
Field, R., .....	Sheridan
Fisch, F. P., .....	Portland
Fox, T. J., .....	Marshfield
Gellert, Samuel, .....	Portland
Graves, Luzana, .....	St. Johns
*Gregg, N. R., M. D., .....	Coulee City, Wash.

Grieve, Robert, .....	Buffalo, N. Dak.
Griffith, Carl C., .....	Macleay
Hanson, Albert C., .....	Portland
*Harris, Fred W., .....	Forest Grove
Hendershott, H. M., .....	Portland
Hester, Thos. W., B. S., .....	Illinois
Hickman, Harvey O., .....	Oregon City
Hill, Geo. W., .....	Portland
Hoffman, C. J., .....	Portland
Holmberg, C. E., .....	Green River, Wash.
Holt, R., .....	Portland
Holt, W. W. P., A. B., .....	Portland
Hosch, Jacob F., .....	Scio
Hugh, Louie, .....	China
Inman, W. J., .....	Ranier, Wash.
Irvine, E. Lloyd, .....	Portland
James, R. F., .....	Oroville, Cal.
Kaiser, W. F., .....	Portland
Kane, J. Edward, .....	Pennsylvania
Kavanaugh, H. J., A. B., .....	Gervais
Killingsworth, Wm., Jr., .....	Portland
Kinney, A. M., .....	Astoria
Koenig, C. E., .....	Columbus, Wash.
Hyde, S. M., .....	Spokane, Wash.
Lacy, H. C., .....	Portland
Lamb, H. S., A. B., .....	Eugene
Lemon, Cora B., .....	Grants Pass
Lieser, Herbert C., .....	Vancouver, Wash.
Lieser, Miles M., .....	Vancouver, Wash.
Lieuallen, Fred, .....	Adams
Lowe, Wilbur, .....	Portland
Maki, Emma R., .....	Wisconsin
Manion, Lorne, .....	Portland
McCullom, J. W., .....	Hamilton, Ont.
Mikkelson, A. C., .....	Astoria
Moad, C. L., .....	Wenatchie, Wash.
Monroe, Wm. A., .....	Tacoma, Wash.
Morse, E. W., .....	Portland
Morse, W. N., .....	Oregon City
Nordon, Ben L., .....	Portland
Norris, E. R., .....	Tacoma, Wash.
Patton, Bertha T., .....	Portland
Peacock, Frederick, .....	Brandon, Man.

Pratt, F. S.,	Seattle, Wash.
Rahal, Carl,	Tacoma, Wash.
Reames, Clara W.,	Astoria
Regan, Anna M.,	Portland
Reitzel, M. E.,	Ruckles
Reynolds, Anna G.,	Portland
Richards, Cecil,	Almira, Wash.
Ross, John C.,	Cathlamet, Wash.
Ross, Thomas,	Astoria
Rue, H. A.,	St. Johns
Rupel, C. F.,	Tacoma, Wash.
Sargeant, Albert,	Chehalis
Smith, B. E.,	Portland
Smith, Wm. E.,	Albany
Snively, J. Howard,	Prosser, Wash.
Starbuck, A. B.,	Portland
Start, H. A., A. B.,	Portland
Thomas, Jno. S.,	Seattle, Wash.
Thompson, F. F. T.,	Portland
Townley, T.,	Portland
Tyler, Leatha	Ashland
Ullman, F. G., Ph. G.,	Baker City
Waffle, E. B.,	Pendleton
Wheeler, Glenn,	Portland
Wiley, Percy J.,	Tillamook
*Wiltsie, R. W.,	Seattle, Wash.
Wooden, J. L.,	Ashland
Zieber, Thos. E.,	Independence
Zieburth, C. B.,	Montesano, Wash.

## SCHOOL OF LAW

## SENIORS

Abbey, Adolph,	Portland
Beckwith, John A.,	Portland
Cahalin, John F.,	Portland
Ellis, Joseph T.,	Portland
Evans, Walter H.,	Portland
Fouts, Seneca F.,	Hood River
Graham, John W.,	Graeme
Hartley, Lee L.,	Portland
Irwin, Ben,	Milwaukie
Johnson, Albert E.,	Portland

Kelly, George J.,	Portland
Latourette, Henry F.,	Portland
Matsui, Yori S.,	Kobe, Japan
Mosessohn, Moses,	Portland
Pruitt, William C. E.,	Pendleton
Richardson, Clyde,	Portland
Rutherford, Frank B.,	McMinnville
Stivers, Walter H.,	Portland
Stringer, Arthur R., Jr.	Portland

## JUNIORS

Ambrose, Clinton A.,	Portland
Anderson, A. D.,	Portland
Bradley, Charles A.,	Portland
Bumpus, George,	Portland
Garbutt, L. J.,	Baker City
Goodrich, Ray,	Eugene
Iancovici, Harry,	Portland
Jones, Abner H.,	Portland
Leonard, Archibald F.,	Portland
Minar, Edwin L.,	Portland
Parshley, Alpheus W.,	Portland
Peters, Thomas M.,	Portland
Reed, George H.,	Portland
Reid, Alvin S.,	Portland
Riesland, C. Ben,	Portland
Russ, William S.,	San Francisco, Cal.
Saga, H.,	Tokio, Japan
Schmeer, Herman A.,	Portland
Stadter, Edward O.,	Portland
Stevenson, David H.,	Portland
Sternberg, Charles D.,	Albany
Stout, Clarence C.,	McMinnville
True, R. S.,	Portland
West, Thomas H.,	Portland
Wetherill, Richard,	Vancouver, Wash.

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