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CATALOGUE 1911-1912

Announcements, 1912-1913



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University of Oregon, Eugene, Oregon.

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Degrees Conferred	280
Students Enrolled	283

CALENDAR, 1912

JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3	1	2	3	4	5	6	7
7	8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28	29	30	31	29	30					
OCTOBER							NOVEMBER							DECEMBER						
	1	2	3	4	5							1	2	1	2	3	4	5	6	7
6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14
13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21
20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28
27	28	29	30	31			24	25	26	27	28	29	30	29	30	31				

CALENDAR, 1913

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	29	20	21	22	16	17	18	29	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28		23	24	25	26	27	28	29
														30	31					
APRIL							MAY							JUNE						
	1	2	3	4	5					1	2	3		1	2	3	4	5	6	7
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
27	28	29	30				25	26	27	28	29	30	31	29	30					

CALENDAR.

September 16.—Admission examinations.

September 17 to February 7.—First semester.

February 10 to June 18.—Second semester.

CALENDAR IN DETAIL.

September 16, Monday.	Session of the School of Law begins in Portland.
September 16, Monday.	Entrance examinations at Eugene for the College of Literature, Science and the Arts, and the College of Engineering. Examinations for removal of conditions.
Sept. 17, Tuesday	First semester opens. Payment of incidental fees and registration. Filing of applications for undergraduate, graduate and special student standing, if such applications have not already been filed. Instructors keep office hours for consultation with the students.
Sept. 18, Wednesday	
Sept. 19, Thursday.	All University work begins.
Sept. 27, Friday.	Reception to the new students by the Christian Associations.
October 4, Friday.	Last date for filing subjects for senior theses with the Registrar.
October 7, Monday.	Session of the School of Medicine begins in Portland.
October 9, Wednesday.	Regular meeting of Associated Students.
November 27, 12 M. to	Thanksgiving recess.
December 1, Sunday	
November 25, Monday.	Second term School of Law begins.
December 2, Monday.	Examinations for removal of conditions.
December 3, Tuesday.	
December 14, Saturday.	Sophomore party, Gymnasium.

December 21, Saturday to January 5, Sunday, inclusive.	} Christmas vacation.
January 6, Monday.	Recitations begin 8 A. M., after Christmas holidays.
January 10, Friday.	Last date for filing with Registrar subjects for Failing and Beekman orations.
January 10, Friday.	Annual tryout Interstate Debating Team.
January 21, Tuesday.	Regular meeting of the Board of Regents, Villard Hall.
January 24, Friday.	Annual contest in Oratory to choose representative for Intercollegiate contest.
February 3, Monday.	Mid-year examinations begin.
February 7, Friday.	First semester ends.
February 10, Monday.	Second semester begins.
February 14, Friday.	Annual contest in Oratory to choose representative for Interstate contest.
February 15, Saturday.	Freshman party, Gymnasium.
February 22, Saturday.	Washington's Birthday. A holiday.
Feb. 26, Wednesday.	Regular meeting of Associated Students.
Feb. 26, Wednesday.	Third term School of Law begins.
April 12, Saturday.	} Spring vacation.
April 20, Sunday.	
April 26, Saturday.	Graduating exercises School of Medicine.
April 26, Saturday.	Preliminary tryout for Failing and Beekman orators.
April 26, Saturday.	Date for filing with the Registrar type-written copies of the Failing and Beekman orations.
May 5, Monday.	} Examinations for removal of conditions.
May 6, Tuesday.	
May 5, Monday.	
	Last date for filing applications for graduate degrees with the Registrar.

May 7, Wednesday.	Regular meeting of Associated Students. Annual election.
May 9, Friday.	} Junior Week-End. Holidays.
May 10, Saturday.	
May 17, Saturday.	
May 19, Monday.	
	Session of the School of Law ends.
	Last date for filing graduate theses with the Registrar.
May 30, Friday.	Memorial Day. All University classes dismissed.
June 2, Monday.	Last date for filing senior theses with the Registrar.
June 9, Wednesday.	Final examinations begin.

COMMENCEMENT WEEK.

June 15, Sunday.	Baccalaureate sermon, 11 A. M.
June 16, Monday.	Field day, 2 P. M.; recital School of Music, 8 P. M.
June 17, Tuesday.	Alumni business meeting, 10 A. M.; Presi- dent's reception, 3 P. M.; Failing-Beek- man contest, 8 P. M.
June 17, Tuesday.	Regular meeting of the Board of Regents, President's office, Villard Hall.
June 18, Wednesday.	Commencement exercises, 10 A. M.; Alumni banquet, 1 P. M.; Alumni ball, 9 P. M.

REGULAR MEETINGS OF THE BOARD OF REGENTS, 1912-13

Tuesday, January 21, 1913
Tuesday, June 17, 1913

REGULAR MEETINGS OF THE FACULTY 1912-13

Thursday, October 3, 1912
Thursday, November 7, 1912
Thursday, December 5, 1912
Thursday, January 2, 1913
Thursday, February 6, 1913
Thursday, March 6, 1913
Thursday, April 3, 1913
Thursday, May 1, 1913
Thursday, June 5, 1913

REGULAR MEETINGS OF THE ATHLETIC COUNCIL 1912-13

Saturday, September 14, 1912
Saturday, December 14, 1912
Saturday, March 15, 1913
Saturday, June 14, 1913

REGULAR MEETINGS OF ASSOCIATED STUDENTS 1912-13

Wednesday, October 9, 1912
Wednesday, February 26, 1913
Wednesday, May 7, 1913

**REGULAR MEETINGS STUDENT AFFAIRS COMMITTEE
1912-13.**

Wednesday, October 2, 1912
Wednesday, October 16, 1912
Wednesday, November 6, 1912
Wednesday, November 13, 1912
Wednesday, November 27, 1912
Wednesday, December 4, 1912
Wednesday, January 1, 1913
Wednesday, January 15, 1913
Wednesday, January 29, 1913
Wednesday, February 12, 1913
Wednesday, February 26, 1913
Wednesday, March 12, 1913
Wednesday, March 26, 1913
Wednesday, April 2, 1913
Wednesday, April 29, 1913
Wednesday, May 14, 1913

OFFICERS OF THE UNIVERSITY

THE BOARD OF REGENTS

OFFICERS.

HON. ROBERT S. BEAN, President. L. H. JOHNSON, Secretary.

EXECUTIVE COMMITTEE

HON. ROBERT S. BEAN, Chairman.

HON. CYRUS A. DOLPH. HON. J. C. AINSWORTH.
HON. SAMSON H. FRIENDLY. HON. MILTON A. MILLER

EX-OFFICIO MEMBERS.

HON. OSWALD WEST, Governor.....Salem
HON. BEN W. OLCOTT, Secretary of State.....Salem
HON. L. R. ALDERMAN, Supt. of Public Instruction.....Salem

APPOINTED BY THE GOVERNOR.

NAMES AND ADDRESSES.	TERM EXPIRES.
HON. NEHEMIAH L. BUTLER, Dallas.....	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. R. S. BEAN, Portland.....	April 15, 1917
HON. MILTON A. MILLER, Lebanon.....	April 15, 1917
HON. SAMSON H. FRIENDLY, Eugene.....	April 15, 1919
HON. J. C. AINSWORTH, Portland.....	April 15, 1921
HON. A. C. DIXON, Eugene.....	April 15, 1921
HON. CHARLES H. FISHER, Eugene.....	April 15, 1921

ADMINISTRATIVE OFFICERS

THE UNIVERSITY

P. L. CAMPBELL, B. A.	President
A. R. TIFFANY, B. A.	Registrar
LOUIS H. JOHNSON	Financial Agent
M. H. DOUGLASS, M. A.	Librarian

THE COLLEGES AND SCHOOLS

FREDERICK GEORGE YOUNG, B. A.,	Dean of Graduate School
JOHN STRAUB, M. A.,	Dean of College of Literature, Science, and the Arts
EDWARD HIRAM McALISTER, M. A.,	Dean of College of Engineering
CHARLES J. C. BENNETT, Ph. D.,	Dean of School of Education
SIMEON EDWARD JOSEPHI, M. D.,	Dean of School of Medicine
C. U. GANTENBEIN, LL. B.	Dean of School of Law
MARY G. MORGAN	Acting Dean of School of Music
MRS. ELLEN M. PENNELL	Acting Dean of Women

OFFICERS OF INSTRUCTION

THE FACULTY*

- P. L. CAMPBELL, B. A., 538 E. 13th St., EUGENE
President of the University.
B. A. Harvard University, 1886.
- PERCY PAGET ADAMS, B. S., 780 Mill St., EUGENE
Assistant Professor of Civil Engineering.
B. A. University of Oregon, 1901; B. S., 1902.
- CLYDE B. AITCHISON, B. S., PORTLAND
Lecturer on Water Rights.
- FRANKLIN L. BARKER, E. M., 337 E. 13th St., EUGENE
Professor of Geography.
B. A., Colgate University, 1898.
E. M., Colorado School of Mines, 1906.
- JAMES DUFF BARNETT, Ph. D., 387 E. 11th St., EUGENE
Professor of Political Science.
B. A., Emporia.
Ph. D., University of Wisconsin.
- BENJAMIN B. BEEKMAN, A. B., LL. B., PORTLAND
Lecturer on Agency.
- JAMES FRANCIS BELL, M. D., L. R. C. P. (London), PORTLAND
Professor of Theory and Practice of Medicine.
- CHARLES J. C. BENNETT, Ph. D., South Alder St., EUGENE
Professor of Education and Psychology.
B. A., University of Nashville, 1899.
M. A., Stanford University, 1896.
Ph. D., Columbia University, 1905.
- OTTO SALY BINSWANGER, Ph. D., M. D., PORTLAND
Professor of Chemistry and Toxicology.

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

- JOHN FREEMAN BOVARD, M. S., 672 High St., EUGENE
Professor of Zoology.
B. S., University of California, 1903; M. S., 1906.
- WILLIAM PINGRY BOYNTON, Ph. D., 135 E. 11th St., EUGENE
Professor of Physics.
A. B., Dartmouth College, 1890; A. M., 1893.
Scholar and Fellow in Physics, Clark University, 1894-97;
Ph. D., Clark University, 1897.
- EARL C. BRONAUGH, A. M., LL. B., PORTLAND
Lecturer on Domestic Relations.
Judge of the Circuit Court of the State of Oregon.
- FRANCIS D. CHAMBERLAIN, A. B., LL. B., PORTLAND
Lecturer on Corporations and Partnership.
- ROBERT CARLTON CLARK, Ph. D., 649 Hilyard St., EUGENE
Professor of History.
B. A., M. A., University of Texas, 1901.
Ph. D., University of Wisconsin, 1905.
- JOHN B. CLELAND, LL. B., PORTLAND
Lecturer on Sales.
Judge of the Circuit Court of the State of Oregon.
- TIMOTHY CLORAN, Ph. D., 315 E. 15th St., EUGENE
Professor of Romance Languages.
A. B., Western Reserve University, 1891; Student, Universities of Berlin and Strassburg, 1897-99; Ph. D., University of Strassburg, 1901; Student, University of Paris, 1904-05; Student, University of Madrid, 1905-06.
- ARTHUR J. COLLIER, M. A., 321 E. 12th St., EUGENE
Professor of Geology.
B. A., University of Oregon, 1888.
M. A., University of Oregon, 1893.
B. S., Harvard University, 1894.
- EDMUND S. CONKLIN, Ph. D., 844 Emerald Ave., EUGENE
Assistant Professor of Psychology.
B. H., Springfield (Mass.), 1908.
Scholar and Fellow in Psychology, Clark University, 1908-11.
A. M., Clark University, 1909.
Ph. D., Clark University, 1911.

CHARLES W. CONVERSE, M. A., 645 Hilyard St., EUGENE
Assistant Professor of Electrical Engineering.
B. A., University of Oregon, 1902; M. A., 1905.

RICHARD HAROLD DEARBORN, M. E., 341 E. 9th St., EUGENE
Professor of Electrical Engineering.
A. B., Portland University, 1895.
M. E., Cornell University, 1900.

EDGAR EZEKIEL DECOU, M. S., 719 Mill St., EUGENE
Professor of Mathematics.
B. S., University of Wisconsin, 1894; M. S. University
of Chicago, 1897; Graduate Student University of Chi-
cago, 1899-1900; University Scholar Yale University,
1900-01.

RICHARD BENJAMIN DILLEHUNT, B. S., M. D., PORTLAND
Pofessor of Anatomy.

FREDERIC STANLEY DUNN, M. A., 856 Alder St., EUGENE
Professor of Latin Language and Literature.
B. A., University of Oregon, 1892; B. A. Harvard Uni-
versity, 1894; M. A., University of Oregon, 1899; M. A.,
Harvard University, 1903.

WALTER H. EVANS, B. S., LL. B., PORTLAND
Lecturer on Contracts and Negotiable Instruments.

FRED GOODRICH FRINK, B. S., LL. B.,
603 Hilyard St., EUGENE
Professor of Railway Engineering.
B. S. in Civil Engineering, University of Michigan;
M. S., University of Chicago; Special Student Sanitary
Engineering, Massachusetts Institute of Technology.

CALVIN U. GANTENBEIN, LL. B., PORTLAND
Dean of the School of Law, and Professor of Criminal
Law, Torts and Evidence.
Judge of the Circuit Court of the State of Oregon.

WILLIAM BALL GILBERT, LL. D. PORTLAND
Lecturer on Constitutional Law.
Judge of the United States Circuit Court of Appeals.

JAMES HENRY GILBERT, Ph. D. 1073 Alder St., EUGENE
Assistant Professor of Economics.

B. A., University of Oregon, 1903.

Ph. D., Columbia University, 1907.

THOMAS G. GREENE, LL. B. PORTLAND
Lecturer on Bankruptcy.

MONTANA HASTINGS, B. S., 329 E. 9th St., EUGENE
Assistant Professor of Education.

B. S., Columbia University, 1909.

Graduate Student Columbia University, University of
Chicago, and University of Jena.

WILLIAM L. HAYWARD, EUGENE
Director Men's Gymnasium.

HERBERT CROMBIE HOWE, B. A., 908 Alder St., EUGENE
Professor of Modern English Literature.

B. A., Cornell University, 1893; Graduate Scholar Cor-
nell University, 1893-94, 1894-95.

SIMEON EDWARD JOSEPHI, M. D. PORTLAND
Dean of School of Medicine and Professor of Obstetrics
and Nervous Diseases.

OTTO J. KRAEMER, LL. B. PORTLAND
Lecturer on Justice's Court Practice.

EDMUND JOHN LABBE, M. D. PORTLAND
Professor of Pediatrics.

HEMAN BURR LEONARD, Ph. D. S. Alder St., EUGENE
Assistant Professor of Mathematics.

B. S. (E. E.) University of Michigan, 1895.

Ph. D., University of Colorado, 1906.

ALBERT EDWARD MACKAY, M. D. PORTLAND
Professor of Diseases of Genito-Urinary Organs.

JOHN DICE MACLAREN, Ph. B., M. D. PORTLAND
Professor of Physiology.

KENNETH ALEXANDER J. MACKENZIE, M. D., C. M.,
L. R. C. P. & L. R. C. S., Edinburgh, PORTLAND
Professor of Operative Surgery.

EDWARD HIRAM McALISTER, A. M., 322 Pearl St., EUGENE
Dean of the College of Engineering and Professor of
Civil Engineering.
A. B., University of Oregon, 1890.
A. M., University of Oregon, 1893.

WALLACE McCAMANT, A. B. PORTLAND
Lecturer on Bailments and Carriers.

FRANKLIN CHAMBERS McLEAN, B. S., M. D. PORTLAND
Professor of Materia Medica and Pharmacology.

RICHARD W. MONTAGUE, Ph. B., LL. B. PORTLAND
Lecturer on Equity.

ROBERT G. MORROW, Ph. B. PORTLAND
Lecturer on Brief-Making and Supreme Court Practice.
Judge of the Circuit Court of the State of Oregon.

HENRY H. NORTHUP, LL. B. PORTLAND
Lecturer on Pleading, Practice, and Probate Law.

RICHARD NUNN, A. B., B. Ch., M. D. PORTLAND
Professor of Diseases of Eye, Ear, Nose, and Throat.

THOMAS O'DAY, LL. B., PORTLAND
Lecturer on Bailments and Carriers.
Judge of the Circuit Court of the State of Oregon.

ARCHIBALD F. REDDIE, B. A., Birch Lane, EUGENE
Professor of Public Speaking.
Graduate Emerson College of Oratory.
B. A., Valparaiso University (Honorary).

DAVID NATHANIEL ROBERG, M. D. PORTLAND
Professor of Anatomy and Histology.

JOSEPH SCHAFER, Ph. D. 588 E. 13th St., EUGENE
Professor of History.

B. L., University of Wisconsin, 1894; M. L. University of Wisconsin, 1899; Fellow University of Wisconsin, 1900; Ph. D., University of Wisconsin, 1906.

FRIEDRICH GEORG G. SCHMIDT, Ph. D., 307 E. 14th St., EUGENE
Professor of the German Language and Literature.

Student at the University of Erlangen, 1888-90; Student at Johns Hopkins University, 1893-96; University Scholar 1894-95; Fellow, 1895-96; and Ph. D., 1896.

FREDERICK LAFAYETTE SHINN, Ph. D. 386 E. 11th St., EUGENE
Assistant Professor of Chemistry.

A. B., Indiana University, 1901; A. M., 1902; Ph. D. University of Wisconsin, 1906; Scholar, Yale University, 1902.

ORIN FLETCHER STAFFORD, M. A. 12th and Patterson Sts., EUGENE
Professor of Chemistry.

B. A., M. A., University of Kansas.

GEORGE BURNSIDE STORY, M. D. PORTLAND
Professor of Physiology.

JOHN STRAUB, M. A. 325 E. 11th St., EUGENE
Dean of the College of Literature, Science and the Arts, and Professor of Greek Language and Literature.

A. B., Mercersburg College, 1876.

A. M., Mercersburg College, 1879.

BERTHA STUART, A. B., M. D., 13th and Kincaid Sts., EUGENE
Director Women's Gymnasium.

A. B., M. D., University of Michigan.

ALBERT RADDIN SWEETSER, M. A. 17th and Alder Sts., EUGENE
Professor of Botany.

A. B., Wesleyan University, 1884.

A. M., Wesleyan University, 1887.

EDWARD ALLEN THURBER, M. A. 387 E. 11th St., EUGENE
Professor of Rhetoric and American Literature.
B. A., Yale, 1891.
M. A., Harvard, 1894.

ERNEST FANNING TUCKER, A. B., M. D. PORTLAND
Professor of Gynecology.

ARTHUR L. VEAZIE, A. M., LL. B. PORTLAND
Lecturer on Real Property.

GEORGE FLANDERS WILSON, M. D. PORTLAND
Professor of Principles and Practice of Surgery and
Clinical Surgery.

CHARLES E. WOLVERTON, A. B., LL. D. PORTLAND
Lecturer on Federal Procedure.
Judge of the United States District Court.

ROBERT CLARK YENNEY, M. D. PORTLAND
Professor of Clinical Medicine.

FREDERICK GEORGE YOUNG, B. A., 301 E. 9th St., EUGENE
Dean of Graduate School and Professor of Economics
and Sociology.
B. A., Johns Hopkins University, 1886.
University Scholar, Johns Hopkins University, 1886-87.

JAMES CULLEN ZAN, M. D. PORTLAND
Adjunct Professor of Clinical Surgery.

INSTRUCTORS AND ASSISTANT INSTRUCTORS.

PAUL BOND, B. A. EUGENE
Assistant Instructor in Physics.

GRETA ELIZABETH BRISTOW, B. A., 358 Lawrence St., EUGENE
Assistant Instructor in English Literature.
B. A., University of Oregon, 1910.

JULIA BURGESS, M. A. 120 E. 13th St., EUGENE
Instructor in English.
B. A., Wellesley College.
M. A., Radcliffe College.

- MOZELLE HAIR, B. A. E. 12th St., EUGENE
Secretary Correspondence-Study Department.
B. A., University of Oregon, 1908.
- J. LEROY JOHNSON, B. A. 844 Emerald Ave., EUGENE
Instructor in Public Speaking.
B. A., University of Wisconsin, 1911.
- WILLIAM B. KEMPTHORNE, Ph. B., 844 Emerald Ave., EUGENE
Instructor in Mathematics.
Ph. B., University of Wisconsin, 1907.
- HUGO WILHELM KOEHLER, B. A. EUGENE
Instructor in German.
B. A., Syracuse University, 1903.
Student at Leipzig University, 1903-04.
- CARL A. MCCLAIN, B. S. 945 E. 17th St., EUGENE
Instructor in Civil Engineering.
B. S., University of Oregon, 1906.
- ELLEN M. PENNELL, 257 E. 12th St., EUGENE
Instructor in English and Acting Dean of Women.
- MARY HALLOWELL PERKINS, M. A. 13th and Kincaid Sts., EUGENE
Instructor in English.
B. A., Bates College.
M. A., Radcliffe College.
- CHARLES ROY REID, B. S. 914 Ferry St., EUGENE
Instructor in Electrical Engineering.
B. S., University of Oregon, 1906.
- MAUDE I. STINSON, B. A. 388 E. 13th St., EUGENE
Assistant in English.
B. A., Stanford University.
- HARRIET THOMSON, A. B., 13th and Kincaid, EUGENE
Instructor in Physical Training.
A. B., University of Michigan.

MARY WATSON, B. A. 653 E. 11th St., EUGENE
Instructor in English Literature.
B. A., University of Oregon, 1908.

STUDENT ASSISTANTS.

J. ALBERT BAKER,
Assistant in Shops.

ANNIE BERGMAN, B. A.,
Assistant in Romance Languages.

GERTRUDE DENHART, B. A.,
Assistant in German.

RUTH HOWELL,
Assistant in Botany.

RUTH LATHROP,
Assistant in Romance Languages.

HAROLD QUIGLEY,
Assistant in Correspondence-Study Department.

CHARLES N. REYNOLDS,
Assistant in Correspondence-Study Department.

CARLTON SPENCER,
Assistant in Correspondence-Study Department.

IRA D. STAGGS,
Assistant in Shops.

HOMER WHEELON, B. A.,
Assistant in Zoology.

**SPECIAL LECTURERS, DEPARTMENT OF MEDICINE,
PORTLAND.**

CALVIN WHITE, M. D., Lecturer on Hygiene.

JAMES OSCAR WILEY, M. D., Lecturer on Physical Diagnosis.

J. ALLEN GILBERT, Ph. D., M. D., Lecturer on Clinical Medicine.

RALPH CHARLES MATSON, M. D., Lecturer on Bacteriology.

LUTHER H. HAMILTON, M. D., Lecturer on Electro-Therapeutics.

FRANK M. TAYLOR, A. B., M. D., Lecturer on Dietetics, etc.
J. C. ELLIOTT KING, A. B., M. D., Lecturer on Dermatology.
OTIS BUCKMINSTER WIGHT, A. B., M. D., Lecturer on
Gynecology.

WILLIAM HOUSE, M. D., Lecturer on Medical Jurisprudence.
GEORGE F. KOEHLER, M. D., Lecturer on Diseases of Stomach
and Intestines. (Adjunct to Medicine.)

ALVIN W. BAIRD, M. D., Lecturer on Operative Surgery.

C. J. McCUSKER, M. D., Lecturer on Hematology.

GEORGE NORMAN PEASE, M. D., Lecturer on Operative
Surgery.

OTIS F. AKEN, M. D., Lecturer on Orthopedic Surgery.

FRED J. ZIEGLER, A. B., M. D., Lecturer on Minor Surgery.

CLINICAL LECTURERS.

GEORGE SHATTUCK WHITESIDE, M. D., Genito-Urinary
Diseases.

RALPH A. FENTON, M. D., Ophthalmology and Oto-Laryngology.

RALPH C. MATSON, M. D., Tuberculosis and Vaccine Therapy.

ROBERT H. ELLIS, M. D., Obstetrics.

R. C. YENNEY, M. D., Internal Medicine.

J. C. ELLIOTT KING, Dermatology.

LABORATORY DEMONSTRATORS.

OTIS F. AKIN, M. D., Demonstrator of Anatomy.

THEODORE FESSLER, M. D., Laboratory Demonstrator of
Chemistry.

C. J. McCUSKER, M. D., Laboratory Demonstrator of Physiology.

A. N. CREADICK, M. D., Laboratory Demonstrator of Pathology.

MARIUS BRECKENRIDGE MARCELLUS, B. S., M. D., Assist-
ant Laboratory Demonstrator of Pathology.

MARY V. MADIGAN, M. D., Laboratory Demonstrator of
Physiology.

GEORGE ANDREW CATHEY, Laboratory Demonstrator of
Bacteriology.

STAFF OF THE SCHOOL OF MUSIC.

MARY GOODBAR MORGAN	322 E. 11th St., EUGENE
Acting Director, School of Music and Instructor in Piano and Theory.	
EVE I. STINSON, Mus. B.	157 E. 8th St., EUGENE
Instructor in Singing.	
DAVID CAMPBELL	368 University Ave., EUGENE
Instructor in Piano.	
ALBERTA CAMPBELL	183 E. 12th St., EUGENE
Assistant Instructor in Piano.	
INA WATKINS	95 W. 5th St., EUGENE
Assistant in Piano.	
ETHEL EVANS, Mus. B.	108 E. 13th St., EUGENE
Assistant in Piano.	
NELL G. MURPHEY, Mus. B.	273 W. 10th St., EUGENE
Assistant in Piano.	
LILA C. PROSSER, B. Mus.	106 E. 14th St., EUGENE
Assistant in Voice.	

LIBRARY STAFF.

M. H. DOUGLASS, M. A.	LIBRARIAN
CAMILLA LEACH	REFERENCE LIBRARIAN
BEATRICE J. BARKER, Ph. B.	CATALOGUER
RUTH DUNIWAY, B. A.	ASSISTANT
OLGA E. OLSEN	STUDENT ASSISTANT

COMMITTEES OF THE FACULTY.*

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

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

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

THE GRADUATE COUNCIL—Professors Young, McAlister, Schmidt, Howe and Stafford.

UNIVERSITY EXTENSION — Professors Bennett, Dunn, Schmidt, Howe and Stafford.

ATHLETICS—Professors Schafer, Leonard and Hayward.

CREDENTIALS—Professors Bennett, Young and Schafer.

EXAMINATIONS AND SENIOR CREDITS—Professors McAlister, Dunn, and Bennett.

SPECIAL STUDENTS—Professors DeCou, Young, Sweetser and the President.

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

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

ADVANCED STANDING—Professors Stafford, McAlister and Dunn.

STUDENT AFFAIRS—The President, Professors Dearborn, Dunn, Bovard, and Mrs. Pennell.

REVISION OF STUDENTS' COURSES—Professors DeCou, Straub and Dearborn.

STUDENT LOAN FUND—Professors Straub, DeCou and the Registrar.

APPOINTMENT COMMITTEE—Professors Schafer, Boynton, Thurber, Schmidt, DeCou and Dunn.

GRADES—The Registrar, Professors McAlister and Bovard.

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 preamble of the act of October 21, 1876, entitled, "An Act to provide for the support and government of the University of Oregon," is as follows:

"WHEREAS, by an act of the Legislative Assembly, approved October 19, 1872, it was provided that, in order to devote to the purposes of education the seventy-two sections of land donated to the State for the use and support of a State University by the act of Congress of February 14, 1859, a State University, having for its design to provide instruction and complete education in all the departments of science, literature, professional pursuits and general education, be created and permanently located at Eugene; *provided*, that the Union University Association of Eugene should, on or before January 1, 1874, secure a site for the same at or in the vicinity of Eugene, and erect thereon and furnish a building of not less value than fifty thousand dollars, for the use of said University, on a plan to be approved, and after the erection of the same, to be adopted, by the board of commissioners for the sale and management of the school and university lands, and for the investment of the funds arising therefrom; and

"WHEREAS, said University Association of Eugene, having duly provided a site for said University, and erected thereon, on a plan first approved by said board of commissioners, a building for the use thereof, as provided in said act of October 19, 1872, which site and building was by said board of commissioners, in July, 1876, duly accepted, and has since been duly conveyed by said University Association to the board of directors of said University; and,

"WHEREAS, the directors of the University aforesaid did, in pursuance of an act of October 19, 1872, on August 9, 1876, elect and appoint a president and two professors of said University and also a principal and assistant teacher of the preparatory department therein, and did also 'fix the salaries of said president, professors and teachers and prescribe the tenure of their offices, the beginning and end of the school year of said University, the studies to be pursued thereat, the admission fees and rates of tuition, together with the qualifications for admission therein'; therefore,

"Be it enacted by the Legislative Assembly of the State of Oregon:

"That the interest which may hereafter accrue on the fund arising from the sale of the University lands aforesaid, is hereby set apart and perpetually appropriated to the maintenance, use and support of the "University of Oregon."

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 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 for the first two years required, and the greater portion of the last two years elective except for a major elective requirement.

Finally, during the year 1904-05, the University 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 eight semester hours of gymnasium work, and two year-courses in some language other than English. It is found that by means of the major requirement, the University is 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, cannot 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.

ENVIRONS.

The University of Oregon is located at Eugene, in Lane County, a rapidly growing city of 12,000 people. Eugene 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. Many miles of hard-paved streets give it an air of a city of much larger size. It has an excellent system of public schools, with five grade school buildings and a magnificent high school building. The high school has over 500 students and is the largest in the State outside of Portland. All

the leading denominations are represented by strong churches. The Eugene public library and the city Y. M. C. A. building are centers of interest.

NO SALOONS IN EUGENE.

There are no saloons in Eugene. Under the Oregon local option law the people of Eugene voted out all saloons four years ago, and the majorities against them have increased at each subsequent election. The whole college and city life is entirely free from their evils.

BUILDINGS AND GROUNDS.

The University grounds are situated about one mile southeast of the center of the city. Electric cars pass the campus every few minutes, giving easy communication with the business section and other parts of the city. The campus contains 80 acres of land, about evenly divided into two sections by East Thirteenth street. On the north campus are located the main University buildings; on the south campus, the girls' dormitories, the President's house, and the athletic field. The buildings are situated on a natural rise of ground overlooking the city. Native and exotic trees and plants are interspersed here and there with rose hedges and flower gardens. The whole is a beautifully kept lawn, with handsome walks and drives, and is one of the beauty spots of the State. The Willamette River flows along its northern border and the snow-covered 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, was presented to the State by the citizens of Lane County, and was named in honor of Matthew P. Deady, the first president of the Board of Regents. It contains the Botanical, Zoological and Physical laboratories, and the departments of Latin, Greek, Romance Languages, German, and Modern 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 Condon geological collec-

tion, and the departments of Early English Literature, Geology, and Mathematics.

McClure Hall was built in 1900. It is devoted to the department of Chemistry and Geography, 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 of 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. The upper floor for the present is used as class rooms in Mathematics, Psychology, and for the Psychology laboratory.

Electrical Building, erected in 1901, contains the central heating and lighting plant of the University, and the department of Electrical Engineering. The shops are run by electricity and are well equipped with tools and machinery.

The Timber Testing Station was established in 1905. The Testing Laboratory is equipped with the latest machines and appliances necessary for testing the strength of timber, stone, and metals.

The Girls' Gymnasium is a brick building well fitted with suitable apparatus for the use of the women of the University only. The first floor contains the main hall, a room 45 x 70 feet, and the Director's office. The basement is completely fitted with shower baths, steel lockers, and dressing rooms. The entire building has just been remodeled at a cost of \$5,000.

The Men's 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. For full information concerning rates and accommodations, see department of catalogue, "Student Expenses."

The Library Building, completed in June, 1907, is a two-story with basement building of buff pressed brick. It is located south of Deady Hall near Thirteenth Street. The first floor contains the University library, a general reading room, a general reference room, a consultation room for faculty and students, and the offices of the Librarian and the Cataloguer. A part of the basement and second floor is used for class rooms.

Mary Spiller Hall, erected in 1907, will accommodate about 20 girls. It is a two-story and basement building, modern in all respects, well heated and lighted and comfortably fitted for living. For full information regarding the cost of board and room and of accommodations, see department of catalogue, "Student Expenses."

Engineering Hall was completed in February, 1909. It is a handsome two-story building, located on University Avenue, directly east of Mechanical Hall, and was designed especially for engineering instruction. It houses all of the departments of Civil Engineering. The general University repair shops are located in the basement.

The Men's Gymnasium. The new gymnasium for men is one of the best arranged on the Coast. It is fitted completely with all modern conveniences, the best apparatus, an indoor running track, a swimming pool, shower baths, lockers, etc.

The athletic field has a four-lap track surrounding a well constructed football field. The grand stand and the bleachers will seat 3,500.

THE UNIVERSITY LIBRARY

STAFF.

M. H. DOUGLASS, M. A.	-	-	-	-	-	-	Librarian
CAMILLA LEACH	-	-	-	-	-	-	Reference Librarian
BEATRICE J. BARKER, Ph. B.	-	-	-	-	-	-	Cataloguer
RUTH DUNIWAY, B. A.	-	-	-	-	-	-	Assistant
OLGA OLSEN	-	-	-	-	-	-	Student Assistant

RESOURCES.

The University library is a well selected and rapidly growing collection of books, now numbering something more than 37,000 volumes.

Since 1908, the regular annual appropriation for the purchase of books and periodicals and for binding has been \$10,000, though in 1911, because of pressure in other directions the full amount was not available. This annual appropriation has made possible a much more rapid development of library resources than was possible previous to 1908, when the principal fund regularly available for the purchase of books was \$400 a year from the income of endowment given to the University by the late Henry Villard. During the past four years there have been added to the Library 21,700 volumes.

The library is supplied with the best general and special reference books; the files of the principal American and English periodicals of general interest are being secured, and purchases are also being made of the most needed sets of scientific and learned societies and other valuable works, both American and foreign. Between 200 and 300 periodicals are currently received, besides many of the daily and weekly newspapers of the State. The library is a depository for the public documents published by the United States Government.

PLAN.

The present annual appropriation for books, besides making it possible to secure those of which there is most pressing need,

gives assurance that there will be built up at the University an exceedingly well equipped library for undergraduate work and for general reference purposes, and that provision will also be made for literature necessary for graduate research. At present special attention is being given to securing some of the reference books that have been most needed; to completing files of the most useful periodicals and continuations, both those of general interest and those needed for departmental purposes; to supplying the various departments with books most needed for work being done; and, in a general way, to building up a well rounded collection of books for working purposes.

HOURS.

The library is open daily except Sunday from 7:45 A. M. to 9 P. M., except that on Fridays and Saturdays it is closed at 5 P. M.

ACCESS TO STACKS.

All students have free access to all the books of the library.

LENDING.

Books, other than reference books and those especially reserved for use in the library, may be drawn for a period of two weeks and at the expiration of that time renewed for two weeks more. All persons connected with the University have the privilege of drawing books, and the use of the library for reference purposes is extended to the general public as well.

CLASSIFICATION.

The library is classified according to the Dewey decimal system—the one in most general use in this country, and is catalogued on cards according to the most approved methods.

BUILDING.

The library building was erected in 1907 at a cost, exclusive of furnishings, of about \$26,000. Its ground dimensions are 90 by 60 feet, and it includes two stories above a high basement, the

construction material being of buff pressed brick and stone and the interior wood finish the Oregon fir. On the main floor are the general reading, reference, and periodical rooms, stack space for the shelving of the main collection of books, Cataloguer's rooms, and a consultation room. In the basement are the Librarian's office, the University book store, an unpacking room, storage space for newspapers, documents, duplicates, etc., and there are also two well lighted rooms now used for recitation purposes. On the second floor are five recitation rooms, a seminar room for the department of Economics, and an exhibition room for the display of art and other special collections.

READING ROOM.

The reading room is furnished with handsome oak tables and chairs, with individual table lights and with the necessary provisions for comfortable reading and study. The building, though attractive and well arranged, has been outgrown, and provision was made by the last legislature for a larger, modern fire-proof library and museum building, to be erected and equipped at a cost of \$175,000.

THE UNIVERSITY MUSEUMS

The University museums are three in number, as follows:

GEOLOGICAL.

The Geological museum occupies a room 40 by 80 feet on the first floor of Villard Hall. It contains:

(1) The Condon cabinet, consisting of many thousand specimens, and represents the life work of the late Dr. Thomas Condon. The cabinet is especially rich in vertebrate fossils from the John Day Valley, and contains in addition many invertebrate and paleobotanical specimens. This cabinet is the finest collection of paleontological specimens in the Pacific Northwest.

(2) A display collection of minerals. This is a growing collection of especially fine minerals.

(3) A type collection of minerals. A collection of about 1,500 minerals representative of the ordinary occurrence of the different minerals.

(4) A type collection of rock. This contains the United States Geological Survey educational series of rocks and many added from various sources, illustrating the rocks of the world.

(5) Mineral resources of Oregon. The object of this collection is to illustrate the mineral resources of Oregon. It consists of specimens of ores, building stones, and other mineral material of economic importance. The collection is growing and contributions from those engaged in developing the mineral resources are earnestly desired.

(6) An ethnological collection of tools and implements used by early man.

In the museum is also a cast of the Willamette meteor, the gift of Mr. E. A. Patullo, of Portland. The original meteor was found at Oregon City. It is now in the museum of the Smithsonian Institution and is valued at \$80,000.

BOTANICAL.

The botanical museum consists of the following: (1) The Howell collection, consisting of 10,000 specimens collected for the most part in Oregon, many of which are type specimens; (2) the Leiberg collection, presented to the University by Mr. John B. Leiberg in 1908, consisting of 15,000 sheets of specimens, collected principally from Oregon, Washington, and Idaho, but including also some from other states. The specimens are for the most part duplicates of others deposited in the National Herbarium at Washington by Mr. Leiberg for the Government while he was in its employ, and are extremely valuable. (3) The Cusick collection, consisting of 7,000 specimens of Oregon and other flora. These collections are being constantly added to by gift and exchange. All specimens not already classified are being classified and arranged in cases as rapidly as possible.

ZOOLOGICAL MUSEUM.

The Zoological Museum is located on the third floor of Deady Hall, where ample room is given for the exhibition cases. It 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 salmonidæ 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. To this may 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 Zeigler'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.

The specimens in the museum which are typical of Oregon fauna are few, and nothing would be appreciated more by the department than the gift of skeletons or skulls of Oregon animals or the skins of Oregon birds.

THE UNIVERSITY LABORATORIES

METALLURGY.

The assay laboratory is equipped with furnaces, balances, and bins for the course in the fire assay of lead, gold, and silver. Due to the absence of a suitable supply of coal in the mining districts of Oregon, gasoline furnaces are in use throughout the State. The University laboratory is equipped with the idea of preparing the student to step into the ordinary assaying office of Oregon and do the work required there. Wet assay methods are given by the department of Chemistry.

The metallurgical laboratory is fitted with crushers, pulverizers, and chemical apparatus for testing ores and determining the best methods for treating them on a commercial basis.

The department owns an equipment of mine surveying instruments adequate for instruction in underground and United States deputy mineral land surveying. The latest addition to this equipment is an Ainsworth light mountain transit with interchangeable auxiliary top and side telescope.

The fees for laboratory are each semester, \$15 for assaying, \$10 for metallurgical laboratory, \$2.50 for mine surveying.

GEOLOGY.

Petrology. A working collection of hand specimens of rock is examined and identified by each student. The department also maintains apparatus for grinding thin sections of rocks and is equipped with petrographical microscopes.

Paleontology. The laboratory is especially well equipped for studying the paleontology of Oregon, and is rapidly adding a complete working collection of the fossils of all geologic ages.

MINERALOGY.

Mineralogy. The laboratory is equipped with specimens of minerals. During the course in mineralogy each student is required to identify about 1,000 different specimens.

Laboratory fee for the year's course in mineralogy and crystallography is \$10.

ELECTRICAL ENGINEERING.

The electrical laboratory occupies one-half of the first floor of the Electrical Building, adjoining the University power plant. Electrical power is available from three sources: (1) Three phase alternating current from city service; (2) direct current from a 25-k. w. motor generator set, and (3) direct current from two 10-k. w. compound generators driven from a Russell engine. Other sources of power supply are a 10-h. p. Nagle engine and a 5-h. p. Alamo gasoline engine.

The electrical equipment consists of at least one each of the following pieces of standard apparatus: Series, shunt, compound, and interpole direct current generators and motors; alternating current generators of single-phase, two-phase, and three-phase windings, arranged for parallel operation; alternating current motors of the induction type, with squirrel cage, internal resistance and external resistance rotors, repulsion motor, and synchronous motors; frequency changer; synchronous converter for three-phase or six-phase operation; transformers of various sizes for one, two, three, and six-phase combinations of alternating current; and one 10,000 volt testing transformer. Auxiliaries consist of one two-panel slate switchboard with instruments, generator and feeder switches; plug switchboards for flexible wiring; lamp bank of 200 lamps arranged for 110 or 220-volt direct current, single or three-phase alternating current load; constant current transformer; mercury arc rectifier; storage battery; resistances; choke coils; alternating and direct current arc lamps, open and enclosed; circuit-breakers; switches, etc. Instruments include, current and potential transformers; frequency indicator; power factor indicator; synchroscope; direct current, and single and polyphase watt-hour meters; indicating watt-meters, ammeters, and voltmeters of the Weston, American and Thompson types for measurements up to 30-k. w.

In addition there are numerous pieces of apparatus to illustrate modern practice and to perform various experiments in telephone, telegraph, wireless, and illuminating engineering.

The shop equipment consists of the following:

Pattern shop: Combination rip and cut-off saw, planer, band saw, jig saw, lathes, hand tools, etc.

Forge shop: Down-draft forges equipped with motor driven blower and exhauster, anvils, vises, and the usual auxiliary small tools.

Machine shop: 16-inch and 9-inch engine lathes, planer, shaper, drill presses, centering machine, power hack saw, emery wheels, and small tools for bench work.

All shops are electric motor driven.

CIVIL ENGINEERING.

The drafting rooms comprise two rooms on the second floor of the new Engineering Hall, fitted up with good, substantial tables, stools, filing cases, etc. One room, 42x47 feet, used for students in Drawing and Architecture, will accommodate 120 students. The other room, 22 x 30 feet, accommodates 40 students and is used for advanced classes in drafting.

The blue print room adjoining the drafting room is equipped with a dark room for storing and cutting sensitized paper, with printing frames and with a large sink and rack for washing and drying prints.

A room on the first floor is fitted up with special lockers in which is kept the surveying equipment, each locker containing a complete party outfit for plane, topographic, and railroad surveying. The equipment includes one 7-inch Fauth & Co. theodolite reading to ten seconds; two Berger & Sons' 4-inch theodolites; one Berger & Sons' complete mountain transit; one Fauth & Co. mountain transit with Saegmuller solar attachment; two Wissler transits, one with Burt solar attachment and one with Shattuck's solar attachment; one Heller & Brightly transit; one Gurley solar compass; one Gurley engineer's compass; one Gurley surveyor's compass; one Gurley plane table; one Berger and Sons precise level; one Gurley 20-inch wye level; one Berger & Sons' dumpy level; one Wissler dumpy level, together with rods, poles, tapes, and pins necessary for complete party outfits. In addition to these there is a good equipment of hand instruments, such as aneroids, hand levels, clinometers, a sextant base line measuring apparatus; level trier, and office equipment, which includes a precision pantagraph, Colby protractor, parallel ruler, steel straight edges, and a set of railroad curves, for use in plane, topographic, and railroad surveying.

On the first floor of the building is located also the laboratory for cement testing, the equipment for which includes one Fairbanks' standard briquette machine, steaming and baking ovens, moist closet, Vicat needles, Gilmour's needles, specific gravity apparatus, balances, moulds, sieves, graduates, etc., necessary for all standard tests of hydraulic cement.

The apparatus for testing structural materials other than cement mortars occupies a separate building 30x40 feet, and consists of one Olsen's 200,000-pound Universal testing machine, one Olsen's 30,000-pound Universal testing machine, extensometers, deflexometers, calipers, scales, and other small accessories. In addition to these, the building contains a combination rip and cut-off saw, and a pony planer for the preparation of specimens. The machinery in this laboratory is driven by a 20-horsepower individual electric motor.

CHEMISTRY.

The chemical laboratories are located in McClure Hall, a building especially designed to house the chemistry department. All of the first floor and portions of the basement and second floor are devoted to chemistry. In the basement is the beginner's laboratory, which will accommodate 100 students. This laboratory, at present, is used also by the students in analytical chemistry. The desks are provided with water, gas, and electricity. On one side is a bank of hoods with a very efficient draught, operated by an electrically driven fan. The hoods are supplied with water, gas, steam, waste, and hydrogen sulphide connections. At each end of the room are large drying ovens for drying precipitates, also blast lamps supplied with compressed air. One of the hoods is provided with an electrically heated evaporating plate. Immediately adjacent to the laboratory is the weighing room, containing balances for the use of students doing quantitative work.

On the first floor is the laboratory for organic chemistry with 64 lockers and equipped in all respects as the one just described. Opening from this room are the office and the instructor's private laboratory. Adjoining the organic laboratory is the supply room, from which apparatus and chemicals are dispensed to the students. Across the hall is the lecture room, a well-lighted, comfortable room,

with inclined floor, having a seating capacity of about 120. It has modern equipment throughout. Here also are cases containing a very complete collection of organic and inorganic chemical specimens, for illustrating the class work. Just back of the lecture room is the "preparation" room.

On the third floor is an office room, and adjacent to it, a large laboratory, reserved for special and research work, fully equipped as are the others.

Distilled water is supplied to all laboratories through block tin pipes.

All heavy and inflammable chemicals are stored in an annex adjacent to the main building.

The storeroom is kept well supplied with apparatus and chemicals to meet the requirements of all the usual laboratory courses and to provide facilities for original investigation. Many of the books and the periodicals belonging to the department are, at present, kept in the main office room, which is used also as a reading room. Students are encouraged to make free use of the facilities which it offers. Large additions to the list of chemical periodicals are being made, which will greatly increase the attractiveness and usefulness of the chemical library.

PSYCHOLOGY.

The department of Psychology occupies a large room on the second floor of McClure Hall for lectures, class demonstrations and laboratory experiments. There is also an additional small room for storing apparatus. The rooms are 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 is well supplied with all necessary tables, stands, etc., and is equipped with a large amount of apparatus for experimental purposes.

PHYSICS.

The physical laboratories are located in the basement and first floor of Deady Hall. The laboratories for elementary and general work are located on the first floor, and furnish accommodations for workers in sections of 24. There is a very complete collection of

apparatus for elementary work, available to those who are preparing to teach in the high schools. The additions made in recent years as a result of increased appropriations have been almost entirely in pieces of high grade, of the most substantial and workmanlike character, suited for exact quantitative work, and are well distributed among the various portions of the science. This equipment is supplemented by the collection of lecture-room apparatus, which is especially rich in the departments of light, electricity, and magnetism. Among the more important pieces may be mentioned apparatus for the study of accelerated motion, of harmonic motion, and of central forces; thermometers of a wide range of sensitiveness, calorimeters for precision work, combustion calorimeters, and apparatus for determining the mechanical equivalent of heat; lenses, laboratory telescopes, spectrosopes, spectrometers, and an unusual collection of prisms and diffraction gratings, two very excellent photometers, polarimeter, and a Michelson interferometer; an exceedingly good collection of galvanometers, resistance boxes, ammeters and voltmeters, and a large electro-magnet.

The special laboratory for electrical measurements is located in the basement, and is provided with concrete piers for apparatus requiring unusual stability, and with storage battery, 110-volt direct current, and alternating current of several potentials, and a system of distributing circuits. The laboratory is equipped with apparatus of the highest grade, and of considerable variety. The equipment includes resistance boxes and resistance standards from the Leeds & Northrup Co., Hartmann & Braun, and O. Wolff, ranging from a standard 1-100 ohm to 100,000 ohms, a Kelvin bridge for measuring resistances from 1 ohm to 1-1,000,000 ohm, a high potential storage battery of 2,000 cells capable of furnishing 4,000 volts, a Leeds & Northrup potentiometer, a large collection of galvanometers, portable and reflecting, suited for a wide range of work, ammeters and voltmeters from the Western Electrical Instrument Co. and the American Instrument Co., both for direct and alternating currents, wattmeters, Siemens and absolute dynamometers, standards of self and mutual-inductance, condensers, both of mica and of paper; precision photometers, standardized incandescent lamps, and the usual accessories of switches, commutators and electric motors.

BOTANY.

The Botanical department occupies parts of the third and fourth floors of Deady Hall. The large lecture room and laboratory for the general Botany classes has the regular equipment of work tables, lockers, and compound microscopes as well as provision for the displaying of stereopticon illustrations and charts. This, as are all the other rooms, is furnished with gas and lighted with electricity. The department possesses a fine series of botanical models of flower types and insectivorous plants. The supply of preserved material is constantly being added to and is fairly representative of the various plant groups. Each student is expected to provide himself with dissecting set and drawing material, but the laboratory is prepared to furnish the necessary microscopical slides, reagents and glassware.

Half of the fourth floor is devoted to the Herbarium and Bacteriological rooms. Mr. Thomas Howell has donated his large herbarium, containing many type specimens, to the University. This, together with Mr. Leiberg's gift of 15,000 specimens last year, is available for students in Systematic Botany. Facilities are provided for the study of preservation of local material and for the cataloguing of plants sent from various parts of the State, and the department will be glad to name any specimen that may be sent to the herbarium for determination. The Bacteriological laboratory is well equipped for work with its gas-fitted work tables and lockers combined, its autoclave, steam and hot air sterilizers, incubator, hot water heater and compound microscopes, with oil immersion lenses.

ZOOLOGY.

The Zoological laboratories are situated in Deady Hall. The laboratory on the third floor is used for General Zoology, Histology, and Embryology, and is a large room, 25x37 feet, with a north exposure, thus giving the best light for microscopic work. The apparatus and fittings in this room have been selected with the idea of making the work of each student as independent as possible. Each man is provided with a locker containing all necessary reagents and stains for making microscopic slides. The paraffin ovens are so arranged that each student has his own compartment, thus allowing experiments and special work to be carried on with-

out interference. The laboratory keeps on hand a number of microscopical slides to supplement the work of the student and to illustrate special methods. This same room is used for Embryology. Besides a good collection of chick and pig embryos, the laboratory has a number of models illustrating the development of Echinoderms, Amphioxus, frog, chick, pig, and man.

The Anatomy laboratory is located on the fourth floor and is a light, sunny room, 18x37 feet. There is a good collection of skeletons and skulls illustrative of the various types of reptiles and mammals; an articulated human skeleton and one disarticulated; several human skulls, sectional and disarticulated. In Human Osteology, a course required of all premedical students, the bones of the body are modelled in clay. The room is also used as the Physiology laboratory.

The laboratory is well equipped with digestion ovens and water baths. There is also a good equipment for work on muscle, nervous tissue, circulation, and respiration, by which many of the laws of physiology can be worked out by the students.

PUGET SOUND MARINE STATION.

The Puget Sound Marine Station is located at Friday Harbor, Washington, and is under the joint management of the universities of the Northwest.

Between Bellingham and Vancouver, at the northern end of Puget Sound, there is an archipelago of one hundred and fifty forested islands. Most of these islands are united politically, comprising the county of San Juan of the State of Washington. Underlaid with sandstone, limestone and metamorphic rocks, in part glaciated, they present every condition favorable to biological work. The outer side of the island group is exposed directly to the ocean water of the Gulf of Georgia and the Strait of Juan de Fuca. In the midst of the islands the water is protected and here rare and delicate marine forms are to be found in great abundance. The rugged tide-swept shores of hard rock, which most of the islands present, teem with fixed animals and with those forms that love clean water. Since much of the shore line is comparatively free from sand the region is excellent for marine algæ. Here and there in bays are sandy, gravelly or muddy beaches that abound in shore

forms. The tides rise to a height of 12 feet, affording a great range for those plants and animals which cannot live well below the low tide line. In abundance of forms and of individuals the region is unsurpassed. Men acquainted with all the biological stations of the United States have uniformly pronounced this the richest collecting ground of their experience.

In this archipelago the Puget Sound Marine Station has been established. Friday Harbor is the county seat, a village on San Juan Island with about 400 people. Here is located a salmon cannery affording an opportunity of studying the salmon fisheries and the clam industry. The southern end of San Juan Island is a center for extensive trap fishing and gill netting. In the channels between the islands large beds of shrimp are trawled over by several small steamers engaged in this industry. Near by on the west side of the island is Kanaka Bay where the low tide exposes a gravely or sandy bottom nearly a mile in extent. The biota here is especially abundant and interesting.

THE STATION AND THE EQUIPMENT.

General supplies of common reagents and simple laboratory instruments will be kept in the store room for sale. A small library will be available. Apparatus and reagents for unusual experiments will not be provided unless arranged for beforehand.

The equipment of the station will include a steamer fitted with dredging apparatus for deep water work. This with a transport scow will be used for conveying parties to and from more distant collecting grounds. A gasoline launch and row boats will be available for other expeditions.

Members of the station will be housed in floored tents. This will be delightful because of the ideal climate for summer camping. Straw mattresses will be available, but bedding suitable for rather cool nights should be provided by those attending.

A tent rental will be charged approximating \$2.50 a person. Those so desiring may bring their own tents or make use of the hotel accommodations at Friday Harbor. A co-operative dining hall will be maintained, at which board will be furnished members of the laboratory at cost.

EXPENSES.

In accordance with the usual policy of State institutions, tuition will be free. A laboratory fee of ten dollars for the six weeks will be charged to apply on the expenses of laboratory supplies and material and the maintenance of the dredge, launch, and collecting apparatus. Every encouragement will be given to those who wish to collect and preserve material for class use. For this purpose containers and preservatives will be available and can be secured at reasonable rates.

Necessary personal expenses need not be great. The station will lack the conventionality and expensiveness of a summer resort.

MANAGEMENT.

Although the station was established and is financed by the University of Washington, each institution co-operating has on the board of control one member from the Zoology department and one from the Botany department. The director of the laboratory is appointed by the University of Washington, the board of control acting as an advisory committee in the direction and operation of the work of the station.

COURSES OF STUDY.

The courses in Zoology will cover lectures and laboratory work on the classification, habits, relations to environment, methods of collecting and preservation, of land and sea animals. Regular classes will be held. Every opportunity to do research work will be given to those desiring it.

The courses in Botany will include lectures on General Topics, Cryptogamic Botany, Systematic Botany, Ecology, Algology, etc.

CREDIT FOR COURSES.

Students attending the Summer session at the station should register with the representative of the University of Oregon, in order to get credit for the work.

COURSES FOR TEACHERS OF NATURAL SCIENCE.

The privileges of the station afford unusual opportunities for the college and high school teachers of biological subjects to become

acquainted with many animal and plant forms in their natural habitat. The wide range in the species of animals and plants found here, and the ease with which they can be collected and studied makes this place ideal for those teachers who wish to increase their efficiency by supplementing their text book knowledge with actual experience. Every opportunity for independent research will be at hand for those who wish to carry on such studies. The faculty of the station is made up of men from various institutions and in this way a teacher may have the value of advice and consultation from others of perhaps wider and more varied experience.

ADMISSION TO THE UNIVERSITY

ADMISSION TO THE FRESHMAN CLASS.

The requirements for admission to the freshman class comprise the completion of a four-year high school course, or its equivalent. For full entrance, fifteen units are required. Graduates of high schools who for any reason do not have fifteen units, may enter as conditioned freshman if they have satisfactorily completed at least thirteen units. All conditions must be made up during the first and second years of residence at the University.

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.

REQUIRED SUBJECTS.

The required subjects with the number of units in each are as follows:

COLLEGE OF LITERATURE, SCIENCE AND THE ARTS.

English	3	units
Algebra	1½	units
Plane Geometry	1	unit
One Foreign Language	2	units
History	1	unit
Physics	1	unit
Total	9½	units

COLLEGE OF ENGINEERING.

English	3	units
Algebra	1½	units
Plane Geometry	1	unit
Solid Geometry	½	unit
One Foreign Language	2	units
History	1	unit
Physics	1	unit
Total	10	units

ELECTIVE SUBJECTS.

The balance of the fifteen units may be selected from any of those usually offered as elective subjects by standard high schools, or may include additional Latin, German, History, Mathematics, etc. All students are strongly urged to present four units of English.

The following is a list of elective subjects:

English	1 unit
Latin	1 or 2 units
German	1 or 2 units
Botany	$\frac{1}{2}$ or 1 unit
Chemistry	1 unit
History	1 to 3 units
Zoology	$\frac{1}{2}$ unit
Astronomy	$\frac{1}{2}$ unit
Geology	$\frac{1}{2}$ unit
Physical Geography	$\frac{1}{2}$ or 1 unit
Physiology	$\frac{1}{2}$ unit
Higher Arithmetic	$\frac{1}{2}$ unit
Solid Geometry	$\frac{1}{2}$ unit
Higher Algebra	$\frac{1}{2}$ unit
Trigonometry	$\frac{1}{2}$ unit
Civil Government	$\frac{1}{2}$ unit
Elementary Political Economy	$\frac{1}{2}$ unit
Bookkeeping	$\frac{1}{2}$ unit
Mechanical Drawing	$\frac{1}{2}$ unit
Freehand Drawing	$\frac{1}{2}$ unit
Manual Training	$\frac{1}{2}$ unit

EXCESS MATRICULATION CREDIT.

Students who bring from accredited preparatory schools credits in excess of the requirements for matriculation must pass an examination at the University in the subjects covered by such credits before these may be counted as canceling any part of the 120 semester hours required for graduation. The preparatory subjects in which advanced credits may be so earned are as follows: Latin—Cicero or Virgil; German, French, Greek, Higher Algebra, and Trigonometry.

EXAMINATION IN ENGLISH.

Every student in the College of Literature, Science, and the Arts, 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 six semester hours in English during his freshman year, for which college credit will be given.

Every student in the College of Engineering, 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.

The examination will be held during registration week at an hour and place announced on the bulletin boards.

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 examinations will be held during the first week of the college year.

ACCREDITED HIGH SCHOOLS.

It is the policy of the University so to 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, so 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 half a year or more, five times a 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 at once simplifies the passage of students from high schools into the University, and settles almost, if not quite all the questions of accrediting. It is earnestly hoped, therefore, that all high schools will adopt the State course.

LIST OF ACCREDITED SCHOOLS.

Public High Schools.

Albany.	Junction City.
Ashland.	Klamath Falls, Klamath County
Astoria.	High School.
Athena.	La Grande.
Baker.	Lakeview.
Bandon.	Lebanon.
Bay City.	Marshfield.
Bend.	McMinnville.
Brownsville.	Medford.
Burns, Harney County High	Milton.
School.	Monmouth.
Canby.	Myrtle Creek.
Canyonville.	Myrtle Point.
Central Point.	Newberg.
Clatskanie.	Newport.
Coburg.	North Bend.
Condon, Gilliam County High	Nyssa.
School.	Ontario.
Coquille.	Oregon City.
Corvallis.	Park Place.
Cottage Grove.	Pendleton.
Cove.	Pleasant Hill, Union High
Creswell.	School No. 1.
Dallas.	Portland: Lincoln, Washington,
Dayton.	and Jefferson High Schools.
Drain.	Prairie City.
Elgin.	Prineville, Crook County High
	School.

Enterprise, Wallowa County	Rainier.
High School.	Roseburg.
Estacada.	Salem.
Eugene.	Seaside.
Fossil, Wheeler County High	Sheridan.
School.	Silverton.
Forest Grove.	Springfield.
Glendale.	St. John.
Grants Pass.	Sumpter.
Gresham.	Tillamook.
Halsey.	The Dalles.
Harrisburg.	Toledo.
Heppner.	Union.
Hermiston.	Vale.
Hillsboro.	Wasco.
Hood River.	Weston.
Ione.	Woodburn.
Jefferson.	
Joseph.	

Private Schools.

Baker, St. Francis Academy.
Milton, Columbia Junior College.
Mt. Angel, Mt Angel College.
Pendleton, St. Joseph's Academy.
Portland—Allen Preparatory School; Columbia University; Hill
Military Academy; Portland Academy; St. Helen's Hall; St. Mary's
Academy; St. Joseph's School; Y. M. C. A. Preparatory School.

ADMISSION FROM OTHER STATES.

Graduates of high schools outside of Oregon will be admitted to the University without examination when such schools are accredited to their own state university or to universities of equal rank.

ADMISSION TO ADVANCED UNDERGRADUATE STANDING.

Advanced standing will be given students coming from institutions of collegiate rank, who can satisfy the committee on advanced credits that the courses offered are the equivalent to those given by

the University. All applications for advanced standing, if not made before the opening of college, should be made as soon as possible after registration in the University, on blanks furnished by the Registrar.

REQUIREMENTS FOR ADMISSION TO SPECIAL STUDENT STANDING.

The privileges of a special student 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.

Special students shall be of two classes, as follows:

(1) Persons not candidates for a degree, who have met all the requirements for entrance to the freshman year, to be known as collegiate special students. They may be permitted to take one or more college courses for which they are fitted and shall be subject to the nine-hour rule, except that when registered for fewer than nine hours they must secure credit in them all.

(2) Persons of maturity, twenty years of age or over, and teachers in public or private schools, who present satisfactory credentials and testimonials, to be known as irregular special students. They may be permitted to take one or more college courses for which they are fitted, subject to the condition that they must complete satisfactorily 60 per cent of the work undertaken.

All applications for special student standing must be passed upon by the Committee on Special Students, who reserve the right to reject any petition, as they may deem wise, and to discuss and change any proposed program of studies. Students, other than those of mature years, must give evidence of a definite object to be attained by the courses sought.

Students who have met all the requirements for entrance to the freshman year, and are candidates for a degree shall be considered regular students, even though for sufficient reasons they may be permitted to take less than the minimum number of hours. They shall be subject to the nine-hour rule, except that when registered for fewer than nine hours they must secure credit in them all.

DESCRIPTION OF PREPARATORY SUBJECTS.**ENGLISH (THREE UNITS).**

All regular students must present at least three units (fifteen 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 six semester hours). The examination is designed to test the student's ability to write clear, correct, idiomatic English. He will be asked to criticise an extract of classic prose under a few essentials of good English; 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. (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.

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: A Tale of Two Cities.

Lowell: Vision of Sir Launfal.

Goldsmith: Vicar of Wakefield.

Hawthorne: The House of Seven Gables.

Whittier: Snowbound and Other Poems.

II. *Books for Thorough Study.*

Shakespeare: Merchant of Venice.

Franklin: Autobiographpy.

TENTH GRADE.

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

Longfellow: Courtship of Miles Standish.

Addison: Sir Roger de Coverly.

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 Illiad, I, VI, XXII, XXIV.

ELEVENTH GRADE.

- I. *Books for General Reading and Composition Work.*
Tennyson: Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur.
Emerson: Two Selected Essays.
Carlyle: Essay on Burns.
Burns: Cotter's Saturday Night and Other Poems.
Thackeray: Henry Esmond.
DeQuincy: Joan of Arc, and The English Mail Coach.
- 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.
Eliot: 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.

ELEMENTARY ALGEBRA ($1\frac{1}{2}$ UNITS).

The requirements in Algebra embrace the following subjects: Factors, common divisors, and multiples, fractions, involutions, including the binominal theorem for positive integral exponents; evolution, theory of exponents, radicals, and equations involving radicals, ratio, and proportions, 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.

Wells' Algebra for Secondary Schools, the State text-book; Slaughter and Lennes' Elementary and Advanced Algebra, or Young and Jackson's Algebra.

PLANE GEOMETRY (1 UNIT).

Required of all students. The course calls for five recitations per week for one year, completing the State text-book. Wentworth's Plane Geometry, revised edition, including two-thirds of the exercises; Shutt's Plane Geometry, with all the exercises.

SOLID GEOMETRY ($\frac{1}{2}$ UNIT).

All students of engineering are required to take this course, and those preparing for scientific work are expected to do so. Elective for others. The work covers three books of Wentworth's Solid Geometry with a number of the exercises, and calls for five recitations per week for one semester.

HIGHER ARITHMETIC ($\frac{1}{2}$ UNIT).

A one semester course, five recitations weekly, covering the work in Higher Arithmetic by Wells, the State text-book. Elective.

ADVANCED ALGEBRA ($\frac{1}{2}$ UNIT).

A one semester course, five recitations weekly, presupposing the completion of Elementary Algebra. Text-book, Advanced Algebra by Hawkes. Elective.

PLANE TRIGONOMETRY ($\frac{1}{2}$ UNIT).

A one semester course, five recitations weekly, covering the work in Plane Trigonometry (with tables), second revised edition, by Wentworth. Elective.

The completion of the courses in Advanced Algebra and Plane Trigonometry permits the student to begin the study of Analytical Geometry and Calculus on entering the University.

HISTORY (1 UNIT).

Five recitations a week for one year. 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: Myer's 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 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 the 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 Millikan and Gale; in Botany to Bergen's Elements; and in Physical Geography, any standard text.

PHYSICS (1 UNIT).

A full year's work in Physics is required of all students entering the University. This work, to be accepted, must include the thorough study of a satisfactory text-book with recitations and written tests, and a substantial amount of laboratory work done by the student himself in a suitably equipped laboratory under competent supervision. The primary purpose of this laboratory work should be instruction, and with this end in view the laboratory period should find a regular place on the school schedule, the list of experiments should be carefully selected to illustrate clearly the most important principles of the subject, and the observations and conclusions carefully recorded in a permanent note book.

Some faults to be avoided in the work of the laboratory are: The omissions of large subdivisions of the subject, as for instance the entire topic of electricity and magnetism; substituting training in manipulation for the illustration of scientific laws; the slipshod use of rough and qualitative experiments only; waste of time and distraction of attention from the real purpose of an experiment by over-insistence on accuracy of results; failure to record facts actually observed; failure to see or state the point; lack of clearness in notes, concealing observations, deductions and conclusions in a mass of writing.

Students of Engineering and others planning to take more advanced work in Physics will find that such adequate preparation will save much valuable time in the University.

The department plans the early publication of a Bulletin of Suggestions for Teachers of Physics, including some hints on the equipment and conduct of the laboratory.

CHEMISTRY (1 UNIT).

In cases where Chemistry offered is considered by the head of the department of Chemistry to be 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 two units college credit in case it was not so used.

GREEK (2 UNITS).

Five recitations per week each year.

First Year—Greek lessons and Xenophon's *Anabasis* begun.

Second Year—Xenophon, four books of the *Anabasis*.

FRENCH (2 UNITS).

Five recitations per week. 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 (2 TO 4 UNITS).

Five recitations per week. Written exercises and grammar work and systematic training in German pronunciation. As much drill as possible in reading German prose and poetry.

LATIN (2 TO 4 UNITS).

Five recitations a week each year.

First Year—Latin lessons and grammar, and *Viri Romæ*, 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*.

ZOOLOGY ($\frac{1}{2}$ UNIT).

The minimum time to be devoted to zoology in order to receive credit for admission to the University should be one hour's laboratory work daily for a half year. This should be supplemented by field work and reading under the direction of the teacher.

The following series of animals is recommended: (1) Protozoa (*Amœba* and *Paramœcium* or *Vorticella*); (2) a *Cœlenterate* (*Hydra*); (3) an *Echinoderm* (*Sea-urchin* or *Starfish*); (4) an *Annelid* (*Earthworm*); (5) a *Parasite Worm* (*Cestode*); (6) a *Decapod Crustacean* (*Crayfish*); (7) an *Orthopterous Insect* (*Grasshopper*, and comparison with other *Orthoptera*); (8) a *Coleopterous Insect*; (9) a *Lepidopterous Insect*, with larva and

pupa; (10) a Hymenopterous Insect; (11) a Pelecypod Mollusc (Freshwater Mussel); (12) an Amphibian (Frog, with metamorphosis).

Laboratory work should be directed not merely toward a study of animal structure but as far as practicable toward the study of habits and reactions. It should furnish the basis for the classroom discussion of principles, especially of evolution.

PHYSIOLOGY ($\frac{1}{2}$ UNIT).

For preparation in physiology, the method of study should combine certain work of a practical nature with lessons from the text-book. This practical work should embrace the observation of general physiological phenomena through experiments so simple that the pupil can make most of them, supplemented by demonstrations in anatomy and microscopy carefully prepared by the teacher. Expensive apparatus is not only unnecessary for this work, but it is really out of place. Even the microscope should be used only as an occasional accessory to what the pupil may observe with unaided vision. The keeping of notes and sketches, recording clearly and systematically the more important observations, should accompany the course throughout.

In every instance, the student should be made familiar with the more important results of recent years in sanitary science. To this end, the teacher is urged to use freely such material as is contained in Part II of Hough and Sedgwick, the *Human Mechanism and the Sanitation of Its Surroundings*.

The minimum amount of work for which preparatory credit will be given is the equivalent of five recitations and laboratory exercises weekly for half the school year.

BOTANY (1 UNIT).

The work required of those who offer botany for admission is expected to include as much as a competent teacher, trained in laboratory methods, can accomplish with his classes in a year. No attempt is here made to indicate the exact extent of the ground to be covered, for the teacher should have large liberty in selecting material and topics as occasion requires; but it is recommended that one-half year be given to the form, structure, and habits of flowering plants, while the other half year may be given to the

natural groups of plants, physiology, and the adaptation of form and structure to environment.

The following text-books are recommended as offering numerous and helpful suggestions: Atkinson's *Elementary Botany*; Bailey's *Botany*; Barnes' *Plant Life*; Bergen's *Foundations of Botany*; Coulter's *Plant Relations and Plant Structures*; Spalding's *Introduction to Botany*; Stevens' *Introduction to Botany*. Ganong's *Teaching Botanist* is one of the most useful books for the teacher.

MECHANICAL DRAWING ($\frac{1}{2}$ UNIT).

This course should be designed to give the student thorough practice in the use and care of drawing instruments, such as; ruling pen, compass, bow pen, T-square, triangles, architect's scale, etc.

The drawing should include (1) geometrical drawings, (2) plans and elevations of simple objects, drawn to scale, dimensioned and showing proper conventional shade lines, (3) line shading, or the representation of the relief of curved and plane surfaces by means of lines.

Careful attention should be given to the lettering on the drawings; enough of it to give the student fair practice and of some standard freehand style.

Neatness and accuracy are prime essentials throughout the course.

High schools are urged to give mechanical drawing as an elective course for those contemplating taking up the study of engineering at the University. Freshman entering the University with a good course in mechanical drawing will be able to complete the University course in drawing during the first semester and descriptive geometry during the second. Freshman entering without mechanical drawing take a year to complete the course in drawing.

FREEHAND DRAWING ($\frac{1}{2}$ UNIT).

The object of this course should be to develop accuracy of eye and dexterity of hand. Straight lines, geometrical figures, ornaments, and outline drawings of solids should be carefully and accurately executed both in pencil and ink. Shading, if used, should be applied sparingly and with care.

The eye should be trained in the estimation of distances, dimensions and proportions, rather than in the discrimination of lights and shades.

CIVIL GOVERNMENT ($\frac{1}{2}$ UNIT).

One-half unit may be offered in civil government. The equivalent of one-half year's work in the third or fourth year of a high school. A knowledge of the chief organs of local, state, and national government, their relations to each other, and the important functions assigned to each group. Some knowledge of historical development will be required, and the student should offer with civil government at least one-half unit in American history.

ELEMENTARY POLITICAL ECONOMY ($\frac{1}{2}$ UNIT).

(a) A half year's work on the principles of political economy as presented in a good standard book will be accepted; or (b) industrial history and the elements of economic theory studied on the basis of a good standard text-book.

ASTRONOMY ($\frac{1}{2}$ UNIT).

Elementary course in general astronomy as presented in any good modern text-book.

BOOKKEEPING ($\frac{1}{2}$ UNIT).

A text-book should be employed with exercises so arranged that no two pupils will do exactly the same work, and no credit should be allowed unless the work is done neatly, accurately and at a satisfactory rate of speed. It is suggested that double periods be provided, and all work be done in class under the eye of the instructor.

GEOLOGY ($\frac{1}{2}$ UNIT).

Five recitations per week for one half year, with text-book similar or equal to Le Conts' Compend of Geology, Brigham's or Norton's Elements of Geology.

PHYSICAL GEOGRAPHY ($\frac{1}{2}$ OR 1 UNIT).

Five recitations a week for either a half year or a full year, using as a text Tarr, Davis, Gilbert & Brigham, Hinman, or any other standard text-book. Laboratory should be taken in connection with the recitation work.

GENERAL INFORMATION

PUBLICATIONS.

The University of Oregon Bulletin is published 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. The following are the bulletins of the new series:

VOL. A.

1. Public School Libraries. Prof. Luella Clay Carson.

VOL. I.

1. Education. Prof. H. D. Sheldon. English. Prof. Luella Clay Carson. Nov. 1903. Exhausted.
2. Beowulf. Prof. I. M. Glen. January, 1904.
3. Water Power on the McKenzie River. Prof. E. H. McAlister. March, 1904. Exhausted.
4. Mineral Resources and Mineral Industries of Oregon for 1903. Compiled by the Department of Chemistry. May, 1904.
5. Catalogue for 1903-04. Exhausted.

VOL. II.

1. Water Power on the Santiam. Prof. E. H. McAlister. November, 1904. Exhausted.
2. Tendencies in Recent American Road Legislation. Prof. F. G. Young, January, 1905. Exhausted.
3. General Register of the University of Oregon, 1873-1904. March, 1905. Exhausted.
4. General Announcements for 1905-1906. Exhausted.
5. Catalogue for 1904-05. Exhausted.

VOL. III.

1. State Normal School Systems of the United States. Prof. H. D. Sheldon. November, 1905.

2. Annual Report of the President of the University, January, 1906. Exhausted.
3. Some Botanical Notes from the Biological Laboratory. Prof. Albert R. Sweetser. March, 1906.
A New Fossil Pinniped. Prof. Thomas Condon. Supplement to No. 3. March, 1906. Exhausted.
4. Catalogue of the University of Oregon, 1905-06. May, 1906. Exhausted.
5. A Student's Geological Map of Oregon, with Notes. Ellen Condon McCornack. July, 1906.

VOL. IV.

1. State Systems of High School Control. Henry Davidson Sheldon. November, 1906.
2. The University Library, Its Conditions and Needs. Joseph Schafer. December, 1906. Exhausted.
3. Annual Report of the President of the University. January, 1907.
4. A Brief List of Books on Nature Study. Prof. H. D. Sheldon.
Relation of Leguminous Plants to Soil Fertility. Prof. A. R. Sweetser. February, 1907.
5. Dentaria (Spring Beauty). Prof. A. R. Sweetser. March, 1907.
6. General Announcements and Summer Session. April, 1907. Exhausted.
7. Catalogue of the University of Oregon, 1906-07. May, 1907. Exhausted.
8. In Memory of Thomas Condon. June, 1907. Edited by Prof. Luella Clay Carson. Exhausted.
9. Oregon High School Debating League. Prof. Edgar E. DeCou. October, 1907.

VOL. V.

1. Rules of the Faculty and Board of Regents. November, 1907.
2. Correspondence Department, Catalogue. December, 1907.
3. President's Report. January, 1908.
4. General Register University of Oregon. February, 1908. Exhausted.

5. Student Loan Funds. President P. L. Campbell. March, 1908.
6. Catalogue of the University of Oregon, and Announcements for 1908-09, April, 1908. Exhausted.
7. Summer Session and Announcements, 1908. May, 1908.
8. Country High School Organization, and the Training of Teachers. September, 1908.

VOL. VI.

1. Catalogue and Announcements Correspondence Study Department. October, 1908.
2. Oregon High School Debating League. Prof. Edgar E. DeCou. November, 1908.
3. The Acquisition of the Oregon Territory. Part I. Discovery and Exploration. Prof. Joseph Schafer, Ph. D. December, 1908.
4. Report of the President of the University, with Reports of Steward and Registrar. January, 1909.
5. Procedure for Tax Reform in Oregon. Prof. F. G. Young. February, 1909.
6. Illustrated Bulletin of General Information. March, 1909. Exhausted.
7. Catalogue of the University of Oregon and Announcements for 1909-10. April, 1909.
8. The University of Oregon Summer Session 1909. May, 1909. Exhausted.

VOL. VII.

1. Catalogue and Announcements Correspondence-Study Department. September, 1909.
2. The Oregon High School Debating League. October, 1909.
3. A Study in Roman Coins of the Empire. November, 1909.
4. The University of Oregon School of Music. December, 1909.
5. Report of the President of the University, with Reports of Steward and Registrar. January, 1910.
6. School of Education. February, 1910.
7. The University of Oregon Summer Session 1910. March, 1910.

8. Catalogue of the University of Oregon and Announcements for 1910-11. April, 1910. Exhausted.
9. College of Engineering. Announcements 1910-11. May, 1910.
10. Catalogue and Announcements Correspondence-Study Department 1910-11. June, 1910.

VOL. VIII.

1. The problem of Teaching Rhetoric in the High School. Prof. Edward A. Thurber. September, 1910.
2. Oregon High School Debating League. Prof. Edgar E. DeCou. October, 1910.
3. First Annual Educational Conference, University of Oregon, June 20-21, June 23-24, 1910. November, 1910.
4. Second Annual Commonwealth Conference, University of Oregon, February 11-12, 1910. December, 1910.
5. Report of the President of the University, with Reports of Steward and Registrar. January, 1911.
6. General Register of the University of Oregon, 1873-1910. February, 1911.
7. The University of Oregon Summer Session 1911. March, 1911.
8. Catalogue of the University of Oregon and Announcements for 1911-12. April, 1911.

VOL. IX.

1. The Development of Banking in Oregon. James Henry Gilbert. September, 1911.
2. Oregon High School Debating League. October, 1911.
3. Rules of the Faculty. November, 1911.
4. The Last of the Sequani. A Study in Reconstruction. Frederic Stanley Dunn. December, 1911.
5. The Economics of Oregon's Good Roads Problem. F. G. Young. January, 1912.
6. Jesse Applegate. Joseph Schafer. February, 1912.
7. The University of Oregon Summer Session, 1912. March, 1912.

The Oregon Emerald is published twice a week 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, with eight or ten assistants. The various members of the staff are elected during the second semester and hold office for one 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.

The Oregon Engineer is published by the students of the various departments of Engineering in conjunction with the Oregon Monthly. It has general circulation among the student body and among the engineers of the State. Its object is the dissemination of engineering news and the strengthening of the engineering work of the University. It gives all students interested an opportunity to contribute articles of interest. The control is vested in an editor-in-chief and a business manager, with their assistants.

The Oregana is published annually by members of the junior class. It is a book of 400 pages and from 700 to 1,000 copies are issued. Its object is to advertise the University, and to that end it includes stories of University life, cuts of buildings and grounds, drawings, campus scenes, class records, etc.

SOCIETIES.

LITERARY.

The Laurean and Eutaxian Corporation was organized with a State charter in 1877 to further the literary interests of the societies of the University. Its library was for years the sole library of the University, and it furnished the nucleus for the present library.

The Laurean Society was founded in the first year of the University. Its purpose is to give its members "growth and development of mind, together with readiness and fluency of speech," and for this object a debate is held every Saturday evening. Declamations and orations by the members, and addresses by professors and other eminent men are also part of the weekly program. Occasionally joint social meetings are held with the other two societies, and an annual contest with the Philologian Society, held in December, is a part of the debating system.

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 parliamentary usage. The usual exercises are a short literary program and a debate. 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.

The Eutaxian Society is the literary society of the women of the University. It was organized in 1877, and has given valuable training to the numbers of students who from year to year have planned its work and carried out its programs. The society is well organized and has a good, active membership. Meetings are held every Wednesday evening from 7 to 8 o'clock. The program, which is varied from time to time, includes prepared and impromptu addresses, reviews and discussions of current events, debates, and parliamentary drills. Resident alumnæ members take an active part in the work of the society, a fact which adds greatly to the strength and value of the organization.

ENGINEERING.

The Engineering Club was organized November 30, 1904. Engineering students in Sophomore, Junior and Senior classes are eligible for membership. The club holds its meetings on the first and third Fridays of each month. Officers are elected for the whole year.

The purpose of the club is to stimulate an interest among its members in the whole field of engineering, and to encourage original research and observation in practical engineering problems. The programs, which are partly illustrated, consist of papers and addresses by members of the faculty and students.

INSTITUTE OF ELECTRICAL ENGINEERS.

The University of Oregon Branch of the American Institute of Electrical Engineers was organized November 11, 1910. Meetings are held monthly throughout the school year. At these meetings papers are read by members of the faculty, students, and practicing engineers. The papers presented are open to discussion by the members of the Branch. The facilities of the Department of Electrical Engineering are available for demonstrating the operation of the apparatus under discussion and demonstrations of new apparatus are given from time to time. All University instructors and students are eligible to membership.

DER VEREIN GERMANIA.

Der Verein Germania was organized at the University of Oregon by students in the department of German. Meetings are held every two weeks, at which musical and literary programs and discussions are given in German. The purpose of the club is to familiarize its members with German customs and life, and to give them a more fluent command of the language. All students in the department of German are eligible for membership.

THE DRAMATIC CLUB.

The Dramatic Club is composed of students of the University. All students are eligible who are successful in the try-outs held each fall. The purpose of the organization is to stimulate an interest in dramatic art and to develop latent talent among the members. At least two public rehearsals are given each year in addition to those given only before the club.

CHEMISTRY CLUB.

The Chemistry Club is an organization meeting at 4 P. M. every Monday for the discussion of matters of current interest in the chemical world. The programs are made out under the supervision of a committee of students selected by the club for the purpose. The discussions are illustrated, where the subject matter will permit, by demonstrations, lantern slides, etc. All meetings are open to whomever may be interested. Announcements are to be found each week in the college papers.

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. Between 45 and 50 per cent of all the men in the University are members of the Association.

The Association maintains an employment bureau in connection with the Administration 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 may, if they desire, secure advice as to rooms if they send word before coming to the University, telling the price they wish to pay.

A Students' 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 on application. Apply to the General Secretary.

Address all inquiries to the General Secretary of the Y. M. C. A., University of Oregon, Eugene, Oregon.

The Young Women's Christian Association was organized in March, 1894. Its purpose is to crystallize 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. Devotional meetings are held every Monday afternoon at 4 o'clock in the Association rooms. 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.

The Publicity Committee of the Young Women's Christian Association has undertaken the work of an employment bureau to secure employment for girls who wish to take that means of helping themselves through college. A thorough canvass of Eugene is conducted each year and a list made of desirable places of this sort. Work can easily be found in pleasant homes which will enable a young woman to make her own way fully or in part.

ORATORICAL ASSOCIATIONS.

In addition to the University instruction in Elocution and Oratory, an active and earnest interest in public speaking is fostered and maintained through the agency of voluntary associations of students, which arrange and conduct debates and contests and co-operate with similar organizations in other institutions.

INTER-STATE ORATORICAL ASSOCIATION.

The Inter-State Oratorical Association was organized in 1903 by representatives of the University of Idaho, University of Washington, and University of Oregon. In 1910 the University of Idaho withdrew from the Association, and the University of Montana took its place. An annual oratorical contest is held each year some time between the first of May and the last of Commencement week, in turn at each of the three universities. All legitimate expenses of the contestants are paid. The King County Bar Association, of the State of Washington, offers annually a prize of \$75 to the winner of the contest and \$25 to the holder of second place. The contest for 1911 was held at the University of Washington, and was won by Charles W. Robison of the University of Oregon. The contest for 1912 will be held at the University of Montana. Mr. Carlton E. Spencer will represent the University of Oregon.

INTER-COLLEGIATE ORATORICAL ASSOCIATION.

The Inter-Collegiate Oratorical Association is an organization of the following colleges and universities of Oregon: Pacific College, McMinnville College, Albany College, Oregon Agricultural College, Pacific University, Willamette University, and the University of Oregon. An annual contest is held each year in turn at each of the colleges interested. The contest for 1912 was held at Pacific University and was won by David Pickett of the University of Oregon.

INTER-STATE DEBATING LEAGUE.

The Inter-State Debating League was organized in 1906, consisting of the University of Washington, University of Idaho, and

University of Oregon. In the fall of 1911, the University of Idaho withdrew from the league, and Stanford University of California, entered. Each institution has two teams, which support opposite sides of the question. The affirmative team remains at home and the negative team goes abroad. The contests are held on the last Friday in March of each year.

UTAH-OREGON DEBATING LEAGUE.

The annual debate is held between the University of Utah and the University of Oregon, the place of meeting alternating between the two universities. Each university is represented by two men.

OREGON HIGH SCHOOL DEBATING LEAGUE.

The Oregon High School Debating League was organized to promote debating in the high schools of the State, and has been successful much beyond the expectations of the organizers. The high schools enrolled are divided into five districts—Southern, Central, Eastern Oregon, Columbia River, and Coos Bay. The champions of the various districts debate each other, and the final debate for the championship of the State is held each May at the University of Oregon, the winning team being awarded the beautiful sterling silver "Regents Cup." The officers of the league are President, Supt. W. R. Rutherford, McMinnville; Secretary-Treasurer, Mr. J. LeRoy Johnson, University of Oregon.

ATHLETICS.

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. The football, track, basketball and tennis teams and baseball nine, are all under its direct supervision.

The members of the Athletic Council for the present year are: Dr. H. B. Leonard, Prof. Joseph Schafer, and Mr. W. L. Hayward, representing the Faculty; Judge L. T. Harris, Mr. G. W. Hug, and Mr. Benjamin Williams, representing the Alumni Association; and Mr. Earl R. Latourette, Mr. Homer Jamison, and Mr. William Neill, representing the Student Body.

INFRA-COLLEGIATE ATHLETICS.

The University emphasizes as far as possible infra-collegiate athletics, with the view that the greatest good may result to the greatest number. Inter-class and inter-club teams in basket-ball, tennis and baseball, for men, and in basketball and tennis for women, bring to many who would otherwise take little or no exercise a very large benefit in the way of physical relaxation and recreation. Aside from the regular college teams, the 10 or 11 inter-club and the four inter-class teams in basketball during the winter, and the same in baseball and tennis during the fall and spring, bring out approximately 300 to 350 men, and in basketball and tennis 200 to 250 women, who would, under other circumstances, miss the value to brain and body of an hour daily of vigorous, healthful, out-door exercise.

GIRLS' TENNIS CLUB.

Wishing to provide tennis courts for the use of the women of the University and to encourage as many as possible to participate in tennis as an out-of-door sport, a number of the young women organized in the spring of 1908 The Girls' Tennis Club. They secured by their own subscriptions and a gift from the Board of Regents, the erection of three standard courts on the campus, and hold annually in the spring a tennis tournament, the winner of which receives a silver cup. Membership has now become purely honorary, selection being based upon individual proficiency in playing.

MUSICAL.

The University of Oregon Glee and Mandolin Club are student organizations, open to all students who are successful in the tryout held during the first week of the University year. The Glee Club is composed of sixteen, and the Mandolin Club of twelve or more men. Yearly Thanksgiving concerts are given in Eugene and Portland, and a tour of the State is made during the Christmas holidays.

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

The University Band is open to all students who are successful in the tryout. The band furnishes music for games, rallies, and other student affairs. It offers valuable training to those interested in this kind of music.

STUDENT LOAN FUND.

Through the generosity of Mr. William Ladd, of Portland, Mr. A. S. Roberts, of The Dalles, and the Class of 1904, the University Loan Fund was begun. Although for a number of years the total amount of the fund reached only a little more than \$500, yet its benefits were large and through it many students were enabled to complete their college course who otherwise could not have done so. At the beginning of 1909 Senator R. A. Booth, of Eugene, became interested and added the sum of \$500. Through his efforts a number of others, among whom were Mr. Theodore B. Wilcox and J. C. Ainsworth, of Portland, and Mr. John Kelly, of Eugene, have made substantial donations. Two or three other donors have requested their names not to be published. On February 12th, 1910, a check for \$1,000 was received through Hon. J. N. Teal from the D. P. Thompson estate, the largest single gift ever made to the fund, bringing the grand total up to \$2,700. These very generous donations of the year made it possible more nearly to meet all of the requests for assistance, but the demand for loans is considerably larger than the funds available. At present loans are not ordinarily made before the beginning of the sophomore year. There has been no considerable space of time when any large amount of money was lying idle in the bank. Loans are made to deserving students at a low rate of interest and every precaution is taken to safeguard against loss.

The University hopes to establish a student loan fund of from \$5,000 to \$10,000, and to this end invites correspondence from any who may desire to contribute either large or small amounts. It believes that a loan is preferable to an outright gift in the form

of a scholarship. The fund is to be loaned under the direction of the President of the University and a committee of the faculty to boys and girls all over Oregon, who desire to complete a college education, but who cannot do so without assistance.

When the fund has reached a sufficient size, it is planned to make a loan of \$100 a year to deserving students, to be repaid usually within two years after graduation. A low rate of interest will be charged, and the signature of the student, and one other person approved by the committee will be required. It is planned also to have ten men guarantee the fund against loss. The University believes that no better way can be devised for aiding worthy students, than that of a well managed loan fund.

TEACHERS' BUREAU.

The University maintains a teachers' bureau. It does not guarantee to find positions for all its graduates, but it will assist them in every way possible to find good locations. During the past few years the demand for well trained university graduates to fill positions as principals and teachers in the high schools of Oregon has been much above what the University has been able to supply. All assistance which the University can give is freely at the command of its students and graduates. No one is recommended for a teaching position who has not fulfilled the requirements of the College of Education.

LECTURES.

A number of the members of the Faculty are available for institutes and lectures. They are glad to deliver addresses or help in institutes at any time that does not conflict too much with their regular University work. Letters should be addressed to the members personally or to President P. L. Campbell, or to the Registrar.

GENERAL ASSEMBLY.

A *General Assembly* of the University is held each Wednesday at 10 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.

MISCELLANEOUS.

The Faculty Colloquium, composed of all the members of the Faculty, meets once every two weeks. Papers are read by various members on special subjects of interest.

Lectures—Frequent lectures by invited guests from Oregon and other states are given to students upon subjects allied to the courses 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 goodfellowship among the alumni." The annual meeting is held at Eugene during Commencement Week. The dues of the Association are one dollar a year, fifty cents of which goes toward paying the general expenses and fifty cents for the subscription to the Oregon Emerald. The Emerald is sent to each member of the Association. The officers for 1911-12 are: President, Woodson T. Slater; First Vice-President, Miss Ida Patterson; Second Vice-President, Ray Goodrich; Secretary-Treasurer, Chas. W. Converse, '02. Members of the Athletic Council: L. T. Harris, '93; Mr. Benjamin Williams, '10; George W. Hug, '07.

The Associated Students 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, secretary, and two members at large. Officers are elected on the second Wednesday in May of each year.

The Council of Women Students holds regular meetings every two weeks for the discussion of matters pertaining to the welfare of the University women. Each club, sorority, and dormitory has one representative and an equal number of representatives are chosen by the girls not living in clubs. All members of the Council are seniors.

UNIVERSITY REGULATIONS CONCERNING UNDER-GRADUATE STUDENTS.

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*.

At the beginning of the second semester, one day only is given to registration. Matriculated students registering later than that day must pay a late registration fee of two dollars.

STUDY CARD.

Each student at the time of his registration at the beginning of each semester will receive from the Registrar a blank Study Card for the selection of studies for the semester. This card, properly filled out and signed by the student's major professor, and the instructors with whom work is taken, must be filed with the Registrar within three days of the date of registration. Students failing to file their Study Cards within the time specified shall pay a fee of \$2.00 before being admitted to classes.

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.

If because of difficulties with the schedule, or if for any other reason satisfactory to his adviser, any student wishes to make a change in enrollment he may do so by obtaining a "Change of Enrollment Card" from the Registrar and complying with the requirements indicated upon the card itself, as follows: This card to be effective, must be made out, dated, and signed by the adviser

of the student in whose favor it is drawn. The date of use, except after special faculty action, must not be later than ten days from the date upon which the student registered in the University. The Registrar and all instructors are forbidden to honor it under any other conditions.

The instructor from whose course the change is made signs this card as an acknowledgment that he has been duly notified of the change. The instructor in the new course acknowledges by his signature that formal enrollment has been made.

Changes of course later than *ten days* after registration shall not be made until after favorable action by the Committee on Revision of Students' Courses, but petitions for change of course will not be considered by the committee after *November 1st*, for the first semester, and after *March 1st*, for the second semester. Petitions for change of course must be approved and signed by the major professor of the petitioner, and the instructor of the course which the student desires to enter.

WITHDRAWAL FROM CLASS.

In case of a student leaving a course without substituting other University work for it the act is to be regarded as a withdrawal upon fulfillment of the following conditions: The act is to be initiated either by the student himself or his adviser; the adviser, after consultation with the instructor giving the course from which withdrawal is desired, must approve; the withdrawal is then effective upon filing the withdrawal card, properly executed, with the Registrar. But withdrawal shall not be granted within one month of the final examination period. The mark "W" in semester grade reports is to be held as applying exclusively to the cases coming under this paragraph. Withdrawal cards may be obtained from the Registrar.

WITHDRAWAL FROM THE UNIVERSITY.

Students withdrawing from the University shall take either a *leave of absence* or a *card of withdrawal*. Failure to comply with this regulation will lay the student liable to a grade of "F" for all his courses. These cards may be obtained from the Registrar.

DISMISSAL FROM COURSES.

Dismissal from a course may be made at any time by the instructor in charge and shall be effective after consultation upon the part of the instructor with the adviser of the student concerned. Such dismissal shall be considered a failure, and shall be indicated upon the semester grade reports by "F."

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.

Students having deficiencies resulting from failure shall not be allowed to take any extra hours for graduation on account of such deficiencies.

MINIMUM AMOUNT OF WORK ACCEPTED.**REGULAR STUDENTS.**

The failure on 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.

SPECIAL STUDENTS.

1. Persons, not candidates for a degree, who have met all the requirements for entrance to the freshman year, are known as Collegiate Special Students. They may be permitted to take one or more college courses for which they are fitted and shall be subject to the nine-hour rule, except that when registered for fewer than nine hours they must secure credit in them all.

2. Persons of maturity, twenty years of age or over, and teachers in public or private schools, who present satisfactory credentials and testimonials, are known as Irregular Special Students. They may be permitted to take one or more college courses for which they are fitted, subject to the condition that they must complete satisfactorily 60 per cent of the work undertaken.

All applications for special student standing must be passed upon by the Committee on Special Students, who reserve the right to discuss and change any proposed program of studies. Students other than those of mature years, must give evidence of a definite object to be attained by the courses sought.

Students who have met all the requirements for entrance to the freshman year and are candidates for a degree are considered regular students, even though for sufficient reasons they may be permitted to take less than the minimum number of hours. They are subject to the nine-hour rule, except that when registered for fewer than nine hours they must secure credit in them all.

ATTENDANCE AT CLASSES.

All students are expected to attend classes regularly. Daily reports are sent to the Registrar by all instructors. Absences from class are taken into account in making up the final semester grades, and in many cases students are required to take additional questions in final examinations on account of absences from class.

LEAVING TOWN.

Every student before leaving town during the session of the University is expected, as a matter of courtesy, to obtain a *leave of absence* card. These cards may be obtained by the women from the Dean of Women, and by the men from the Registrar.

CONDITIONS AND INCOMPLETES.

All conditions and incompletes in college subjects 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. Conditions may also be made up at the regular examination time.

MATRICULATION DEFICIENCIES.

Students admitted as freshmen, but having entrance conditions, may be allowed to make up during the first two years of their

course, either in the University or elsewhere, a total equivalent of two preparatory units; but the total number of hours, including college and preparatory work, for any one semester, shall not exceed 18 hours.

All matriculation deficiencies must be cleared up by the beginning of the junior year; but in cases where there is only one unit of entrance deficiency, it must be made up during the freshman year. Such deficiencies may be made up either at the high school or under an approved tutor.

ADVANCED STANDING.

Advanced standing will be given students coming from institutions of collegiate rank, who can satisfy the Committee on Advanced Credits that the courses offered are the equivalent of those given by the University. All applications for advanced standing, if not made before the opening of college, should be made as soon as possible after registration in the University, on blanks furnished by the Registrar.

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.

The system of grading by percentages of an undefined base has been discontinued, and in lieu thereof the system of grading by rank has been adopted for the purpose of assigning grade marks.

The students in each class, having been arranged by rank in the order of the merit of their respective achievements, the upper and lower quartiles are cut off from the whole group, and the two remaining quartiles are considered as composing a normal or medium group, and the students therein are each given the grade mark "M." The upper quartile is considered as composing a superior group, and each student therein is given a grade mark "S", except that a few of the highest ranking students,

not exceeding one-fifth of the number in this group, may be given a higher grade mark "H", signifying that in the opinion of the instructor these students have excelled their fellows in the superior group so markedly that they are clearly entitled to be placed in a group by themselves. The lower quartile is considered as composing a passing group, and each student therein is given a grade mark "P", except that the lowest ranking students, whose achievements are not, in the opinion of the instructor, sufficient to entitle them to pass, shall be given a grade mark "F" signifying failure.

Cond., conditioned. Quality of work unsatisfactory, and probably re-examination required. The mark "Cond." is counted the same as "F", failure, in estimating the number of hours a student has made (under the nine-hour rule) for the semester.

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

W, withdrawal from class at least one month before the beginning of the final examination period.

Both incomplete and conditioned work must be made up 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 of the class of 1912, 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 credit ranks lower than any of the above, he graduates *rite*.

SPECIAL HONORS TO SENIORS.

Under the following rule special honors will be given to seniors:

On or before the Saturday preceding Commencement Week, each head of department shall place in the hands of the Senior Credit Committee the titles of all major theses which are in his opinion of unusual excellence, the writers of such theses being thereby recommended to the faculty for special honors which shall be indicated on the Commencement program and elsewhere as the committee shall determine.

PRIZES AND SCHOLARSHIPS.**PRIZES.****THE FAILING PRIZE.**

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, Scientific, or the Literary Course prescribed by the University, or such course 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.

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.

Subjects for the Failing and Beekman prize orations must be handed to the Registrar by January 10. The preliminary contest to choose the six best orators to compete in the final contest will be held Saturday morning, May 1. The Failing-Beekman contest will be held on the evening of Tuesday of Commencement Week.

AWARDS OF THE FAILING PRIZE.

- 1890 Edward H. McAlister, Eugene.
- 1891 E. Etta Levis, Harrisburg.
- 1892 Lenn Stevens, Eugene.
- 1893 Carey F. Martin, Eugene.
- 1894 Irving M. Glen, Dayton.
- 1895 Julia G. Veazie, Dallas.
- 1896 H. S. Templeton, Halsey.
- 1897 Clinton E. Woodson, Currinsville.
- 1898 H. S. Church, Coburg.

- 1899 Lawrence A. Read, Portland.
- 1900 Homer D. Angell, The Dalles.
- 1901 B. C. Jakway, Portland.
- 1902 Elizabeth Logan, Eugene.
- 1903 Ella F. Travis, Eugene.
- 1904 Pearl Luckey, Portland.
- 1905 V. W. Tomlinson, Woodburn.
- 1906 Norma L. Hendricks, Eugene.
- 1907 Nettie Burdick, Cottage Grove.
- 1908 Robert W. Prescott, Baker City.
- 1909 Jesse H. Bond, Florence.
- 1910 Harold J. Rounds, Portland.
- 1911 Charles W. Robison, Portland.

AWARDS OF THE BEEKMAN PRIZE.

- 1890 Agnes M. Green, Seattle.
- 1891 Veina E. Adair, Eugene.
- 1892 Fred S. Dunn, Eugene.
- 1893 Thomas M. Roberts, The Dalles.
- 1894 Elias M. Underwood, McMinnville.
- 1895 Benetta Dorris, Eugene.
- 1896 V. V. Johnson, Eugene.
- 1897 Ida Noffsinger, McCoy.
- 1898 Clyde V. Fogle, Eugene.
- 1899 Bertha Slater, La Grande.
- 1900 Mary McAlister, Eugene.
- 1901 R. S. Smith, Klamath Falls.
- 1902 J. A. Gamber, Lacombe.
- 1903 J. H. Gilbert, Watsonville.
- 1904 Rosa Dodge, Ashland.
- 1905 Cora Shaver, Portland.
Joseph Templeton, Halsey.
- 1906 Loris M. Johnson, Eugene.
- 1907 Max Sylvius Handman, Portland.
- 1908 Miriam Van Waters, Portland.
- 1909 Earl Kilpatrick, La Grande.
- 1910 Arthur M. Geary, Portland.
- 1911 Percy M. Collier, Eugene.

THE BENNETT PRIZE.

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. The annual income is about \$16.

ALUMNI MEDAL.

The Alumni medal is presented annually by the Alumni Association of the University to the best individual student debater. The medal for 1912 was won by L. Leon Ray, of the class of 1912.

SCHOLARSHIPS.**MEDICINE.**

The University of Oregon School of Medicine offers annually one full scholarship and two half scholarships. The holder of the full scholarship is exempt from all fees except some incidentals, the total reduction from the regular fees of the session being \$120 for the first and second years of attendance. The half scholarship carries a reduction of \$60 for each session in the same way. Two half scholarships cannot be united to make one full scholarship. The scholarships are awarded to graduates of the University of Oregon having a bachelor's degree of not more than three years' standing at entrance to the Medical School. The awards are made by the faculty of the University, subject to approval of the Medical faculty.

COLLEGE ALUMNAE SCHOLARSHIP.

The Oregon Branch of Collegiate Alumnae offers to the young women of Oregon a scholarship of \$200 at the University of Oregon for 1912-13.

Application for this scholarship should be in the form of an informal letter stating fully the work done in the preparatory school and the course desired in the University, with whatever further information the candidate may consider desirable. The candidate who, in the judgment of the committee, is the best fitted

to do excellent work will be appointed. Applications may be addressed to the chairman of the committee, Miss Laura Northup, Lincoln High School, or 261 Fourteenth Street, Portland, Oregon.

RHODES SCHOLARSHIP.

The next qualifying examination for scholars in Oregon under the Rhodes bequest will be held in October, 1913; the selection of scholars will be completed before the end of January, 1914, and the elected scholar will begin residence at Oxford in October of the same year.

Scholarships will also be open in 1914; and again in 1916 and 1917, omitting every third year.

The scholarships are of the value of £500 a year, and are tenable for three years.

The examination for Oregon will be held at a center to be fixed by the local Committee of Selection. It should be clearly understood that this examination is not competitive, but simply qualifying, and is merely intended to give assurance that every elected scholar is up to the standard of the first examination (responsions) which the University demands of all candidates for the B. A. degree.

The Rhodes scholars will be selected from candidates who have successfully passed this qualifying examination. One scholar will be chosen.

Candidates must be unmarried, and must be citizens of the United States. Candidates are eligible who have passed their nineteenth birthday, but have not passed their twenty-fifth birthday on October 1st of the year for which they are elected.

It has been decided that all scholars shall have reached, before going into residence at Oxford, at least the end of their sophomore or second-year work at some recognized degree-granting university or college.

STUDENT 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. 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 is charged for the first degree taken, and \$10 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.

GENERAL EXPENSES.

Comparative statement of student's expenses for the academic year, from September to June:

	LOW.	AVERAGE.	LIBERAL.
Incidental Fee	\$ 10.00	\$ 10.00	\$ 10.00
Student Body Tax	5.00	5.00	5.00
Board and Room	162.00	225.00	270.00
Sundries	73.00	110.00	115.00
	\$250.00	\$350.00	\$400.00

The expenses of one person for a year vary according to the circumstances of the case, but, as will be seen from the above statement, are in general very low. The following estimate is probably substantially correct: Room from \$0.75 to \$3.00 per week; board from \$3.50 to \$5.00 per week; books from \$5.00 to \$20.00 per year. Students often rent rooms and do light house-keeping, thus reducing the cost of living to a very low point.

MEN'S DORMITORY.

The Men's Dormitory is a three-story brick building located on the campus. The men living in the Dormitory have a club organization, which is thoroughly democratic, by means of which, aided by the natural advantages of the location, a pleasant home is secured. The home and social life is cared for in a large, pleasant reading and reception room on the ground floor. The rooms are furnished throughout, with the exception of a mattress, bedding and towel linen, which are supplied by the occupants. The building is steam heated, and an abundance of hot and cold water is on each floor, with shower baths, lavatories, etc. There are about 50 rooms, which furnish accommodations for 60 or 70 men. The double rooms, or suites, easily accommodate three men, and some of the single rooms accommodate two men. The rooms and building are cared for by the Dormitory management, under the direction of the University. Excellent board is furnished in the dining room for \$3.50 per week. The rate for the room rent is about fifty cents per week. The dining room accommodates 90 men. The Dormitory is run at cost, with only a small margin at the end of each school year for replacement and repairs, so that the students patronizing it are enabled practically to live for cost. All possible savings and economy are effected by the management, in the way of buying and serving, so that the service in the Dormitory is much better for the amount paid than can possibly be secured in private homes.

Following is a table of the expenses:

Room rent per semester, payable at beginning of each semester, per room	\$10.00
Board per week, payable monthly in advance.....	3.50
Room deposit, returnable at end of year.....	5.00

Applications for rooms should be addressed to the President's Secretary, University of Oregon, Eugene. If rooms are available at the time of the application, an assignment will be made at once; otherwise the names will be kept on file, the rooms to be assigned in order of the application as vacancies may occur. The room deposits should either be sent in with the application, or when the assignment is made.

MARY SPILLER HALL.

Mary Spiller Hall, the girl's dormitory, will accommodate 20 girls. Each room is nicely furnished with bed and springs, rug, dresser, washstand, study table, chairs, and rocking chair. Each girl furnishes her own mattress, bedding, and linen. The following scale of prices will be in effect for 1912-13:

Room rent per semester, payable at beginning of each semester, per room	\$7.50 to \$15.00
Board per week, payable monthly in advance.....	3.50
Room deposit, returnable at end of year.....	5.00

The Hall is located on the campus, near the President's house, and is a very pleasant place to live. Applications for rooms should be addressed to the Matron, Mary Spiller Hall, University of Oregon, Eugene.

ROOMS IN PRIVATE FAMILIES.

The University publishes about September 1st of each year a directory of approved rooming and boarding places. The directory is sent free of charge, and copies may be secured by addressing the Registrar. The number of rooming and boarding places each year is large, and students will have no trouble in finding good locations. Ordinarily, it is not advisable to engage a room before reaching Eugene. The price of rooms varies from \$0.75 to \$3.00 per week, and board from \$3.50 to \$5.00 per week.

SELF-SUPPORT.

Seventy per cent of the men attending the University are either wholly or in large part earning their own way by work in the summers and work done during the college year. Eugene is a rapidly growing town of 12,000 inhabitants, whose citizens are friendly to the University and take pleasure in affording to students the opportunity to earn their necessary expenses. The work available during the session consists of janitor work, type-writing, reporting, tutoring, waiting on table, clerking, clothes pressing, odd jobs, etc. The Y. M. C. A. conducts a free labor bureau, which is at the service of the students. The demand for student help is usually larger than the supply. The University is glad to be of all possible assistance to those desiring to find work.

LABORATORY FEES.

In all laboratory courses a charge is made for the use of the laboratory and its equipment, for supplies used, and for breakage. At the end of the semester or year, depending on the course taken, any cash balances are returned or collected as the case may be. Payment of the fee must be made before enrollment in any laboratory course.

BOTANY.

A deposit of \$5.00 is required for each laboratory course, with the exception of Botany I, Botany II, and Botany VIII, which are \$2.00 each and Botany VII, which is \$2.50. Additional expense for supplies, if any, is met by the purchase of coupons. The usual expense to the student in advanced courses is from \$2.00 to \$4.00.

CHEMISTRY.

The deposit for each course is \$10. Additional expense for supplies, if any, is met by the purchase of coupons. All returnable materials, as well as unused portions of coupons, are redeemed at the close of the laboratory work in any course at their cash value. The usual cost to the student is as follows:

General Chemistry, \$10.

Analytical Chemistry, \$15 to \$20.

Organic Chemistry, \$15 to \$20.

Physical Chemistry, \$10.

CIVIL ENGINEERING.

Deposit for Testing Laboratory, Topographical Surveying, or Masonry Laboratory, \$2.50; for Elementary Surveying, \$1.00.

Key deposit for Mechanical Drawing, \$1.00; refunded at the end of the course on the return of the key.

ELECTRICAL ENGINEERING.

Deposit, \$3.00 a semester for each course in shops and laboratories.

RAILWAY ENGINEERING.

Deposit for Railway Surveying, \$2.50.

GEOLOGY.

A laboratory deposit of \$5.00 is required for Course 4, Crystallography and Mineralogy.

GYMNASIUMS.

Locker fee, \$3.00.

PHYSICS.

A deposit of \$5.00 is required for each course each semester. The usual expense for Courses 3, 12, and 13 is \$2.50 per semester.

ZOOLOGY.

A deposit fee is required in all courses in this department, with the exception of Zoology 9, 11, 15, and 18. In the courses requiring laboratory deposits, the fee in Zoology 1, 2, 12, and 18 is \$2.00; the remainder, \$5.00.

The apparatus loaned out to the student is expensive, and the fee is not intended to meet this in any measure, but to cover the cost of materials used and the apparatus not returnable. A certain portion of the fee is returned to the student in all courses except Zoology 1, 2, 12, and 17, if there has been no breakage, or in case the money has not been used to buy additional materials. The usual expense to the student in the advanced courses is from \$2.50 to \$4.00.

ORGANIZATION OF THE UNIVERSITY.

GRADUATE SCHOOL.

COLLEGE OF LITERATURE, SCIENCE, AND THE ARTS.

General Courses in Liberal Arts.

Special Courses, including—

Course Preparatory to Medicine.

Course Preparatory to Law.

Course Preparatory to Journalism.

SCHOOL OF COMMERCE.

COLLEGE OF ENGINEERING.

Civil Engineering.

Electrical Engineering.

Railway Engineering.

Chemical Engineering.

SCHOOL OF EDUCATION.

A four years' course.

SUMMER SCHOOL.

A six weeks' course.

SCHOOL OF CORRESPONDENCE-STUDY.

SCHOOL OF MUSIC.

Theory, Harmony, and Musical History.

Piano.

Voice.

Violin.

SCHOOL OF MEDICINE.

A four years' course.

SCHOOL OF LAW.

A three years' course.

THE GRADUATE SCHOOL.

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 administration of the Graduate School is entrusted to a committee of the University Faculty called the Graduate Council.

AIM.

The Graduate School in the different departments adapts its work to the needs:

1. Of those desiring to fit themselves for higher positions in the work of education and who as preparation for this work seek to specialize along definite lines;
2. Of those desiring to utilize the opportunities offered by the University to gain greater proficiency in other lines of professional activity or public service;
3. Of those competent to undertake research problems in any department of study and to be of service in the advancement of knowledge. Provision has been made for the publication under the auspices of the University of the results of especially meritorious work of this kind.

ADMISSION AND REGISTRATION.

Students holding the Bachelor's degree from this University or other institutions whose requirements for the degree are equivalent, and who desire to do graduate work, whether for an advanced degree or for no degree, are admitted to the Graduate School. Students holding a Bachelor's degree, but desiring to obtain a first degree in some other line, will register in the under-

graduate department. Candidates for admission to the Graduate School must make formal application upon blanks, furnished for that purpose, to the Graduate Council, submitting diplomas or other evidence of the requisite standing.

When approved by the Graduate Council, the applicant pays the required fee at the Steward's office, and receives from the Registrar, each semester, a study card to be filled out by his major professor. In case of a candidate for an advanced degree, the major professor must be the head of some department in which, either here or in the university from which he comes, the student has taken a sufficient amount of work to fit him for graduate study. The minor may be taken in undergraduate work. When made out the study card whether the student be a candidate for an advanced degree or not, must be submitted to the Graduate Council for formal approval. Otherwise, graduate students not seeking a degree are subject to the same regulations as undergraduates.

ASSIGNMENT OF STUDIES.

The heads of departments in which the student takes work constitute his Special Committee, which determines his course, conducts his examinations, and upon completion of all requirements, certifies to the Graduate Council his having earned the degree. The head of a department in which the candidate for an advanced degree takes his major work shall be his adviser, and chairman of his Special Committee.

DEGREES GRANTED.

The University now offers the following advanced degrees: Master of Arts, Master of Science, Civil Engineer, Electrical Engineer, Chemical Engineer.

THE MASTER'S DEGREE.

Candidates for the degree Master of Arts or Master of Science must complete at least one regular semester of study in residence, with the condition that all work *in absentia* for the Master's degree shall be done in regularly organized courses in the University Correspondence-Study Department. The work to be counted

toward an advanced degree must be divided between a major subject and a minor, the former receiving approximately twenty semester hours and the latter ten. Six of the thirty hours may, at the option of the candidate's Special Committee, be assigned to the thesis. All candidates must, on or before Monday of the third week before the last of the University year in which the degree is to be conferred, file with the Registrar for the Graduate Council a thesis approved by the chairman of his Special Committee having charge. Within the week in which the thesis is filed the candidate shall sustain an oral examination by a committee of three appointed by the President of the University, two of which shall be the heads of departments in which the student takes his work.

Students who during their candidacy for the Master's degree are engaged in teaching or other gainful employment, will be required to devote to their studies such longer period than one year as may be designated by the Graduate Council.

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, or Chemical 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 work, 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, drawing, 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.

COLLEGE OF LITERATURE, SCIENCE, AND THE ARTS.

THE FACULTY.

- P. L. CAMPBELL, B. A., President.
- JOHN STRAUB, M. A., Dean of the College of Literature, Science, and the Arts, and Professor of Greek Language and Literature.
- FRANKLIN L. BARKER, E. M., Professor of Geography.
- JAMES D. BARNETT, Ph. D., Professor of Political Science.
- CHARLES J. C. BENNETT, Ph. D., Professor of Education and Psychology.
- JOHN FREEMAN BOVARD, M. S., Professor of Zoology.
- WILLIAM PINGRY BOYNTON, Ph. D., Professor of Physics.
- ROBERT CARLTON CLARK, Ph. D., Professor of History.
- TIMOTHY CLORAN, Ph. D., Professor of Romance Languages.
- ARTHUR J. COLLIER, M. A., Professor of Geology.
- EDMUND S. CONKLIN, Ph. D., Assistant Professor of Psychology.
- EDGAR EZEKIEL DECOU, M. S., Professor of Mathematics.
- FREDERIC STANLEY DUNN, M. A., Professor of Latin Language and Literature.
- JAMES HENRY GILBERT, Ph. D., Assistant Professor of Economics.
- MONTANA HASTINGS, B. A., Assistant Professor of Education.
- WILLIAM L. HAYWARD, Director Men's Gymnasium.
- HERBERT CROMBIE HOWE, B. A., Professor of Modern English Literature.
- HEMAN BURR LEONARD, Ph. D., Assistant Professor of Mathematics.
- GEORGE REBEC, Ph. D., Acting Professor of Education (Second Semester, 1911-12).
- ARCHIBALD F. REDDIE, Professor of Public Speaking.
- JOSEPH SCHAFER, Ph. D., Professor of History.
- FRIEDRICH GEORG G. SCHMIDT, Ph. D., Professor of the German Language and Literature.
- FREDERICK LAFAYETTE SHINN, Ph. D., Assistant Professor of Chemistry.

- ORIN FLETCHER STAFFORD, M. A., Professor of Chemistry.
BERTHA STUART, B. A., M. D., Director Women's Gymnasium.
ALBERT RADDIN SWEETSER, M. A., Professor of Botany.
EDWARD ALLEN THURBER, M. A., Professor of Rhetoric and American Literature.
FREDERICK GEORGE YOUNG, B. A., Professor of Economics and Sociology.
ANNIE BERGMAN, B. A., Assistant in Romance Languages.
PAUL G. BOND, B. S., Assistant in Physics.
GRETA E. BRISTOW, B. A., Assistant Instructor in English Literature.
JULIA BURGESS, M. A., Instructor in English.
GERTRUDE DENHART, B. A., Assistant in German.
J. LEROY JOHNSON, B. A., Instructor in Public Speaking.
WILLIAM B. KEMPTHORNE, Ph. B., Instructor in Mathematics.
HUGO W. KOEHLER, B. A., Instructor in German.
RUTH LATHROP, Assistant in Romance Languages.
ELLEN M. PENNELL, Instructor in English.
MARY H. PERKINS, M. A., Instructor in English.
CHARLES ROY REID, B. S., Instructor in Mathematics.
MAUDE I. STINSON, B. A., Assistant Instructor in English.
HARRIET THOMSON, B. S., Assistant Director Women's Gymnasium.
MARY WATSON, B. A., Instructor in English Literature.
HOMER WHEELON, B. A., Assistant in Zoology.

ORGANIZATION.

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

Botany, Chemistry, Rhetoric and American Literature, English Language and Early English Literature, Modern English Literature, Economics and Sociology, Political Science, Education, Geography, Geology, German, Greek, History, Latin, Mathematics, Philosophy, Psychology, Physics, Romance Languages, and Zoology.

ADMISSION.

For full entrance to the freshman class fifteen units are required. Graduates of high schools who for any reason do not

have fifteen units may enter as conditioned freshman if they have satisfactorily completed at least thirteen units. All conditions must be made up as soon as possible after entrance, one unit during the freshman year and one unit during the sophomore year.

The subjects required of all freshmen entering the College of Literature, Science, and the Arts are as follows:

English	3	units
Algebra	1½	units
Plane Geometry	1	unit
One Foreign Language	2	units
History	1	unit
Physics	1	unit
Elective	5½	units
Total.....	15	units

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 Zoology 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. See announcement of courses, department of Zoology.

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 deter-

mined 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.

Although the University has included in its curriculum up to the present time no technical courses in journalism, it offers an excellent preparation for students who plan to enter that field. The general supervision rests with the department of Rhetoric, and students in journalism will be required usually to take in that department two courses besides English Composition I.

Furthermore students in journalism will be expected to take as a minimum requirement one full year course in each of the following groups: (I) English Literature; (II) Philosophy-Mathematics (including Psychology, Ethics, and Logic); (III) Physical and Biological Sciences; and two full year courses in (IV) Language and Literature other than English, and (V) History-Economics. The rest of the work will fall largely in groups I and V.

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.

The courses in economics, politics, and sociology apply to the actual business conditions and methods of today. They give just the preparation necessary for the mastery of the larger problems of the business man and go as far into matters of detail as can be done to advantage outside of actual business dealings. They give the young man the standpoint of the promoter of the public interest at the same time that he is securing the best insight into commercial and industrial affairs. He thus secures real cultural training as he is getting his bearings for his vocation.

The student wishing to take of the School of Commerce will make his major in Economics. The head of the department of Economics will outline his course as suited to his individual needs, and give him full information and advice.

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 of 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, but a student may, if he desires, take extra hours in any one department up to a total of five, making the total hours in that department forty-five.

Thesis—Each candidate for the Baccalaureate degree shall present an approved graduating thesis in his 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, *i. e.*, students excused from gymnasium shall complete 124 semester hours of university work for graduation. Two hours in the gymnasium shall be equivalent to one semester hour. A physician's certificate only shall count as a valid excuse from gymnasium work.

Language—Every candidate for the degree of Bachelor of Arts, or Bachelor of Science in the College of Literature, Science, and the 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, 2, 11; General Chemistry 1; Economics 1; English Composition 1, 2, 3, 4, and 5; English Literature 32, 37 and 38; Public Speaking 1; Geology 1; Geography 1, 4, 8; German 1; German 2 and 3 if prepared; French 1; French 2 and 3 if prepared; Greek 1; Greek 2 if prepared; Spanish 1; Spanish 2 if prepared; History 1; Latin 1 and 2; Latin 3, 4, 5, and 6 if prepared; Mathematics 1, 2, 3; Personal Hygiene 7; Physics 1, 2, 3; Zoology 1, 2, 11; Civil Engineering 1, 2, 3; Electrical Engineering 1, 2, 3, 5, 6, 7, 8.

DEPARTMENTS OF INSTRUCTION.*

ANNOUNCEMENT OF COURSES FOR 1912-13.

BOTANY.

Professor Sweetser.

(a) Introductory courses as a foundation for study in Botany and Zoology; (1) for students preparing for the study of Applied Science; (2) for students seeking general culture; (3) for those preparing to teach Science in secondary schools; (4) for students preparing for the study of Medicine.

(b) Intermediate courses for those planning for more extended study along the lines of Biology or 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.

Students taking work preparatory to Medicine, Dentistry, and Pharmacy should elect the following courses in this department: 1, 2, 3, 5, 6, and 11.

1. *Phenogamic Botany*. Three lectures and one laboratory period. An introductory study of the Morphology, Physiology, and Ecology of the flowering plants, both Angiosperms and Gymnosperms. It is intended for beginners or for those who wish to get a comprehensive view of the subject. Open to all Freshmen.

Four hours, first semester.

2. *Cryptogamic Botany and Taxonomy of Phenogams*. Three lectures and one laboratory period. Morphology, Physiology, and Ecology of the flowerless plants and classification of Phenogams and Cryptogams. This may be taken in sequence with Course 1, by those who have had Botany in high schools or independently. Open to Freshmen.

Four hours, second semester.

3. *Structural Botany and Plant Histology*. One lecture and two laboratory periods. Prerequisites, Courses 1 and 2. Must precede Course 5. Not given 1912-13. *Three hours, first semester.*

*Alphabetically arranged.

4. *Plant Physiology and Morphology*. One lecture, two laboratory periods. An advance course, and will include a more or less extended study of plant organs and vegetal functions. Prerequisites, Courses 1 and 2. Not given 1912-13. *Three hours, second semester.*

5. *Medical Botany*. One lecture, two laboratory periods. A study of some of the typical medicinal plants, their structure, habitat and medicinal properties. Also a few powdered drugs and their adulterants. Prerequisites, Courses 1, 2, and 3. Not given 1912-13. *Three hours, second semester.*

6. *Bacteriology*. One lecture, two laboratory periods. Laboratory technique and lectures, methods of staining, examining, and cultivating bacteria. Advised for pre-medical students, both semesters. In connection with Physical Culture and in preparation for Domestic Science, first semester. *Three hours, first semester.*

7. *Economic Botany*. Biological examination of water, bacteriology of milk, foods, etc. Vegetal food stuffs, dietetics, pure foods and adulterated. One lecture, one laboratory period.

Two hours, one semester.

8. *Systematic Botany*. (a) Taxonomy of Cryptogams, Mycology, and Algology. (b) Higher Cryptogams and Phenogams. (c) Native shrubs and trees. *Hours to be arranged.*

9. *General Biology*. Two lectures. Devoted to the study of plant and animal structure and some of the fundamental principles of life. Discussion of evolution from biological standpoint. Not given 1912-13. *Two hours, each semester.*

9a. *Biology Demonstration*. Intended for those electing course 9 and desiring in addition a laboratory study of some simple life problem. Not given 1912-13. *One hour, each semester.*

10. *Research*. Thesis and other investigations.

11. *Sanitary Hygiene*. The economy of the microbes, pure water, pure air, pure milk, and pure food. Lectures. Open to all. *Two hours, second semester.*

12. *Pedagogical Colloquium*. Suggestions in methodology for those intending to teach. *One hour, each semester.*

EQUIPMENT.

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

The Leiberg collection of 15,000 sheets of specimens, mostly from Oregon and Idaho, has just been given to the University by Mr. Leiberg. They are for the most part duplicates of specimens filed with the government, and are extremely valuable.

The collection of Mr. W. C. Cusick of 10,000 sheets has been purchased and Mr. Cusick will make collections for the University Herbarium this coming season.

LABORATORY FEES IN BOTANY.

A deposit of \$5.00 is required for each laboratory course, with the exception of Botany 1, Botany 2, and Botany 8, which are \$2.00 each and Botany 7, which is \$2.50. Additional expense for supplies, if any, is met by the purchase of coupons. The usual expense to the student in advanced courses is from \$2.00 to \$4.00.

CHEMISTRY.

Professor Stafford.

Assistant Professor Shinn.

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.

Students electing Chemistry as a major will in general be expected to take Course 1 during the Freshman year, Courses 3

and 4 in the Sophomore year, and Courses 5 and 10 during the Junior year. The Senior year may be devoted to whatever courses the department may offer during that year which will most nearly meet the demands of the special line of work to be taken up after graduation. Prerequisites and closely allied work during the college course include German, French, Mathematics, Physics, Mineralogy, Biology, etc., depending again upon the work for which the student is making preparation.

1. *General Chemistry.* This course or a satisfactory equivalent is prerequisite for all 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 course 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 students 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 a good opportunity for first-hand contact with the experimental truths of chemistry and for training in laboratory methods. Lectures on Monday, Tuesday, and Wednesday at 11; laboratory periods 1 to 4, Thursday or Friday.

Four hours, both semesters.

3. *Analytical Chemistry.* A course in qualitative analysis embracing the systematic separation and detection of the common inorganic radicals, followed by a course in quantitative analysis consisting of exercises illustrating the important methods of gravimetric and volumetric determinations. One lecture or recitation per week at an hour to be arranged. Laboratory open to students in this course 1 to 5, Monday, Tuesday, and Wednesday.

Three or four hours, either semester.

4. *Analytical Chemistry.* Continuation of Course 3. Devoted to quantitative analysis.

Either semester.

5. *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. Three lectures a week for the year. Laboratory requirements are the satisfactory completion of twenty-five preparations to be assigned by the instructor.

Four hours, both semesters.

8. *Physiological Chemistry.* A brief study of the chemical constitution of the body, of foods and of excretion and of the chemical changes accompanying metabolism. The laboratory work will be selected from the following subjects: A study of fats, carbohydrates, and proteins; the products of salivary, gastric and pancreatic digestion; milk, egg, bile and blood; the chemical and microscopic examination of normal and pathological urine.

Lectures twice a week and one three-hour laboratory period per week. Must be preceded or accompanied by Course 5.

Three hours, second semester.

10. *Advanced Inorganic Chemistry.* A lecture course in which an introductory study of the law of mass action, the phase rule, the theory of electrolytic dissociation, Avogadro's hypothesis, and similar helpful conceptions is made in connection with their practical applications. The work is based upon "The Principles of Inorganic Chemistry"—Ostwald. Three lectures per week.

Four hours, second semester.

12. *Advanced Analytical Chemistry.* Laboratory practice in gravimetric, volumetric and electro analysis. The following subjects are covered, from which the student may select to suit his own particular needs: Ores and alloys of copper, zinc, chromium, manganese, arsenic, antimony, lead, etc.; clay, rock, and cement; iron and steel; paints; fertilizers; gas, in which the student acquires familiarity with the apparatus through analysis of air, gaseous mixtures, and illuminating gas; fuel, including proximate and ultimate analysis of wood, coal, and oil, and the determination of their heating values by the Parr and Mahler calorimeters. Fortnightly lectures in which is taken up the theory, calculation, and interpretation of data. Prerequisite, Course 3.

Two hours or more, either semester.

14. *Industrial Chemistry.* Typical industries are studied for the purpose of bringing out the technique of applied chemistry as well as to give specific information regarding the cases discussed. Subjects usually discussed are: Fuels, cements, lime, plaster, alkalis, acids, coal gas, producer gas, ammonia, electric furnaces and their products, and electro-metallurgy. Lectures, collateral reading, and reports.

Two hours, both semesters.

16. *Physical Chemistry.* The elements of this subject. Two lectures and one three-hour period for laboratory work or calculations.

Three hours, both semesters.

18. *Electro Chemistry.* One lecture and three hours of laboratory or computation per week.

Two hours, second semester.

19. *Chemical Engineering.* A systematic study of the appliances used in industrial chemical processes.

Two hours, first semester.

21. *Sanitary Chemistry.* The chemistry of water purification, sewage treatment, food preservation and adulteration, etc.

Two hours, first semester.

23. *Analysis for Engineers.* A short course in Analytical Chemistry for engineers who may be unable to find time for the regular course. One laboratory period of three hours each week for the semester is devoted to the acquisition of analytical technique and the analysis of a fuel, gas, cement, water or other substance of interest to the engineer.

One hour, first semester.

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 make 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 \$10 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 University 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 department 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 store room 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, with the understanding that unused material is to be returned for credit in all cases.

All returnable material, as well as unused portions of coupons, are redeemable 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, \$10; Analytical Chemistry, \$15 to \$20; Organic Chemistry, \$15 to \$20. In addition to the \$10 deposit each student is required to purchase one or more of the one dollar coupons at the time enrollment is made.

It is especially to be noted that these deposits are to be made preliminary to enrollment in laboratory courses. There should therefore be due provision on the part of the student for the prompt payment of the amounts in order that no hardship may be incurred by the delay that otherwise must follow.

ECONOMICS, SOCIOLOGY, AND POLITICAL SCIENCE.

Professor Young.

Professor Barnett.

Assistant Professor Gilbert.

The courses offered by this department are designed to meet the needs of students who intend to enter the public service, business, the professions of law, journalism, the ministry, or who are preparing to teach in this field or in that of history or literature. Students planning to follow engineering or other practical pursuits who wish to round out their preparation for life on the business, social, and civic sides, will find courses especially adapted to their needs. Preparation for those higher and wider responsibilities of citizenship that should be assumed by every university man or woman is provided for in special courses. (See Courses Nos. 3 and 4.)

The work of this department has thus the following distinct but related aims:

1. To provide in co-operation with other departments the regular preliminary university instruction for several practical and professional pursuits.

2. To supplement the work of other departments in providing the lines of study necessary in the training for efficient citizenship.

3. To assist and encourage the development of these sciences and to stimulate a larger utilization of their principles in the

organization and the affairs of this commonwealth. (See "Research and Theses Course," No. 19.)

Special attention is called to the courses of the department of History, which are naturally preliminary to thorough work in this department; to the general course in biology for concepts helpful in the study of sociology; and to related courses in philosophy and ethics.

Open to Freshmen at the beginning of the University year.

Economics: Courses 1 and 2, and if student has had requisite preparation, Course 3.

Political Science: Courses 1 and 2.

ECONOMICS AND SOCIOLOGY.

I. PRIMARILY FOR UNDERGRADUATES.

1. *Economic and Social History of England.* This course is introduced with a sketch of the social and industrial evolution of mankind to the stage represented by the inhabitants of England at the time of the Saxon invasion. The nature of the social and industrial organization of the English people is traced through its successive modifications down to the present time, and the influences affecting it identified. Industrial development on the continent is at each stage brought into comparison with that of the English people. Text-book, assigned readings, and exercises.

Two hours, first semester.

2. *The Economic and Social History of the United States.* The development of the characteristic lines of agriculture, industry, and commerce in the United States is studied and the interaction between this economic development and the political and social institutions noted.

Two hours, second semester.

3. *The Principles of Economics.* The principles that underlie the different economic relations and institutions are developed and applied. The elements in the more important economic problems are pointed out. Text-book, assigned readings, and exercises.

Three hours, both semesters.

4. *The Elements of Sociology.* The influences and factors determining human life in association are studied. A compre-

hensive view of the social process is developed. The relations and the organization characterizing progressive society are identified and their reactions on the mental life of the individual are investigated.

Two hours, both semesters.

II. FOR UNDERGRADUATES AND GRADUATES.

5. *The Labor Problem.* Topics considered are: The rise of the factory system, factory legislation, the growth of trade unions, and changes in the law in respect to them, the policies of trade unions, strikes, lockouts, arbitration and conciliation, proposed solutions of the labor problem, and the future of labor in the United States.

Two hours, first semester.

11. *Public Finance.* It is the aim of this course to ascertain principles of public expenditure, public revenue, budgetary legislation, financial organization, and public indebtedness. These principles will then be applied to concrete problems connected with corporation, railway, mortgage, and insurance taxation, and double taxation, and the income, the personal property and inheritance taxes.

Three hours, both semesters.

13. *Money, Banking, and Economic Crises.* The principles of Economics are applied to modern monetary systems with the view of developing policies of improvement. The conditions attending the development of industrial and monetary crises are analyzed.

Two hours, both semesters.

15. *History of Economic Thought.* The interactions between the ideas pertaining to economic interests and the conditions of economic life, also the relations between the economic thought and the philosophical speculations of successive epochs are traced. The existing schools of economic thought are defined.

Three hours, first semester.

16. *Distribution of Wealth.* An historical and comparative study of the theories of leading economists.

Three hours, second semester.

17. *Railway Transportation.* A study of the economic, social, and political problems connected with the railroad as a factor in modern life.

Four hours, first semester.

18. *Pools, Trusts, and Combinations.* An inductive study of the tendencies and forces in modern industrial development.

Four hours, second semester.

19. *Conservation and Commonwealth Research and Senior Theses.* Problems of conservation affecting human interests in the Pacific Northwest will be outlined. The essentials of a commonwealth course will be developed. All seniors taking majors in this department will be guided in the preparation of their theses.

Two hours, both semesters.

20. *Modern Sociological Thought.* A survey of the works of leading sociological writers, and a synthesis of their systems.

Three hours, both semesters.

21. *Socialism and Social Reform.* An accounting of the pathological conditions in our present social order. A critical examination of Socialism as a program of social reform. Prime conditions of social betterment.

Three hours, second semester.

23. *Railway Organization and Operation.* A study will be made of the development of our railway system and the railway corporation; of the functions of officers and administrative departments, and the management of the different classes of traffic. Designed for engineering students.

One hour, second semester.

POLITICAL SCIENCE.

Professor Barnett.

1. *American Government.* The government of the United States, federal, state, and local, with special attention to the operation of the federal government. Prerequisite to all other courses in political science. Monday, Tuesday, and Friday at 10.

Three hours, first semester.

2. *European Governments.* The organization and operation of the governments of England, France, Germany, and Switzerland, with special attention to the government of England. Monday, Tuesday, and Friday at 10.

Three hours, second semester.

3. *Elementary Law.* A very brief introduction to the theory of law and to the history of English and American law, followed by a general consideration of the principal branches of the com-

mon law. Practice in the use of cases. Monday, Wednesday, and Friday at 9. *Three hours, first semester.*

4. *Constitutional Law.* A study of the federal constitution as interpreted by the courts. Chiefly a discussion of leading cases. It is desirable that this course be preceded by Political Science 3. Monday, Wednesday, and Friday at 9.

Three hours, second semester.

5. *International Law.* The general principles of international law. It is desirable that this course be preceded by Political Science 3. Monday, Wednesday, and Friday at 8.

Three hours, first semester.

6. *Law of Officers.* The law of public officers. Chiefly a discussion of leading cases. Open to students credited with at least one course in law. Monday, Wednesday, and Friday at 8.

Three hours, second semester.

7. *Internationalism.* Militarism and pacifism; the causes of war and the means of preserving peace; the history and present status of world organization through international law, international arbitration, and international administration; projects of world federation; international economic and social solidarity; nationalism and cosmopolitanism. Open to qualified Juniors and Seniors. Tuesday and Thursday at 9. *Two hours, first semester.*

8. *Municipal Government.* The organization and operation of municipal government in France, Prussia, England, and the United States, with special attention to contemporary reforms in the United States. Open to qualified Juniors and Seniors. Tuesday and Thursday at 9. *Two hours, second semester.*

9. *Problems of Government.* Direct primary nomination, popular election of United States Senators, proportional representation, initiative and referendum, and recall. Open to qualified Juniors and Seniors. Tuesday and Thursday at 9. (Omitted 1912-13.)

Two hours, first semester.

10. *Political Theory.* A very brief study of the history of political theory, and a more extensive study of modern political theory. Open to qualified Juniors and Seniors. Tuesday and Thursday at 9. (Omitted 1912-13.) *Two hours, second semester.*

EDUCATION.

Professor Bennett.

Assistant Professor Hastings.

It is the aim of the department to offer a group of courses which will acquaint the student 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. 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. *History of Education* to the eighteenth century includes a study of educational systems of Chinese, Hindus, Egyptians, Jews, Greeks, Romans, Middle Ages, the Renaissance and Reformation periods; also such educational classics as Plato, Aristotle, Quintillian, Guarino, Erasmus, and Comenius. Prof. Bennett.

Three hours, first semester.

2. *History of Education* from eighteenth century to the present. Consists of a study of the growth of the educational systems of France, Prussia, Great Britain, Holland, Switzerland, the Scandinavian states, the United States of America; also chief modern classics beginning with Locke's *Thoughts on Education* and including the important books of Rousseau, Pestalozzi, Froebel, Herbart and Herbert Spencer. Prof. Bennett.

Three hours, second semester.

Course 1 prerequisite to 2, but may be taken in different years.

3. *A Pedagogical Psychology*. Application of the fundamental principles of adult psychology to educational problems. Assistant Prof. Hastings. Prerequisites: Education 1 and 2 and Psychology 1.

Three hours, first semester.

4. *Genetic Psychology.* Growth of the individual mind through childhood and adolescence to maturity, with reference to pedagogy. Assistant Prof. Hastings. *Three hours, second semester.*

5. *School Administration.* Structure of state and city systems of education, school finance, the school house, the teaching staff, administration of normal schools, vocational education, physical education, correctional education, schools for defective and sub-normal children, evening and continuation schools, child labor laws and educational statistics. Dutton & Snedden's *Administration of Public Education in the United States*, and W. E. Chancellor's "Our Schools, Their Administration and Supervision" indicate the scope of the course. Prof. Bennett.

Three hours, first semester.

6. *Organization of Common School Curricula.* History of common school course of study in America, comparative study of city and state courses of study, grading and promotion, and allied topics. Prof. Bennett. *Three hours, second semester.*

7. *Scientific Methods of Study.* How pupils of the high school may be taught to study more independently and effectively is the question that dominates the course. This includes a systematic consideration of the whole question of study in the light of modern psychology and modern pedagogy. Demonstration lessons are given by some of the best teachers of the high school. Investigations as to what is being accomplished by other schools in securing more efficient study; a careful study of the best literature upon the subject. Texts, McMurry, *How to Study*; Dewey, *How We Think*. Assistant Professor Hastings. *Two hours, both semesters.*

8. *Philosophy of Education.* Aim and purpose of education, criticism of fundamental characteristics of present day systems, consideration of the moral education movement, education from the standpoint of the individual, society and the species.

Two hours, both semesters.

9. *Education Club.* Reading contemporary literature of education and discussion of current educational topics.

One hour, both semesters.

10. *Secondary Education.* History, organization, and administration of secondary education in America; training of secondary teachers. School management applied to secondary schools. Observation work in high schools eighteen hours. In addition to the regular work of the course, the librarian of the University will present the topic of the high school library, the department of physical training will present the hygienic problems of the high school, and outside lecturers will discuss the athletic and social problems of the high school. *Three hours, both semesters.*

12. *Methodology of High School Subjects.* With practice work in University practice school and in high schools. This work is under the direction of the department. Repeated each semester, student to register for one semester only. Alternates with 10. *Five hours, each semester.*

FOR GRADUATES AND ADVANCED STUDENTS.

15. *Select Periods in the History of the Teaching Profession* in England and America. This course is intended for advanced students who have had courses 1 and 2 and who on account of general maturity and studies in the allied fields of literature and history are qualified to carry on special studies. Each member of the class will select a particular aspect of the subject which is to be mastered and embodied in a report or monograph at the end of the year's work. *Three or four hours, both semesters.*

ENGLISH.

PROFESSOR HOWE, Modern English Literature.

PROFESSOR THURBER, Rhetoric and American Literature.

MISS BURGESS

MISS WATSON

MISS PERKINS

MISS BRISTOW

MRS. PENNELL

MISS STINSON.

Five 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. Ability to apply the methods of philological science to the English language.

All students, regular and special, who take up the work in these courses, must present fifteen hours of entrance English. The entrance English requirements will conform to the state high school course.

Every student in the College of Literature, Science, and the Arts, at the beginning of his freshman year, shall elect either (1) to take an examination, or (2) to take six semester hours in Rhetoric, for which college credit will be given. Engineering students must take either (1) the examination, or (2) three semester hours in Rhetoric.

The examination will be held during registration week at an hour and place announced on the bulletin boards. It will consist (1) of exercises to test the student's knowledge of punctuation and sentence structure, and (2) of a number of assigned topics to bring out the student's facility and accuracy in the use of English. A student who attains a high degree of excellence in the examination is released from further requirements in Rhetoric unless the student is majoring in that subject or intends to teach it. Students who give evidence in the examination of a notable degree of efficiency in the use of English but who do not attain high excellence shall be required, according to the worth of their papers, to take in freshman year either (1) two semester hours or (2) four semester hours in Rhetoric. Those students who fail to show a satisfactory degree of efficiency in the examination will be required to take the regular freshman six semester hours' course.

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.

Students who wish to make Rhetoric or English Language or English Literature their major subject are required to take courses 1, 31, 32, 33, and 37, or satisfy their instructors of equivalent

work done elsewhere. For their further study in any of these departments to fulfill their major requirement, they will consult with their advisers.

Those who expect to teach English will be subject to the approval of the heads of the departments of English, and will be required to take, in addition to the courses named above, courses 6, 34, 38, and 63. Other courses will be added by the professors under whom they may do their major work.

RHETORIC.

Students who elect their major in the department of Rhetoric will take as a basis for their work the courses mentioned above, to which will be added in their senior year course 8. Other courses will be chosen under the advice of the department.

Before taking the advanced courses of this department, however, students choosing major work here are recommended to take at least one full year course in each of the following general groups: I, History-Economics; II, Philosophy-Mathematics (including Psychology, Ethics, and Logic); III, Physical and Biological Sciences; and two full year courses in IV, Language and Literature other than English. The purpose of this requirement is to give breadth to the students' course that their work may be more effectively concentrated in their last two years. The requirement will also enable students to shift their major in their junior year, if they find that their interests lie outside this department.

1. *English Composition.* A study of the elements of effective prose with analysis of selected masterpieces; constant training in writing and frequent consultations. A text-book will be used. Open to all freshmen. Professor Thurber, Miss Burgess, Miss Perkins, Mrs. Pennell, Miss Stinson. *Three hours, both semesters.*

2. *English Composition.* A repetition of course 1 in alternate semesters. *Three hours, both semesters.*

3. *English Composition.* Same in general scope as course 1. Open to freshmen who have passed off an hour of their required Rhetoric. *Two hours, both semesters.*

4. *English Composition*. Open to freshmen who have passed off two hours of their required Rhetoric. *One hour, both semesters.*

One of the above courses is prerequisite to courses 6-10.

5. *English Composition*. Open only to engineers who are not in courses 1 and 2, and have not met the requirements of courses 3 and 4. *One hour, both semesters.*

6. *Rhetoric*. Open to students who have passed in a freshman course or who have passed off their Rhetoric requirement. The Atlantic Monthly is used in this course. It is prerequisite to the later courses in Rhetoric. Professor Thurber.

Three hours, both semesters.

7. *Daily Themes*. Daily short papers, and longer fortnightlies. In the second semester an extended paper of several chapters will be required. An opportunity for practice in verse forms. This course is open to a limited number of students who have attained an H grade in their freshman work or S in Rhetoric 6. Professor Thurber.

Three hours, both semesters.

8. *Essay Writing*. An advanced course in composition, especial attention being given to the essay. Miss Burgess.

Two hours, both semesters.

9. *Short Story*. For those who in previous courses have shown an aptitude for story writing. Typical short stories will be analyzed and exercises given in the development of motive, character, plot, and environment. Professor Thurber. *Two hours, second semester.*

10. *Verse Composition*. A study of verse forms in English poetry, with exercises in writing verse. In the second semester a more detailed study of one or two poets. Professor Thurber.

One hour, both semesters.

ENGLISH LANGUAGE.

Students choosing major work in this department will usually be required to pursue the following courses in the order stated: Freshman year, courses 1, 31, and 32; sophomore year, courses 33, 23, and 24; junior year, course 34; senior year, course 21. Additional work will be prescribed as the needs of the individual student may demand.

21. *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.

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

Three hours, both semesters.

23. *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.

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

Two hours, second semester.

25. *Anglo-Saxon*. Reading from Cynewulf, signed poems and attributed poems. Alfred, Saxon Chronicles, Aelfric, alliterative and prose homilies.

Two hours, both semesters.

ENGLISH LITERATURE.

More courses are given in the department than any one student is permitted to take, and opportunity is offered to map out work in more than one field. All students wishing to make modern English Literature a major are therefore requested to consult the head of that department.

31. *Outlines of English Literature*. Anglo-Saxon literary development, characteristics of the heathen, transitional and Christian epochs. The influence of the Norman Conquest, the subsequent revival of literature and its later growth. The entrance of different literary elements and forms. The work will consist of lectures, recitations, and reports.

Three hours, one semester.

32. *Outlines of 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 is 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 is supplemented by lectures and interpretative readings. Professor Howe. *Three hours, one semester.*

Courses 31 and 32 are intended as a survey of the entire field of English Literature and will be given each semester.

33. *Chaucer.* A reading course in Chaucer's Tales and poems, with attention to his pronunciation, his language and the interests of his time. May be taken by any who have had prerequisite courses 31 and 32. Professor Thurber.

Two hours, first semester.

34. *Scottish Poets.* A study of early Scottish poetry. Poems of Bruce, Barbour, Henryson, and The Tail of Rauf Coilyear will be read and discussed as representative of the later expression of Northumbrian poetry. Southern Chaucerian imitators.

Two hours, one semester.

35. *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 36 it aims to cover the three great lines of development in the English verse. *Two hours, first semester.*

36. *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.

37. *Wordsworth.* A study of the best known poems of the author, in such order as to illustrate the power, scope, and characteristic beauty of the author. Professor Howe.

Two hours, first semester.

38. *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 37 and 38 are given in natural sequence, but may be taken separately. They are open to freshmen, and required in

sophomore year of such students taking a major in the department as did not take them in freshman year.)

39. *Shelley*. A study of the more important works in their order as written, and elucidated by some study of Shelley's life, illustrative of his system of thought and significance in the literature. Professor Howe. *Three hours, first semester.*

40. *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 acquaint him with the range of the author's thought and sympathies. Professor Howe. *Three hours, second semester.*

(Courses 39 and 40 will be taken in sophomore year by students with a major in the department. In conjunction with courses 37 and 38 they lay a solid basis of knowledge prerequisite to courses 41 and 42, which may be taken at any time after completing the four courses last preceding, but are properly senior courses.)

41. *The Georgian Poets*. Wordsworth, Coleridge, Southey, Scott, Byron, Shelley, Keats, Hunt, Hood, Landor. Miss Bristow. *Three hours, first semester.*

42. *The Victorian Poets*. Browning, Barrett-Browning, Tennyson, Rosetti, William Morris, Swinburne, Matthew Arnold, DeVere. Miss Bristow. *Three hours, second semester.*

43. *Edmund Spenser*. A study of the Shepherd's Calendar and the later books of the Færie Queen. (Not given in 1912-13.) Professor Howe. *Two hours, first semester.*

44. *Milton*. Paradise Lost entire, Paradise Regained, and Samson Agonistes. Miss Watson. *Two hours, first semester.*

45. *Shakespeare*. The comedies and historical plays. Miss Watson. *Three hours, first semester.*

46. *Shakespeare*. The tragedies. Miss Watson. *Three hours, second semester.*

(Courses 45 and 46 will hereafter constitute a prerequisite to course 57, in the critical study of Shakespeare.)

47. *The Contemporaries of Shakespeare*. The important Elizabethan and Jacobean dramatists. Miss Watson. *Two hours, both semesters.*

48. *English Prose Writers* (not novelists), of the nineteenth century. Ruskin will be read in class, with Matthew Arnold, Newman, etc., as collateral reading. Professor Howe.

Three hours, first semester.

49. *English Prose Writers* (not novelists), of the nineteenth century. Carlyle will furnish the class text, but De Quincey, Macauley, and Landor will also be studied. Professor Howe.

Three hours, second semester.

50. *English Prose Writers of the Eighteenth Century.* Gibbon, Burke, Samuel Johnson, Boswell, Hume, Smollett, Goldsmith, Fielding. Professor Howe.

Two hours, both semesters.

51. (a) *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 Austen, The Tale of Terror, etc., and (d) of the Victorian novelists, Dickens, Thackeray, etc. A lecture course, with collateral reading and papers by the class. Professor Howe.

Three hours, both semesters.

(b) *The English Novel in the Nineteenth Century.* Typical works of Jane Austen, Scott, Dickens, Thackeray, Meredith, and Thomas Hardy are read in class, and an equal amount of outside reading assigned for report and examination. The course is accompanied by expository lectures. *Three hours, both semesters.*

(c) *Social Problems in the English Novel.* The attempt to use the novel in the cause of various reforms. Dickens, Charles Reade, Charles Kingsley, MacDonald, and other nineteenth century writers will be considered, also existing tendencies in the work of John Galsworthy, Mary E. Mann, Arnold Bennet, Mrs. Humphrey Ward, etc. Miss Watson.

Three hours, both semesters.

(The three courses numbered 51 will be given in successive years. For 1912-13 the course will be 51c.)

52. *Living English Writers.* The Poets. Kipling, Meredith, Watson, Yeats, Stephen Phillips, Davidson, and others. (Not given in 1912-13.) Professor Howe.

Two hours, first semester.

53. *Living English Writers*. Prose. The essay, drama, and novel will be examined. (Not given in 1912-13.) Professor Howe.

Two hours, second semester.

54. *The Relation of English to Contemporary European Literature, during the last twenty-five years*. The Drama. Professor Howe.

Two hours, first semester.

55. *The Relation of English to Contemporary European Literature, during the last twenty-five years*. The Novel. Professor Howe.

Two hours, second semester.

(Courses 52-53, and 54-55 are given in alternate years. During 1912-13 the courses given will be 54-55.)

56. *Seminar in English Literature*. The course is preparatory to the writing of the thesis, and is required of all seniors and graduates taking a major in English Literature. Professor Howe.

Two hours, both semesters.

57. *A Critical Study of Shakespeare and of His Critics*. A limited number of plays will be examined in the light of the critics. Courses 45 and 46 are prerequisite to this course. Professor Howe.

Three hours, both semesters.

58. *Survey of English Critics*. A course intended to familiarize teachers with the epoch-making critical work in the literature. Open only to graduate students. Professor Howe.

Three hours, both semesters.

AMERICAN LITERATURE.

59. *American Literature*. Authors studied: Emerson, Poe, Hawthorne, Whitman, Lanier, and the New England group of poets. Later American writers so far as time allows. Miss Perkins.

Two hours, first semester.

60. *American Literature*. A study of American literary history up to about the year 1830. The Colonial, Revolutionary, and early Republican periods will be covered, and among the writers read and discussed, Franklin, Freneau, Brockden-Brown, Irving, Cooper, and Bryant. Open to freshmen. Miss Perkins.

Two hours, second semester.

61. *The American Short Story*. A study of the development of the short story, as exemplified in Irving, Poe, Hawthorne, Bret Harte, Mark Twain, Howells, James, Joel Chandler Harris, Mary Wilkins Freeman and others. Not open to freshmen. (Not given in 1912-13.) Miss Perkins. *Two hours.*

62. *Essays in Literary Criticism*. A study of selected essays from modern English and American literary critics, including Wordsworth, Coleridge, Hazlitt, Lamb, Arnold, Pater, Lowell, Woodberry, and Paul Elmer More. Miss Burgess. *Two hours.*

63. *The Teaching of English*. Lectures and papers. Required of all seniors who expect to teach English. Professors Howe and Thurber. *One hour, both semesters.*

64. *Readings from English Literature*. A course in which the finest parts of the literature are read aloud by the instructor. The class meets three hours per week for one hour's credit, no outside preparation being required of the students. (Not given in 1912-13.) Professor Howe. *One hour, both semesters.*

GEOLOGY.

Professor Collier.

1. *Geology*. This course gives a general knowledge of Geology and is designed either for those in other courses who desire an outline of the subject, or as a basis for more advanced work by those who would specialize in Geology. Lectures, collateral reading and field excursions. *Three hours, both semesters.*

3. *Economic Geology*. The geology of the valuable mineral deposits, including their occurrence, associations and genesis. The course also considers the methods employed in prospecting and in the development of ore bodies, as well as the annual production and possible need of conservation of the various mineral resources. Prerequisites, Geology 1 and Chemistry 1. *Three hours, both semesters.*

4. *Crystallography and Mineralogy*. A general study of minerals with a view to their identification and determination. The

course first takes up the study of the crystal forms of the different systems; then the methods of identifying minerals by their physical properties, as presented in either Frazer's or Eakle's Tables for the determination of minerals; and lastly, the blowpipe and other chemical tests. Prerequisites Geology 1 and Chemistry 1.

Two hours, both semesters.

5. *Petrology.* An introduction to the study of rocks, both by means of hand specimens and thin sections, following Pirsson's "Rocks and Rock Minerals." Prerequisite, Geology 4. One laboratory period and one lecture.

Two hours, first semester.

6. *Field Geology.* The geological mapping of an assigned area. Prerequisite, Geology 1. Two laboratory periods.

Two hours, second semester.

7. *Paleontology.* A brief preliminary course. The University is fortunate in having the collection of fossils made by the late Professor Thomas Condon, which is especially rich in Mesozoic and Cenozoic materials. A more extended course is to be given later. Prerequisites, Geology 1, and Biology.

One hour, both semesters.

8. *Advanced Geology.* A more thorough investigation of the principles of Geology than is possible in Geology 1, together with a study of the folios of the Geologic Atlas of the United States and other literature.

Three hours, both semesters.

10. *Mineral and Rock Identification.* A brief study of minerals and rocks designed primarily for those expecting to teach. It prepares the student to identify the more common constituents of the earth's crust. Prerequisite, Geology 1.

Two hours, first semester.

11. *Materials for Teaching Geology and Geography.* A course designed to give familiarity with the literature and laboratory equipment available for teaching these subjects in secondary schools.

One hour, second semester.

EQUIPMENT.

In the department of Geology the University of Oregon has a fine collection of illustrative material contained in the famous Condon "cabinet", which is well known to the older residents of

the State. This cabinet is especially rich in fossil remains and represents the fruits of over forty years of continuous exploration in the Oregon country by its pioneer geologist. The remains of many extinct animals such as the mammoth, the mastodon and the three-toed horse, as well as the implements of prehistoric man, make this collection strictly characteristic of Oregon's own geological record.

The University is also well supplied with characteristic mineral and rock specimens, part of which were collected by Prof. Condon and part acquired from other sources. For example, the plaster cast of the Willamette Meteorite was presented by Mr. A. S. Pattullo, of Portland, Oregon, and the Educational Series of Rocks was prepared by the United States Geological Survey. The museum is open to receive other specimens as gifts or loans, the University believing that such material is made of great service to the world at large if placed with some institution. In the new buildings now under construction a large, light, fire-proof room especially designed for housing and displaying the valuable and steadily growing collection of specimens, has been made a special feature.

GEOGRAPHY.

Professor Barker.

1. *Physiography*. The earth's features treated with special reference to their origin and development. Agencies of nature producing physiographic forms. Three lectures, Monday, Tuesday and Thursday at 10 A. M. *Three hours, first semester.*

2. *Physiography of the United States*. An advanced course in Physiography with special reference to the features of the United States. Two lectures. Prerequisites, Geography 1 and 4, Tuesday and Thursday at 11 A. M. *Two hours, first semester.*

3. *Field Geography*. A Study of land forms as developed around Eugene. Field work with a report and maps.

Determination of latitude and longitude by means of the sextant. Prerequisite, 1 and 4. Two afternoons.

Two hours, first semester.

4. *Principles of Geography.* Meaning and scope of Geography. Relations of Geography to other sciences. Distribution, development and characteristics of land forms with special references to their natural resources such as soils, and products of the soil, minerals and animals. Three lectures, Monday, Tuesday and Thursday, at 10 A. M. *Three hours, second semester.*

6. *History and Geographical Influences.* A study of geographic conditions which have influenced history, both ancient and modern. Three lectures, Monday, Wednesday, and Friday at 11 A. M. *Three hours, first semester.*

7. *Meteorology and Climatology.* A study of the principle of Meteorology with especial reference to the demands of those entering the service of the U. S. Weather Bureau. Two lectures and one laboratory period. Lectures, Tuesday and Thursday at 11 A. M. *Three hours, second semester.*

8. *Economic Geography.* A study of the economic resources of the continents. The geographic factors determining the location and utilization of natural resources. Three lectures, Monday, Wednesday and Friday, at 9 A. M. *Three hours, both semesters.*

9. *Teachers' Materials.* A course dealing with the literature and equipment for teaching Physical Geography. Friday at 10. *One hour, second semester.*

10. *American History and Geographic Influences.* A continuation of Course 6, with a special reference to America. References: Brigham, A. P. *Geographical Influences in American History.* Semple, E. C. *American History and its Geographic Conditions.* Three lectures, Monday, Wednesday, Friday, at 11 A. M. *Three hours, second semester.*

GERMANIC LANGUAGES AND LITERATURES.

Professor Schmidt.

Mr. Koehler.

Miss Denhart.

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

Opportunity is also given for graduate courses in Germanic 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.

The German Club (Verein Germania) is intended for students who are interested in conversation and lectures on German life and customs. From time to time programs are arranged to give students an insight into the musical and dramatic life of Germany. Students must have had several years of German before they are eligible to membership. Meetings take place twice a month.

Any of the following courses, German 1 to 12, are open to freshmen who have had the prerequisite courses:

GERMAN LANGUAGE AND LITERATURE.

1. *Elementary German.* The elementary course comprises: Vos's Essentials of German (Henry Holt), or Beginners' German by Dr. Max Walter and Dr. C. A. Krause (Charles Scribner's Sons); German Composition, Translation of Easy Prose and Poetry. Special attention is paid to systematic training in pronunciation. The reading of about one hundred and seventy-five pages of graduated texts from a reader is required. Huss' German Reader is used. In addition to this three or four of the following selections will be read: Storm's Immensee, Heyse's L'Arrabbiatta, Volkmann's Kleine Geschichten, Mærchen and Erzählungen, Seidel's Mærchen, Zschokke's Der Zerbrochene Krug.

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: Heyse's Das Mædchen von Treppi; Baumbach's Die Nonna; Wildenbruch's Das edle Blut; Hillern's Høher als die Kirche; Seidel's Leberecht Huehnchen; Hauff's Das Kalte Herz; Leander's Træumereien; 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 Galotti, Nathan der Weise; (d) Grillparzer's Sappho; (e) Kleist's Prinz Friedrich von Homburg. Writing of essays in German. 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 Schönheit; 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 or Frau Sorge; and Auerbach's Brigitta, Frenssen's Jörn Uhl, etc.

Three hours, both semesters.

This course alternates with course 18.

5. *Modern German Drama.* The following dramas will be read: Wildenbruch's Harold, Hauptmann's Die Versunkene Glocke; Sudermann's Johannes, or Heimat; Fulda's Der Talisman or Das verlorene Paradies; Hebbel's Agnes Bernauer or Herodes und Mariamne; Gutzkow's Zopf und Schwert, Uriel Acosta, etc.

Three hours, both semesters.

6. *German Poetry.* Goethe's Poems; Schiller's Ballads; Uhland'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, one semester.*

Poems and Epics. Scheffel's Trompeter von Saeckkingen, Thomas Anthology, etc.

One hour, one semester.

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.

9. *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*; Freytag's *Bilder aus der deutschen Vergangenheit* Seiler, *die Heimat der Indogermanen*, Schiller's *Geschichte des dreissigjährigen Krieges*, etc.

Two hours, one semester.

10. *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 will be 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 täglichen Leben*; Brewer's *Naturlehre*; Mueller's *die Electricischen 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.

Two hours, one semester.

11. *Teaching of Modern Languages, Especially German.* Discussion of methods, examination of texts. Open to seniors and special students who have not less than 20 hours' credit in German or French. Required of students who wish to be recommended as teachers of German or French in the high schools of the State.

One hour, one semester.

12. *Advanced German Composition.* Poll's or Jagemann's *Materials for Prose Composition*. *One hour, both semesters.*

13. *German Conversation.* Open to all students who have had courses 1 and 2, and required of students who wish to teach German. *Two hours, both semesters.*

14. *General History of German Literature.* Max Koch's *Deutsche Litteraturgeschichte* is used as a text-book. A limited number of lectures are given. *One hour, both semesters.*

15. *Scandinavian Literature.* Works of Ibsen, Bjoernson, etc., in standard translations will be read and discussed.

Two hours, one semester.

16. *German Culture and Civilization.* A course of illustrated lectures. Open to all students.

One hour, one semester.

17. *Germanic Mythology.* Texts: F. Kaufmann, Eugen Mogk, and Grimm.

One hour, one semester.

18. *The Nineteenth Century Novel.* Freytag's *Soll und Haben* or Rittmeister von Alt-Rosen; Meyer's *Juerg Jenatsch*; Sudermann's *Der Katzensteg*; Frenssen's *Joern Uhl*; Storm's *Der Schimmelreiter*; Riehl's *Kulturgeschichtliche Novellen*; Paul Heyse's *Das Glueck von Rothenburg*; Scheffel's *Ekkehard*; Ludwig's *Zwischen Himmel und Erde*; Dahn's *Ein Kampf um Rom*. In addition to this, suitable selections from Ganghofer, Rosegger, Auerbach, Ebner-Eschenbach, Spielhagen and others will be assigned for outside reading.

Three hours, 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:

20. *Middle High German.* Michels, *Mittelhochdeutsche Grammatik*, 1906; Henrici, *Proben der Dichtungen des Mittelalters*, Berlin, 1898; Selections from *Nibelungenlied*; Walter von der Vogelweide; *Parzival*; Lexer, *Mittelhochdeutsches Taschen-Wörterbuch*.

21. *Old High German.* Braune's *Althochdeutsche Grammatik*, and the same author's *althochdeutsches Lesebuch* (4th edition); Muellenhoff and Scherer's *Denkmäler Deutscher Poesie und Prosa* (3rd edition); Behaghel's *Historical Grammar of the German Language*.

22. *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.

23. *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 *History of German Literature* are used as textbooks. Papers on assigned topics will be required.

24. *Physiological Phonetics*. The sounds of English, German, and French. Grandgent, German, and English sounds (Boston, Ginn & Co., 1892); Ripmann's adaptation of Viëtor'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.

SCANDINAVIAN LANGUAGES AND LITERATURE.

These courses are open to students who have had the required amount of German necessary for graduation.

1. *Elementary Norwegian*. Principle of the grammar and the reading of easy prose. *Three hours, both semesters.*

2. *Elementary Swedish*. Principles of the grammar and the reading of easy prose. *Three hours, both semesters.*

GREEK LANGUAGE AND LITERATURE.

Professor Straub.

Inasmuch as Greek is not taught in the high schools of this State, the University will offer first and second year Greek, which may count as college credits toward graduation.

Students who have had two or three years of Greek may enter the second semester of the third or fourth year respectively. Students may also enter 14 and 16 of the second semester.

1. *Elementary Greek*. Gleason's *Greek Primer*.

Five hours, first semester.

2. *Xenophon's Anabasis*. (Harper and Wallace) Book I; Goodwin's *Greek Grammar*.

Five hours, second semester.

The aim of the first year is quality, not quantity. For this reason, the drill in Greek inflections and the common constructions is made as thorough as possible. In addition, every effort is made to increase the student's vocabulary. The "Word List" in Harper and Wallace's *Anabasis* is an excellent help in this direction.

3. *Anabasis*, continued. Books I, III, and IV. Greek Grammar reviewed. Critical study of Greek prepositions. Daily translations from English to Greek. Text-books, in addition to those used in course 2; Pearson's Greek Prose Composition, and Adam's Greek Prepositions. *Four hours, first semester.*

4. *Homer's Iliad*. (Seymour) Books I to IV. Homeric language and verse (Seymour). Jebb's Homer. Study of "The Homeric Palace" (Isham). Daily exercises in Greek prose continued. Special attention will be given to Homeric forms. The customs of the Homeric Greeks will be carefully studied. *Four hours, second semester.*

5. *Hellenistic Greek*. One or two of the Gospels will be studied and the general principles of Hellenistic Greek noted. *Four hours, first semester.*

6. *Hellenistic Greek*, continued. Selected portions of the New Testament. Selections from Septuagint will also be offered. *Four hours, second semester.*

(Courses 5 and 6 are intended chiefly for students who expect to prepare for the ministry, and are elective to other Greek students. Prerequisites: Courses 1 to 4, inclusive. Text-books: Wescott and Hort's Greek New Testament recommended. Conybeare and Stock's selections from the Septuagint [Ginn & Co.])

7. *Xenophon's Memorabilia*. Demosthenes' Phillippics. (Students will be required to read up the appropriate portions of the history of Greece, in order to study the above in their proper setting.) *Four hours, first semester.*

8. *Lysias' Orations*. (Morgan's or Adam's.) Selections from Herodotus. Advanced Greek prose composition. Study of Sanford's Three Thousand Classic Greek Word list. *Four hours, second semester.*

9. *Selections from the Plays of Euripides*. Study of the Attic Theater (Haigh). *Three hours, first semester.*

10. *Plato's Apology and Crito*. Croiset's Greek Literature. *Three hours, second semester.*

11. *Selections from the Comedies of Aristophanes.* Study of the influence of comedy on Greek thought and temperament.

Three hours, first semester.

12. *Demosthenes' De Corona.* (Goodwin.) Also suitable extracts from Aeschines' "Against Ctesephon." Study of Bredif's Life of Demosthenes.

Three hours, second semester.

GREEK-ENGLISH COURSE.

No Greek required. Open to all students.

The following eight courses are offered to students who have not taken Greek. They will give a fairly good insight into the religion, habits, and life of that wonderful people, whose institutions and civilization still make themselves felt at the present time, and whose influence still prevails strongly in modern thought.

13. *Greek Mythology.* Text-book: Gurber. Collateral reading: Bullfinch's Age of Fable. Informal talks.

One hour, first semester.

14. *History of Greek Art.* (Tarbell.) Greek Sculpture (Gardner).

One hour, second semester.

15. *History of Greek Literature.* From Homer to Theocritus (Edward Capps). Homeric Society (Keller).

One or two hours, first semester.

16. *The Life of the Ancient Greeks.* (Gulick). The Ancient City (Coulages). The Attic Theater (Haigh).

One or two hours, second semester.

FOR GRADUATES AND ADVANCED UNDERGRADUATES.

17. *Pindar's Odes and Fragments.* Thucidides, Books IV to VI.

Two hours, first semester.

18. *Selections from Aristotle.*

Two hours, first semester.

19. *Homer's Iliad.* Books VI to XXIV, read with a view to the study of the civilization and customs of the Homeric Tribes.

One hour, both semesters.

20. *Greek Epigraphy.* Text-book: Roberts'.

One hour, first semester.

21. *Greek Inscriptions*. Text-book: Hick's Manual of Greek Historical Inscriptions. *One hour, second semester.*

HISTORY OF ART.

Mrs. Pennell.

It is the purpose to make the work more complete from year to year. Beginning with September, 1912, two courses will be offered, each course continuing through both semesters. The first will cover Ancient and Mediæval Art; the second, Modern Art. Somewhat of Domestic Art will be introduced during the last term of the year. The University already has a useful collection of works of Art, together with portfolios of prints, and from time to time important additions are made to the department. (The instructor reserves the right to vary the courses.)

1. *Ancient and Mediæval Art*. *Three hours, both semesters.*
2. *Modern Art*. *Three hours, both semesters.*

HISTORY.

Professor Schafer.

Professor Clark.

FUNCTIONS OF THE DEPARTMENT.

The Department of History, in its relations to the University, has two main functions: To train historians, and to provide the necessary historical basis in the training of those whose major interest lies in other departments like literature, law, politics, economics, and education. A third but subordinate function is to furnish what are usually called "cultural courses" for a considerable number of students majoring in scientific departments who nevertheless desire to secure the benefit of some contact in a broad way with the humanites.

COURSES OFFERED.

For all purposes, the department offers in the year 1912-13 a schedule embracing nine courses, three of three hours per week, and six others of two hours per week each. Additional courses will be undertaken from year to year as the teaching force avail-

able in the department may allow. Students may begin work in the history courses at the beginning of either semester, and credit will be granted on the satisfactory completion of the work of either semester.

THE CONFERENCE METHOD OF INSTRUCTION.

The limited number of courses, as against some former years, is not due to a decrease in the teaching force but to the adoption by the department of the conference method of history study. This means that the body of students reporting for History 1 or History 2 will be treated as a class for only certain purposes, especially for receiving lectures and for discussing those main topics that constitute the landmarks of the course. But for outlining supplementary reading, for discussing significant points involved in it, for clearing up misconceptions concerning any portion of the work, and for deepening by special emphasis the impressions made upon the student's mind by facts and principles which should be held as fundamental, the class in some courses will be broken up into small groups each containing five or six students. These groups will confer with the professors once a week to the end that they may study the special needs of individual students, prescribe matter for reading and modes of study adapted to each special case, and thus secure the best mental development of which the student may be capable.

CONFERENCE GROUPS TO REPRESENT LIFE INTERESTS.

The conference method makes possible the grouping of students according to their special interests and therefore the shaping of each student's supplementary reading to meet his peculiar needs. Thus a student preparing to teach history in high schools can read, with a few of his fellows, such matter connected with the course as may best serve to fit for his prospective work as teacher. Those preparing for law or other life callings may likewise adapt their conference work to meet the requirements imposed by their special interests. Looked at from this viewpoint, and considering that it will be necessary for each professor to direct the work of a large number of conference groups, it will be seen that despite the

reduction in the number of formal courses the range of subject-matter covered will probably be greater than under the old system.

1. *World Movements of the Past Century.* The course has as a background the American Revolution, the French Revolution and the English Industrial Revolution of the eighteenth century. It will deal with such leading problems as the rise and progress of democracy in Europe and America, the anti-slavery movement throughout the world, expansion and colonization, international trade rivalries and commercial politics, the movement for universal peace. Prescribed for Freshmen majoring in history, elective for others. (Two lecture hours per week at 11 o'clock, one conference hour to be arranged.) Professor Schafer, Professor Clark.

Three hours, both semesters.

2. *The Great Historians.* The aim of this course is two-fold. On the one hand, it is intended to familiarize the student with the world's greatest writers of history, and to develop in him an appreciation of their works and a critical insight into the methods employed in producing them. On the other hand, it is a study of some of the more significant phases of world history through the great historians of ancient and modern times.

For sophomores majoring in history and others who may elect it. Lectures at 2 o'clock Tuesday and Thursday. Professor Schafer.

Two hours, both semesters.

3. *English Political Institutions.* Given in 1911-12 and alternate years. Professor Clark.

Two hours, both semesters.

4. *Political and Constitutional History of United States.* The emphasis will be upon those features of our political history which best interpret the American Constitution whether in its origin or in its several stages of growth to the present time. Professor Schafer.

Two hours, both semesters.

5. *American Statesmanship and Statesmen.* A study of leadership as illustrated in the political life of the nation. The aim will be to analyze the careers of leading statesmen of each epoch, from the Revolution to the present, in such manner as to discover if possible the secrets of their influence upon American public life. It will involve a concrete study of American political ideals, also a consideration of the political conditions which the statesmanship

of each period reflects and the issues which it personalizes. Professor Schafer.

Two hours, both semesters.

6. *English History*. From earliest times to present day, covering all phases of national development. Class discussions based on syllabus and text. Monday, Wednesday, and Friday at 8.

Three hours, both semesters.

7. (a) *Greek History*. First semester. (b) *Roman History*. A study of growth and decline of Rome, with special emphasis on imperial period. Second semester. Tuesday and Thursday at 11. Given in 1911-12 and alternate years. *Two hours, each semester.*

8. (a) *Medieval History*. From the barbarian invasions to the Renaissance. The main emphasis is laid upon development of medieval civilization. First semester. (b) *Renaissance and Reformation*. Second semester. Tuesday and Thursday at 11. Given in 1912-13 and alternate years. *Two hours, each semester.*

9. (a) *The French Revolution*. A preliminary study of eighteenth century social and political conditions, followed by a consideration of progress of Revolution to rise of Napoleon. First semester. (b) *Napoleon*. A study of his career and influence. Second semester. Given Tuesday and Thursday at 8.

Two hours, each semester.

LATIN LANGUAGE AND LITERATURE.

Professor Dunn.

COURSES PRIMARILY FOR UNDERGRADUATES.

(Courses 1-6 are designed for students who offer at entrance two and three years of Latin respectively. They are therefore essentially preliminary to courses 11-18, which are based upon titles more generally recognized as College Latin.)

1. *Selected Orations of Cicero*. Sallust's *Catilina*.

Four hours, first semester.

2. *Further Selections from Cicero*. Lives of *Nepos*.

Four hours, second semester.

Courses 1 and 2 combined may be termed third-year Latin, pre-supposing two years of previous study in the language. Three-

fourths of the year's work is given to Cicero's Orations—the seven to be read in 1912-13 including the four against Catiline and the Pro Lege Manilia. The Catilina of Sallust and the Lives of Nepos are employed as supplementary reading in their respective semesters.

3. *Vergil's Aeneid*, Ovid's *Metamorphoses*.

Four hours, first semester.

4. *Vergil's Aeneid Continued*, Fables of Phædrus.

Four hours, second semester.

Courses 3 and 4, taken consecutively, are designed to constitute fourth-year Latin, to which the equivalent of three years' work or graduation from courses 1 and 2 is required for registration. Selections from Ovid's *Metamorphoses*, about fifteen hundred lines in all, will be studied until the Christmas holidays, when the last six books of Vergil's *Aeneid* will form the basis of work for the remainder of the year. The Fables of Phædrus will form supplementary work in sight reading during the second semester.

Courses 3 and 4 or entrance credits in the equivalent are necessary to admission to course 11 and those that follow.

(Courses 11-18, 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 11 in the first semester of the Freshman year, to be succeeded by course 12 in the second semester, 13 and 14 in 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. Courses 11-14 are especially framed to cover as wide a variety of authors and subject-matter as possible. The avowed aim is purely extensive rather than intensive. Course 15 and those following are on the contrary more exhaustive and embody more systematic studies of special periods or authors. On the whole, the student will find it advantageous, though not essential, to follow out the series.)

11. *Cicero's De Amicitia*. Virgil's *Eclogues*; the *Captivi* of Plautus; selections from Catullus. *Three hours, first semester.*

Course 11 properly begins the usual college course in Latin and is open to students who present four years of Latin at entrance or have passed in course 2. A large portion of the authors read will be covered in sight reading.

12. *Selections from Horace's Odes and Epodes.* Sallust's Jugurtha; selections from Tibullus and Propertius.

Three hours, second semester.

With the lyrics of Horace and the Elegies of Tibullus and Propertius, course 12 covers a wide range in Latin poetry, relieved and supplemented by Sallust's prose monograph on the Jugurthine War.

13. *Selections from Horace's Satires and Epistles.* Livy, Book V; Ovid's Tristia, Books I and III. *Three hours, first semester.*

Course 13 affords an opportunity for students who have already had course 12 to continue the study of Horace, viewing him in quite a different field. The work of the course is divided between Horace and the study of Roman republican history from Livy. The instructor reserves some latitude of choice in the latter author, selecting Book V for 1912-13. Occasional passages will be cited from Ovid's Tristia.

14. *Terence's Andria;* Tacitus' Agricola; selections from Pliny's Letters; selections from Martial's Epigrams.

Three hours, second semester.

Two extremes of Latinity are here studied side by side—a play of the Ante-Classical Terence and selected readings from three masters of the Silver Age of Latin.

15. *Roman Law and Public Life.* *Two hours, first semester.*

This course will be based upon the text of selected orations of Cicero as a point of departure for the discussion of Roman political life and the investigation of certain periods in Roman history at first hand.

16. *The Roman Historians.* *Two hours, second semester.*

Selected epochs in Livy and Tacitus will be read for purposes of comparison and will serve as a nucleus around which to group a discussion of the methods of Roman historians and a running

review of the historians themselves from the annalists to the *Scriptores Historiæ Augustæ*.

17. *Roman Literary Criticism.* *Two hours, first semester.*

This course provides a rapid comparison of four of the great classic treatises on literary criticism—Cicero's *Brutus*, Horace's *De Arte Poetica*, Quintilian's Book X of the *Institutiones*, and Tacitus' *Dialogus*.

18. *Roman Philosophy.* *Two hours, second semester.*

Lectures covering the chief systems of doctrine prevailing among the Romans of the Classic Period will alternate with readings from Cicero's *De Officiis* and the best portions of Lucretius.

COURSES 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 of their fitness to satisfy the requirements of the courses. These courses are given usually in alternate years, as specified below in the descriptive paragraphs.

21. *History of Latin Literature.* Part I (poetry). Lectures and reading. *Three hours, both semesters.*

22. *History of Latin Literature.* Part II (prose). Lectures and reading. *Three hours, both semesters.*

Courses 21 and 22 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. Course 22 will be offered 1912-13.

23. *The Roman Theatre.* Terence (three selected Comedies). Fragments of lost authors. Lectures. *Two hours, first semester.*

24. *The Roman Theatre...* Plautus (three selected Comedies). Seneca (three selected Tragedies). Lectures.

Two hours, second semester.

Courses 23 and 24 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 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 and Terence selected will not include any of those usually read in courses 11 and 14. With this exception, the choice of plays to be read from the three authors may vary from year to year. To be omitted in 1912-13.

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

Two hours, first semester.

26. *Roman Satire*. Persius and Juvenal. Lectures.

Two hours, second semester.

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 Apokolocytosis of Seneca. The second semester will have for its special consideration the work of Juvenal and Persius, with more special reference to the second period of Juvenal's literary career.

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

Two hours, first semester.

28. *Ovid*. The Metamorphoses and Classic Mythology.

Two hours, second semester.

Ovid's work presents a rich field for research in many affiliated branches of classical science. Course 27 in the first semester makes the Fasti the basis of lectures and reading in Roman religion and the temple-archæology 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 28 comprises a research into Greek and Roman Mythology, with the Metamorphoses as a background.

29. *Epistolary Latin*. Select Epistles of Cicero and Seneca.

Two hours, first semester.

30. *Epistolary Latin.* Select Epistles of Pliny and Fronto.

Two hours, second semester.

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 course 14.

31. *The Corpus Caesarianum.* The Gallic War. Lectures and reading.

Two hours, first semester.

32. *The Corpus Caesarianum.* The Civil War and Libri Incertorum Auctorum. Lectures and reading.

Two hours, second semester.

Courses 31 and 32, though covering distinct epochs in the Corpus passing under Cæsar's name, are invaluable as a unit to teachers of Latin. Not merely Cæsar's text, but all the so-called "helps" that have accrued about Cæsar, will be discussed and illustrated in lectures. Themes for special investigation will be suggested and theses required occasionally.

33. *The Works of Vergil.* The Carmina Minora. Lectures and reading.

Two hours, first semester.

34. *The Works of Vergil.* The Aeneid. Lectures and reading.

Two hours, second semester.

Courses 33 and 34 to be omitted in 1911-12.

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 33, while the Aeneid will constitute the basis of work in the second half year.

35. *Topography of Rome.* Lectures and Investigation.

Two hours, both semesters.

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.

36. *The Reign of Trajan.*

Two hours, first semester.

Trajan's reign will be studied from every possible standpoint—from Pliny's Letters, from inscriptions and from monumental remains.

37. *Latin Composition.*

One hour, both semesters.

Course 37 provides advanced composition drill, particularly for those who have had four years of Latin. Sustained narrative and occasional unseen passages form the basis of translation.

MATHEMATICS.

Professor DeCou.

Assistant Professor Leonard.

Mr. Kempthorne.

Mr. Reid.

The instruction in Mathematics is designed to secure three 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; third, the thorough preparation of teachers of high school mathematics.

Courses 1 and 3 are designed for students in literary courses who desire to secure a good foundation for their work in the sciences, and for those who expect to teach mathematics in conjunction with other high school subjects.

The courses fundamental to engineers are as follows: Freshman year, course 2; sophomore year, course 4; junior year, course 17. These courses are recommended also to students who intend to make mathematics their major.

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.

Freshmen, entering the second semester, may take courses 1, 2, and 6, if sufficiently prepared.

GENERAL COURSES.

1. *Advanced Algebra and Plane Trigonometry.* An elementary course. Open to freshmen. *Three hours, both semesters.*

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

3. *Analytical Geometry and Calculus.* An introductory course for literary and general scientific students. Prerequisite, course 1. Open to Freshmen who have had the equivalent of Course 1. *Three hours, both semesters.*

4. *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 2. Required of sophomores in Engineering courses. Elective for others. *Five hours, both semesters.*

5. *Computation.* A course dealing with short practical methods in various subjects. *One hour, both semesters.*

6. *Advanced Algebra and Spherical Trigonometry.* A continuation of the Advanced Algebra of courses 1 and 2, together with an introduction to spherical trigonometry. *Two hours, one semester.*

7. *History of Mathematics.* A brief survey of the most important developments of the subject. *One hour, one semester.*

8. *Teaching of Mathematics.* Dealing largely with the teaching of mathematics in secondary schools and treated from the historical standpoint. *One hour, one semester.*

ADVANCED AND GRADUATE COURSES.

9. *Differential Equations.* A practical course in the theory of ordinary and partial differential equations and their solutions. Prerequisites, courses 2 and 4. Textbook: Murray's Differential Equations. *Two hours, both semesters.*

10. *Higher Algebra*. A more advanced and rigorous treatment of the topics of the preceding courses, together with the addition of many new topics. *Three hours, one semester.*

11. *Determinants and Theory of Equations*. An elementary but very important course, giving the essential principles required in various advanced studies. Text: Burnside and Panton. *Three hours, one semester.*

12. *Solid Analytical Geometry*. An advanced course dealing with surfaces of the second degree and their properties, together with some discussion of surfaces in general. Textbook: Rudio's Solid Geometry. *Three hours, one semester.*

13. *Advanced Integral Calculus*. Including definite integrals, Fourier series, elements of elliptic integrals and functions. Prerequisite, course 4. *Three hours, both semesters.*

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

15. *Analytical Trigonometry*. *Three hours, one semester.*

16. *Projective Geometry*. An introductory course based on Holgate's translation of Reye's Geometric der Lage. *Three hours, one semester.*

17. *Analytical Mechanics*. An elementary course dealing with the principles and application of statics, kinematics, and kinetics. Prerequisite, course 4. Required of juniors in Engineering courses. *Three hours, both semesters.*

ASTRONOMY.

1. *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. *Two hours, both semesters.*

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 the Theory of Numbers.

EQUIPMENT.

The department is provided with a well-selected library of the best American and foreign works, in addition to a large collection of elementary texts for pedagogical purposes. It has a complete file of the American mathematical journals and receives regularly the current numbers of these journals and some foreign ones.

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 coinoids. A spherical blackboard, three feet in diameter, blackboard apparatus for use in geometrical constructions, and numerous models and drawings constructed by the students add materially to the equipment. A complete set of mensuration blocks and models is used in the study of geometry teaching.

PHILOSOPHY.

President Campbell.

Assistant Professor Conklin.

1. *Greek Philosophy*. Prefaced by a sketch of the fundamental problems of philosophy and by the mastery of the technical vocabulary of philosophy. Course consists of lectures, recitations, and reports. Each member of the class reads at least four of the Greek philosophical classics and reports upon the same. Dr. Conklin.

Three hours, first semester.

2. *Modern Philosophy*. This course consists of the outlines of modern speculation beginning with Descartes and Bacon. The members of the class during the latter part of the course master and criticize at least one current system of philosophy. Dr. Conklin.
Three hours, second semester.

3. *Principles of Logic*. Text-book and lectures. Dr. Conklin.
Two hours, first semester.

4. *Principles of Ethics*. History of ethical speculation with outlines of chief modern systems. Text-book and lectures. Dr. Conklin.
Two hours, second semester.

5. *Kant—Critiques of Pure Reason and of Practical Reason*. Text and lectures. President Campbell.
Two hours, first semester.

6. *Herbert Spencer—First Principles and Synthetic Philosophy*. Text and lectures. President Campbell.
Two hours, second semester.

PHYSICAL EDUCATION—MEN.

Mr. Hayward.

Two hours a week in the gymnasium classes are required of all students during the freshman and sophomore years.

The new gymnasium is fitted with all modern gymnastic apparatus. The main hall is 59x106 feet, with a 26-foot ceiling. On the same floor is the office of the director, a room for anthropometry, and a tube hand-ball court 20x20x50 feet; there is also a gallery for spectators with a seating capacity of 450. Eight feet above the gallery is a 16-lap cork running track nine feet wide. The basement is fitted up with steel lockers, shower baths, and a swimming pool 30x60 feet, with a gradual slope from three and one-half to nine feet in depth.

The department is conducted upon scientific principles. 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 precision and skill to train nerve centers and muscles to act quickly and accu-

ately in response to the will; and to produce mental and moral self-control.

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 association which promotes outdoor athletics. They are also permitted by the faculty to participate in intercollegiate sports. In these games 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. Secondary and class teams are formed to give the University teams practice, and in order to touch as many students as possible.

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

PHYSICAL EDUCATION—WOMEN.

Dr. Stuart.
Miss Thomson

Physical education is treated as a part of college work. Two hours a week in the gymnasium classes are required of all girls during the freshman and sophomore years.

The department is conducted upon scientific principles. Its aim is hygienic, educative and recreative. It attempts to aid the normal functioning of the organs of the body; to improve muscular development; to correct abnormalities, and to supply recreation.

The women's gymnasium is a brick building containing on the first floor, the gymnasium proper with a floor space of 40x85 feet; the office of the director; a small laboratory with all apparatus necessary for making blood, sputum, and bacteriological examinations; and a room equipped with apparatus for corrective gymnastic work—work adapted to the individual needs of girls physically unable to undertake the general class work. The basement contains two rooms, the larger of which is fitted up with

200 steel lockers, 35 dressing rooms, and 35 shower baths. The smaller is used for an examining room and anthropometry. Before beginning gymnasium work each girl receives a thorough physical examination by the director, a physician, and work is assigned accordingly. Especial attention is given to the correction of incorrect posture and any abnormal condition which can be benefited by intelligent exercise.

Tennis is the chief out-of-door sport. A tournament is held each year to decide the college championship.

Owing to the necessity of having uniform gymnasium suits, they should not be purchased before entering college. If necessary to do this, communication should first be made with the director in regard to material and style required.

PRACTICAL COURSES.

1. *General Gymnastics.* The exercises for the first year are based upon the Swedish system of gymnastics, and have for their object an "all round" development. This necessitates a correct posture; a certain amount of muscular development; power of co-ordination and the proper functioning of the vital organs of respiration, circulation and nutrition.

In the fall and spring months out-of-door sports, tennis, golf, field hockey and archery are taught.

2. *General Gymnastics.* Continuation of Course I. Supplemented by drills with light apparatus, wands, dumb bells, clubs, fancy steps, dances and military marching. Required of all Sophomores.

3. *Special Corrective Exercises.* Individual exercises given to those students who for physical reasons are unable to take the regular class work; or who have defects which can be corrected or improved.

4. *General Gymnastics.* A continuation of Courses I and II; consisting of more advanced work along the same lines. Open to all who have completed Courses I and II.

5. *Gymnastic Dancing.* Beginning work in gymnastic dancing; Gilbert dances; aesthetic dances; folk dances and couple

dances. It develops grace and ease of movement and carriage and considerable amount of endurance.

6. *Advanced Gymnastic Dancing.* Advanced class in gymnastic dancing. Open to all who have completed course 5.

7. *Personal Hygiene.* This course is especially designed for first year students. It is a study of the means of preserving and improving the health; it takes up dietetics, clothing, breathing, ventilation, prevention of ordinary diseases, tuberculosis and typhoid fever, the anatomy, physiology and hygiene of the pelvic organs.

One hour, two semesters.

THEORETICAL COURSES.

Students majoring in Department of Education may take their major work in the Department of Physical Training. Such students must take courses prescribed below and in addition five hours per week for four years of practical gymnastic work.

Students majoring in other departments may take their minor work in Physical Training. They must complete a minimum of twelve semester hours of theoretical work in the Department of Physical Training, and must take five hours per week for four years of the practical gymnasium work. (Courses 1, 2, 3, 4, 5, 6.)

8. *Theory of Physical Training.* Study of the fundamental principles underlying the various systems of gymnastics; the principles governing the selection and classification of exercises; the physiology of exercises dealing with the causes of muscular over-work, breathlessness, fatigue, exhaustion and chronic muscular overwork, and the physiology of exercises of strength, speed, endurance and skill. The various groups of exercises in Swedish Day's Order are analyzed and the progression of exercises studied. Practice lessons for the gymnasium and school room. Prerequisite, Physiology 1. Reference books: LeGrange, Physiology of Exercise, Posse, Special Kinesiology and Educational Gymnastics.

Two hours, first semester.

9. *Kinesiology.* The analysis of exercises and the mechanism of movement, to determine the effectiveness of the different forms of gymnastic work in regard to posture and motor education. The joints and muscles of the shoulder, girdle, spine, pelvis and

extremities are discussed and effects of exercises noted. Prerequisites: Course II and Applied Anatomy. Text-book: Skarstrom "Gymnastic Kinesiology." *Two hours, second semester.*

10. *Applied Anatomy.* Study of the frame work of the body; the principal muscle groups; and the muscles in the performance of exercises. Prerequisite, Botany, Zoology.

Two hours, first semester.

11. *Human Anatomy.* This course comprises a study of the organs of the body and their structure and function; the principal blood vessels and nerves. Nancrede's Text Book: Essentials of Anatomy. Lectures and demonstrations. Prerequisites: Botany, Zoology, Applied Anatomy.

Two hours, second semester.

12. *Anthropometry.* Instruction and practice in taking physical measurements; a study of the vibrations from the normal types of the human body; and the bearing of family and previous personal history upon the present condition of individuals. Prerequisites: Applied Anatomy, Human Anatomy. Text Book: Seaver—Anthropometry.

Two hours, second semester.

13. *Emergencies and Bandaging.* Cause, nature and treatment of wounds, bruises, sprains, fractures, faints, shocks, etc., bandaging, dressings, antiseptics and disinfectants. Lectures and demonstrations. Reference book: Wharton's Minor Surgery.

One hour, first semester.

14. *Theory of Corrective Gymnastics.* Lectures, demonstrations and assigned readings on the application of exercises and massage to correct such deformities as lateral curvature of the spine; round shoulders, flat-foot, and all postural deformities, and the effect of special exercises upon digestive troubles; disorders of the circulation; nervous diseases; obesity, etc. Study is made of the technique and effect of massage and practice given in acquiring technique. Prerequisites: Human Anatomy, Applied Anatomy, Bacteriology, Physiology, Anthropometry, Emergencies. Reference books: Wide's Medical Gymnastics; Mitchell's Mechano Therapy; Kelgren's Manual of Treatment; Posse's Manual of Medical Gymnastics.

Two hours, second semester.

15. *Clinic and Corrective Gymnastics.* Students will assist in treating patients. Five hours per week, three hours' credit.

Three hours, one semester.

16. *Theory of Play and Playgrounds.* A study of play from the standpoint of its influence as a social and educational force. A history of the playground movement; the organization of playgrounds; equipment, apparatus, supervision, play-leaders, etc. Prerequisites: General Psychology, Sociology, Genetic Psychology.

Two hours, one semester.

17. *Methodology of Gymnastics.* Practice work in the University gymnasium and in the grade schools of the city. Prerequisites: Courses 3, 4, 7, in Education and courses 8, 9, 14, 16, Physical Training. Given both semesters.

Five hours, one semester.

PHYSICS.

Professor Boynton.

Mr. Bond.

Courses 1 and 2 are of essentially the same grade, each pre-supposing a year of high school physics. Course 1 is especially intended for students in the College of Literature, Science, and the Arts. Course 2 is intended primarily for Engineering students, giving more attention to the mathematical theory, and to problem work. Either course should be accompanied by course 3 as laboratory work. Additional laboratory can be elected as course 18.

Lecture courses supplementary to courses 1 and 2 will be announced from time to time under the numbers 4-7.

Prospective teachers of high school physics wishing the recommendation of the department should take at least 10 semester hours of work in the department, including courses 1 or 2, 3, 8 and 9.

No credit is given for less than the full work of a course. 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 deposit of \$5.00 is required for each laboratory course each semester. The usual expense for courses 3, 12, and 13 is \$2.50 per semester.

GENERAL COURSES.

1. *General Physics.* A general non-mathematical course, open to all students who have satisfied the matriculation requirements, at the beginning of each semester. This is a recitation course, and should be accompanied by course 3 in the laboratory.

Three hours, both semesters.

2. *Physics for Engineers.* A course of the same general grade as course 1, but given especially to meet the needs of Engineering students. This course should be taken either in freshman or sophomore year, and accompanied by course 3.

Three hours, both semesters.

3. *Physical Measurements.* A general laboratory course designed to accompany course 1 or 2. *One hour, both semesters.*

4, 5, 6, 7. *Selected Topics.* A series of experimental lectures on topics of interest, such as sound and its applications to the study of music, the gyroscope, wireless telegraphy, radio-activity, diffraction and polarization of light, etc. The hours and special topics will be announced at the opening of each semester.

8. *History of Physics.* A brief survey of the most important developments of the subject.

One hour, one semester.

9. *Teaching of Physics.* Dealing largely with the teaching of Physics in secondary schools, and treated from the historical standpoint.

One hour, one semester.

ADVANCED COURSES.

11. *Analytical Mechanics.* Also announced as Mathematics 17. Prerequisite, Differential and Integral Calculus. Required of juniors in the Engineering courses. *Three hours, both semesters.*

12. *Electrical Measurements.* Prerequisite, Physics 1 or 2 and 3, and Mathematics 2 or 3. Laboratory and lectures, mainly on direct currents, including a study of standards, the calibration of commercial instruments by the potentiometer, etc. Required of sophomores in the course in Electrical Engineering.

Two hours, first semester.

13. *Electrical Measurements.* A continuation of course 12, taking up the measurement of capacities, inductances, and an introduction to alternating current measurements. Required of sophomores in the course in Electrical Engineering.

Two hours, second semester.

14. *Thermodynamics.* Prerequisites, Physics 1 or 2, and Differential and Integral Calculus. 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. Especially recommended to students specializing in Physics or Physical Chemistry.

Three hours, first semester.

15. *Molecular Physics.* A continuation of course 14, including the Kinetic theory of gases and liquids; the deduction and further discussion of van der Waal's equation, and the theoretical aspects of the theory of solutions.

Three hours, second semester.

16. *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 1 or 2, and Differential and Integral Calculus.

Three hours, either semester.

17. *Harmonic Motion.* The analytical treatment of wave motions, with applications to sound, light, and electricity. Prerequisites, Physics 1 or 2, and Differential and Integral Calculus, and at least one semester of Analytical Mechanics.

Three hours, either semester.

18. *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.

COURSES PRIMARILY FOR GRADUATES.

21. *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.

22. *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.

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

EQUIPMENT.

The physical lecture room has a seating capacity of about 60 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 is used for projection and demonstrations in light.

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 75 amperes. A basement room provided with substantial masonry piers is used for advanced work and for experiments requiring great stability.

The equipment of the department includes cases for apparatus; a considerable equipment for the elementary laboratory; apparatus for the determination of the Mechanical Equivalent of Heat according to Pulu; standard thermometers with certificates from the German Reichsanstalt; photometers, a Michelson interferometer, and other important optical instruments for the advanced laboratory; a large balance, and an equipment of modern steel rod supports for the lecture room; and a notable equipment for electrical measurements, including resistances, standard capacities and inductances, a potentiometer and galvanometers from the Leeds and Northrup Co.; ammeters and voltmeters from the American Instrument Co., and from the Weston Electrical Instrument Co., wattmeters and dynamometers, and a standard Ohm by Otto Wolff, and Weston Standard cells including some which have been compared with those of the National Bureau of Standards.

PSYCHOLOGY.

Professor Bennett.
Assistant Professor Conklin.

Courses in this department are not open to freshmen except in special cases.

1. *Elementary General Psychology.* Lectures, discussions and classroom demonstrations covering in a general way the elements of consciousness, their physical substrate, and the higher complex states and processes from both the structural and functional view points. Prerequisite to all other courses in Psychology. Text-book: Angell's Psychology. *Three hours, both semesters.*

2. *Experimental and Physiological Psychology.* Designed for advanced students who desire the methods and results of experimentally controlled introspective work. Practice experimental work will be done by each student so far as laboratory facilities permit. During a large part of the year an afternoon laboratory period will take the place of one of the announced lecture hours. Text-books: Titchener's Text-book and Laboratory Manual.

Two hours, both semesters.

3. *Mental Hygiene.* This course will cover the conditions of efficient mental activity so far as they have been determined, the methods and the results of the studies of mental fatigue, neuroses of development with special application to the problems of education, and the psychology, examination and treatment of subnormal and backward children.

Two hours, first semester.

4. *Pre-medical or Abnormal Psychology.* Designed for pre-medical students and for majors in physical training. Aphasias, amnesias, hysteria, dual personality, theories of the subconscious, sleep, dreams, synopsis, dissociations, fixed ideas, psychotherapy, and the common types of insanity will be presented in lectures and discussions.

Two hours, second semester.

5. *Psychology of Feeling and Emotion.* Studies of the genesis of emotions, characteristics of the different emotions, experimental studies of emotion, theories of emotion and the affective element, and the relation of emotion to the higher thought processes.

Two hours, first semester.

Course 5 and a co-ordinate course in the second semester will be given during the year 1912-13 if conditions permit.

For courses in genetic psychology and the pedagogical applications of psychology see the announcement of the department of education.

EQUIPMENT.

The Psychological Laboratory occupies a room in McClure Hall adjoining the Psychological Lecture Room and is equipped for a limited number of students. It has a considerable store of the more simple apparatus and is being enlarged from time to time. For demonstrational work in connection with the courses in general psychology and mental hygiene the equipment is already good, making it possible to illustrate the principal methods of experimental study of the sensations, attention, emotional expression, fatigue, reaction times, etc. These facilities will be added to as rapidly as conditions permit and an increasing emphasis will be placed upon laboratory work.

PUBLIC SPEAKING.

Professor Reddie.

1. *Public Speaking.* Vocal culture, platform deportment and gesture. Delivery of short selections and impromptu speaking. This course will be divided into sections of twelve. Professor Reddie.

One hour, both semesters.

2. *Public Speaking.* Advanced vocal culture, with special stress on the study of the anatomy of the vocal organs, and the development of tone quality. Interpretation of standard literature and impromptu speaking. Open only to those who have taken course 1. Professor Reddie.

One hour, both semesters.

3. *Public Speaking.* Advanced vocal culture, including further development along the line of the work taken in course 2, with special reference to tone color and analysis. The interpretation of classic and standard literature and prepared talks on subjects of special interest to the students forming the class. Professor Reddie.

One hour, both semesters.

4. *Public Speaking.* A continuation of course 3. Studies in analysis. Interpretation of Shakespeare. Prepared talks. Professor Reddie.
One hour, both semesters.

5. *The Public Speech: Its Composition and Its Forms.* Study of the principles of structure and style of the public address; also the study of the most important kinds of public addresses, including the eulogy, the after-dinner speech, the sermon, the political speech and the platform oration. Training in analysis, brief-drawing, evidence, and refutation. The writing of speeches with careful attention to both matter and form. Masterpieces of oratory read and analyzed. The purpose of the course is twofold: To afford special training to those who wish to enter the competition for the various forensic contests of the University, but more especially, to give instruction in the practical speech demanded in business, professional and political life. Open only to those who have had English Composition 1 or its equivalent. Assistant Professor ———.

Two hours, both semesters.

6. *Extempore Speaking.* Practice in the preparation and delivery of short speeches on subjects taken from history, economics, education and literature, and on the topics of the day. Two hours of recitation, one hour of credit. Open only to those who have had or are taking course 1. Professor Reddie.

One hour, each semester.

7. *Practical Public Speaking.* Open only to those who have had courses 5 and 6. Practice in the presentation of the various forms of public address. Half-hour speeches required. So far as possible, the conditions under which the students speak are made those which confront the public speaker out in life. The course is eminently practical, and is recommended to those who desire to become proficient speakers. Assistant Professor ———.

One hour, each semester.

8. *Parliamentary Procedure.* Study of the principles of parliamentary law. Instruction given in the methods of organizing societies and conducting public meetings. Assistant Professor ———.

Two hours, first semester.

ROMANCE LANGUAGES AND LITERATURES.

Professor Cloran.

Miss Lathrop.

Miss Bergman.

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 textbook is used. Translation at hearing. French conversation.

Five hours, both semesters.

2. *Advanced French.* Composition and syntax on the basis of Fraser and Squair's French Grammar, Part II. Reading of prose and verse. Selections will be read from the following authors: Bazin, Loti, Hugo, Gautier, Balzac, De Vigny, About. French conversation.

Four hours, both semesters.

3. *History of French Literature in the Seventeenth Century.* Selections will be read from Racine, Moliere, Corneille, Bossuet, Pascal, and Boileau. 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: Selections from the works of Rousseau, Voltaire, Beaumarchais, Chateaubriand, Beranger, Alfred de Musset, Alfred de Vigny, Lamartine, Gautier, and Victor Hugo. Course 4 alternates with course 3.

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. Bowen's 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.* Open to students who have had one year of French and who are taking courses 2, 3, or 4.

One hour, both semesters.

7. *Advanced French Conversation.* One hour, both semesters.
8. *History of French Literature and French Civilization.* Open to students who have had two years of French.
Three hours, both semesters.
9. *Lectures on French, Spanish, and Italian Literature of today.*
One hour, both semesters.

FOR GRADUATES AND ADVANCED UNDERGRADUATES.

10. *Old French.* Lectures on old French Phonology and Morphology. Students shall provide themselves in advance with Gaston's *Paris's Extraits de la Chanson de Roland*, and Schwan-Behren's *Grammaire de l'ancien francais*, traduction de Bloc (Leipzig, 1900). Other books used are Koerting, *Lateinisch-romanisches Wörterbuch*, Paris' edition of *La Vie de St. Alexis* (Paris, 1903).
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.
11. *Teaching of French and Spanish.* Methods and text-books.
One hour, second semester.

SPANISH.

1. *Elementary Spanish.* Olmsted's *Spanish Grammar*; Alarcon, *El Capitan Veneno*; Padre Isla, *Gil Blas de Santillana*; Spanish conversation. The course is open to students who have had two years of Latin.
Three hours, both semesters.
2. *Advanced Spanish.* Modern Spanish Literature. Palacio Valdes, Perez Paldos, Alarcon, Valera, Echegaray, Becquer, and Pereda. Spanish conversation.
Two hours, both semesters.
3. *Classical Spanish.* Cervantes, *Don Quixote* (selections); selected plays of Lope de Vega, and Calderon.
Two hours, both semesters.

ITALIAN.

1. *Elementary Italian.* Grandgent's *Italian Grammar*; Bowen's *First Italian Readings*; Reading of Modern Prose. This course will be open to students who have had two years of French or four years of Latin.
Two hours, both semesters.

2. *Advanced Italian.* The classic period of Italian Literature. Readings from Dante, Boccaccio and Petrarch. Courses 1 and 2 are given in alternate years. *Two hours, both semesters.*

3. *Dante and Tasso.* The works of Dante and Tasso in English translations. *Two hours, both semesters.*

ZOOLOGY.

Professor Bovard.

Mr. Wheelon.

(a) *Introductory Courses* in general Zoology and elementary Physiology for students seeking general culture. Zoology 1, 2, 11, and 12.

(b) *Teachers' Courses*, for those who expect to teach science in the high schools, more especially Physiology. Zoology 11 and 12.

(c) *Advanced Courses* in Zoology, Anatomy, and Physiology for students making Zoology their major and for those in the pre-medical department.

(d) *Pre-Medical Department.* Courses for students intending to study Medicine and Dentistry.* The work is designed to lay as broad a foundation as possible for the work in the Medical College and to give the student some idea of the work he has chosen as his profession.

Credit for Work in the Pre-Medical Department. On the completion of the course and on the recommendation of the department, students will be given one year's credit at the University of Oregon Medical School at Portland.

A pre-medical course should include courses in Zoology and Physiology; Botany and Bacteriology; Chemistry, Inorganic and Organic; at least a year of Physics with laboratory practice; and a reading knowledge of French and German.

Pre-medical courses in this department: Freshman year, Zoology 1 and 2; sophomore year, Zoology 3, 14; junior year, Zoology 4 and 5; senior year, Zoology 6, 7, 8, and 13.

*Those intending to study Pharmacy should see Botany, under Announcement of Courses.

1. *Invertebrate Zoology*. Three lectures and one laboratory period. The lecture work will cover the General Principles of Zoology, the characteristics of the main groups of the animal kingdom, the life histories of some of the most important forms, and the general principles of physiology as taught by comparative Zoology. Open to all students. *Four hours, first semester.*

2. *Vertebrate Zoology*. Two lectures and two laboratory periods. A continuation of course 1, using vertebrate types. Prerequisite to all higher courses in this department. Open to all freshmen. *Four hours, second semester.*

3. *Comparative Anatomy*. Two lectures and two laboratory periods. A general course on the development of the Vertebrate. Lectures on the anatomy and zoology of lower vertebrates, the osteology and evolution of the higher forms. The laboratory work covers the comparative study of selected types of vertebrates. This course should precede Course 14. Open to all students. *Four hours, first semester.*

4. *Histology*. Two lectures and two laboratory periods. A detailed study of the tissues and the organs of the body, the preparation of microscopical slides. Open to all students who have had Courses 1 and 2; Prescribed for Premedic Students. *Four hours, first semester.*

6. *Vertebrate Embryology*. Two lectures and two laboratory periods. The development of the chick and a comparison with some of the other vertebrate types. Prerequisite, courses 1 and 2. *Four hours, second semester.*

7. *Physiology*. Three lectures and one laboratory period. Blood Circulation, Respiration, Muscle, Nerve, Reproduction, and the Nervous System. Prerequisites, courses 3, 4, and 5, Organic Chemistry, and one year of Physics. *Four hours, first semester.*

8. *Physiology*. Three lectures and one laboratory period. Digestion, Metabolism, Dietetics, Excretion, and Animal Heat. Prerequisites, courses 3, 4, and 5, Organic Chemistry, and at least a year in Physics. *Four hours, second semester.*

9. *Seminar*. One hour each week. Discussion of current literature. Students will be given topics on Zoological Problems

and expected to report on the literature and general status of the subject.

One hour, both semesters.

10. *Research Laboratory.* Original work on some Zoological problem by the student under the guidance of the instructor. Credit to be based on the character of the work.

Hours to be arranged.

11. *Elementary Physiology.* Two lectures and one laboratory period. A course in the elements of Physiology designed for those who intend to teach science, especially Physiology, in the high schools. The work will be based on Hough and Sedgwick's book "The Human Mechanism," and will consist of recitations, lectures on special topics, and simple experiments adapted for high school use. Open to all.

Three hours, first semester.

12. *Nature Study.* Two lectures and one laboratory period. The lectures and the assigned readings cover the History of Zoology, the Distribution of Animals, and the Life History of some of the most important species. The laboratory work consists in the examination of the local fauna, with special emphasis on the Life Histories of these forms. Frequent excursions will be made to study birds and other animals.

Three hours, second semester.

13. *Osteology.* One lecture and one laboratory period. A study of Human Osteology. Required of all pre-medical students during the senior or junior years.

Two hours, second semester.

14. *Mammalian Anatomy.* One lecture and three laboratory periods. A course in dissection of a typical mammal, intended for those going into medicine, or the advanced work in Physiology.

Four hours, second semester.

15. *Bionomic Problems.* Two lectures. Lectures and demonstrations on the Life History of certain forms, their behavior, conditions of existence; the geographical distribution of animals; factors and evidences of evolution, results of modern experimentation on evolution; theories of development and heredity. Open to all students.

Two hours, second semester.

16. *Marine Zoology.* Work will be carried on at the Marine Biological Laboratory at Puget Sound, Friday Harbor, Washington. The work will be done under the direction of the Department

of Zoology of the University of Oregon. Credit will be given on the same basis as the Summer School work at Eugene.

17. *Studies of Birds.* One lecture and one laboratory. Lectures and field work devoted to the study of the habits, classification, methods of flight, color, feeding habits, etc.

Two hours, second semester.

18. *History of Zoology.* One lecture. Lectures on the Historical Foundations of Zoology, the origin and development of modern Zoological problems.

One hour, first semester.

EQUIPMENT.

The Zoological laboratories are equipped with microscopes, models, and other apparatus for all the ordinary work in Zoology, Microscopical Anatomy, and Physiology; and a number of skeletons for work in Comparative Anatomy and Human Osteology. The department will endeavor to furnish special apparatus as the occasion demands.

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 salmonidæ 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.

LABORATORY FEES IN ZOOLOGY.

A deposit fee is required in all courses in this department, with the exception of Zoology 9, 11, 15, and 18. In the courses requiring laboratory deposits, the fee for Zoology 1, 2, 12 and 18 is \$2.00; the remainder, \$5.00.

Although the apparatus loaned to the student is expensive, the fee is not intended to meet this in any measure but to cover the cost of the materials used and the apparatus not returnable. A certain portion of the fee is returned to the student in all courses except Zoology 1, 2, 12, and 17, if there has been no breakage, or in case the money has not been used to buy additional materials. The usual expense to the student in the advanced courses is from \$2.50 to \$4.00.

COLLEGE OF ENGINEERING.**THE FACULTY.**

P. L. CAMPBELL, B. A. President.

EDWARD HIRAM MCALISTER, M. A., Dean of the College of Engineering and Professor of Civil Engineering.

PERCY PAGET ADAMS, B. S., Assistant Professor of Civil Engineering.

FRANKLIN L. BARKER, E. M., Professor of Geography.

JAMES D. BARNETT, Ph. D., Professor of Political Science.

JOHN FREEMAN BOVARD, M. S., Professor of Zoology.

WILLIAM PINGRY BOYNTON, Ph. D., Professor of Physics.

TIMOTHY CLORAN, Ph. D., Professor of Romance Languages.

RICHARD HAROLD DEARBORN, M. E., Professor of Electrical Engineering.

EDGAR EZEKIEL DECOU, M. S., Professor of Mathematics.

FRED GOODRICH FRINK, M. S., Professor of Railway Engineering.

JAMES HENRY GILBERT, Ph. D., Assistant Professor of Economics.

WILLIAM L. HAYWARD, Director of Men's Gymnasium.

HERBERT CROMBIE HOWE, B. A., Professor of Modern English Literature.

HEMAN BURR LEONARD, Ph. D., Assistant Professor of Mathematics.

JOSEPH SCHAFER, Ph. D., Professor of History.

FRIEDRICH GEORG G. SCHMIDT, Ph. D., Professor of German.

FREDERICK LAFAYETTE SHINN, Ph. D., Assistant Professor of Chemistry.

ORIN FLETCHER STAFFORD, M. A., Professor of Chemistry.

ALBERT RADDIN SWEETSER, M. A., Professor of Botany.

EDWARD ALLEN THURBER, M. A., Professor of Rhetoric.

FREDERICK GEORGE YOUNG, B. A., Professor of Economics.

JULIA BURGESS, M. A., Instructor in English.

WILLIAM B. KEMP THORNE, Ph. B., Instructor in Mathematics.

CHARLES W. CONVERSE, M. A., Instructor in Electrical Engineering.

HUGO W. KOEHLER, B. A., Instructor in German.
 ELLEN M. PENNELL, Instructor in English.
 MARY A. PERKINS, M. A., Instructor in English.
 CARL A. MCCLAIN, B. S., Instructor in Civil Engineering.
 CHARLES ROY REID, B. S., Instructor in Electrical Engineering.
 PAUL G. BOND, B. A., Assistant in Physics.
 J. ALBERT BAKER, Assistant in Wood Shop.
 IRA STAGGS, Assistant in Machine Shop.

ADMISSION.

For full entrance to the freshman class of the College of Engineering, fifteen units are necessary, of which ten are in required and five in elective subjects. Graduates of high schools who for any reason do not have fifteen units may enter as conditioned freshmen if they have satisfactorily completed at least thirteen units. All conditions must be made up as soon as possible.

The subjects required of all freshmen entering the College of Engineering are as follows:

English	3	units
Algebra	1½	units
Plane and Solid Geometry.....	1½	units
One Foreign Language.....	2	units
History	1	unit
Physics	1	unit
Elective	5	units
Total.....	15	units

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 eight 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 Testing Laboratory is equipped with the necessary machines and appliances for testing the strength of timber, stone, cement, and metals, the largest machine being a 200,000-pound universal testing machine.

COURSES OFFERED.

Courses are offered in Civil Engineering, including Railway and Sanitary Engineering, Electrical Engineering, Hydro-electric Engineering (combining work in Civil and Electrical 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 Geodasy, Mechanics, Highway and Railway Engineering, Hydraulic and Municipal Engineering, and Structural Engineering.

ELECTRICAL ENGINEERING.

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

RAILWAY ENGINEERING.

This course corresponds closely with the Civil Engineering course during the first two years, the difference during that period consisting mainly in the introduction of work as prerequisite for the subsequent railway courses, thus decreasing the number of elective courses. During the junior year the work is arranged as follows: First semester—Analytical Mechanics, Railway Surveying, Topographic Surveying, Economics for Engineers, and elective two hours; second semester—Analytical Mechanics, Strength of Materials, Topographic Surveying, Stresses, Economics, and Maintenance of Way. Senior year, first semester—Structural Design, Masonry, Hydraulics, Railway Operation, Contracts and Specifications; second semester—Reinforced Concrete, Roads and Pavements, Economic Location, Railway Design, and Elective six hours.

SANITARY ENGINEERING.

The course in Sanitary Engineering is the same for the first two years as the course in Civil Engineering. In the junior and senior years the emphasis is placed on the question of water supply, sewerage and drainage systems; lighting, heating, and ventilation of buildings, etc., and includes the following courses: Applied Mechanics, Topographic Surveying, Bacteriology, Geology, Organic Chemistry, Water Analysis, Microscopic Examination of Water, Plain and Reinforced Concrete, Hydraulics, Heating, Plumbing and Ventilation, Steam Boilers, Lighting of Buildings, Contracts and Specifications, Water Supply Systems, Sewerage and Drainage Systems, Sanitary Building Design, Air Analysis, and Methods of Garbage Disposal.

CHEMICAL ENGINEERING.

For description of the course in Chemical Engineering, see outline under Chemical Engineering and Chemistry.

DEPARTMENTS OF INSTRUCTION.

Announcement of Courses for 1912-13.

CIVIL ENGINEERING.

Professor McAlister.

Professor Frink.

Assistant Professor Adams.

Mr. McClain.

Students taking their major in Civil Engineering will find the proper sequence of their courses outlined below:

FRESHMAN YEAR.

First Semester.	Hours or periods per week.
Mathematics 2 (Advanced Algebra, Trigonometry).....	5
Chemistry 1	4
Drawing 1	2
Shopwork 1 (Woodworking)	1
Shopwork 5 (Machine Shop)	1
English 1, 3, 4, or 5.....	3, 2, or 1
Elective (one or two hours, depending on English).	

Second Semester.

Mathematics 2 (Analytical Geometry)	5
Chemistry 1	4
Drawing 1	2
Shopwork 2 (Pattern Making)	1
Shopwork 6 (Machine Shop)	1
English 1, 3, 4, or 5	3, 2, or 1
Elective (one or two hours, depending on English).	

SOPHOMORE YEAR.

First Semester.

Mathematics 4 (Calculus)	5
Surveying 21	3
Drawing 5 (Descriptive Geometry)	2
Physics 2 and 3	4
Elective	1 or 2

Second Semester.

Mathematics 4 (Calculus)	5
Surveying 21	3
Structural Engineering 41 (Graphic Statics).....	2
Physics 2 and 3	4
Elective	1 or 2

JUNIOR YEAR.

First Semester.

Mathematics 17 (Analytical Mechanics).....	3
Surveying 22 (Topographic Surveying)	3
Railway Engineering 81 (Railroad Surveying).....	5
Elective	4 or 5

*Industrial Electricity 12 or *Economics 3.

Second Semester.

Mathematics 17 (Analytical Mechanics)	3
Surveying 22 (Topographic Surveying)	3
Structural Engineering 42 (Strength of Materials).....	4
Structural Engineering 43 (Stresses in Framed Structures)	3
Elective	2 or 3

*Industrial Electricity 12 or *Economics 3.

*Courses marked thus are suggested as electives.

SENIOR YEAR.

First Semester.

Structural Engineering 44 (Masonry)	3
Structural Engineering 46 (Bridge Design).....	3
Hydraulic Engineering 61 (Hydraulics).....	4
Contracts and Specifications	2
Elective	3 or 4

Second Semester.

*Elective	15
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DRAWING AND ARCHITECTURE.

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

Two hours, both semesters.

2. *Lettering.* Extended practice in various styles of lettering commonly used on working drawings. Three or six hours in drafting room. *One hour, both semesters, or two hours, one semester.*

3. *Freehand Drawing.* Outline drawing, in ink and pencil, of architectural ornaments and conventionalized plant forms.

Two hours, first semester.

4. *History of Architecture.* A review of the conditions and motives that have given rise to the different types of architecture.

Three hours, both semesters.

5. *Descriptive Geometry.* Orthographic projections of points, lines and solids; traces of lines, planes, and single-curved sur-

*Advanced courses in Structural Engineering, such as Reinforced Concrete, Advanced Bridge Design, Masonry Arches, or in Hydraulic Engineering, such as Irrigation, Water Supply, or Sewerage and Drainage; or in Railway Engineering; or in Architecture; or in Electrical and Mechanical Engineering; or work in any of the scientific or literary departments of the University, for which the student has the prerequisites.

faces; 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, six hours per week.

Two hours, first semester.

6. *Shades and Shadows.* Practical methods of finding shadows with special reference to architectural problems. Open to those who have had courses 1 and 5.

Two hours, second semester.

7. *Perspective.* Analytical study of the theory and practice of perspective principles. Practical methods of application. Open to those who have had courses 1 and 5.

Two hours, second semester.

8. *Orders of Architecture.* A study of the character and proportions of the five orders of architecture. Open to those who have had courses 1 and 5.

Two hours, both semesters.

9. *Machine Drawing.* Form and proportions of machine details as determined by custom and empirical formulæ, rather than by considerations of theoretical design. Open to those who have had course 1.

Two hours, both semesters.

10. *Details of Construction.* Scale and full-size drawings showing the methods of building construction. Details of windows, doors, exterior and interior finish, etc. Open to those who have had course 1.

Three hours, first semester.

11. *Dwelling Design.* This course is designed to follow course 10 and comprises the drawing of plans and elevations, with a study of the arrangement and architectural effects. Writing of specifications.

Two hours, second semester.

SURVEYING.

21. *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, one hour per week; field and office work, six hours per week. Open to

students who have had Freshman Mathematics and course 1. Required of all Engineering students. Laboratory fee \$1.00 for course.

Three hours, both semesters.

22. *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 21 and Calculus. Required of students in Civil and Mining Engineering. Laboratory fee \$2.50 for course.

Three hours, both semesters.

23. *Astronomical Practice.* More extended practice than can be given in course 22, in determining time, latitude, longitude, and azimuth. Additional methods are also developed. Three hours field practice. Open to those who have had course 22.

One hour, either or both semesters.

STRUCTURAL ENGINEERING.

41. *Graphic Statics.* Graphic methods for 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 1 and 5. Prerequisite for all Engineering students.

Two hours, second semester.

42. *Strength of Materials.* (a) Elements of the mathematical theory of elasticity, with applications to beams, columns, shafts, etc. Lectures and recitations, three hours per week.

(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. Laboratory, three hours per week. Open to students who have had Calculus, Analytical Mechanics, and shopwork. Required of all Engineering students. Laboratory fee \$2.50.

Four hours, second semester.

43. *Stresses in Framed Structures.* Determination by graphic and analytical methods of stresses in trusses and other framed structures, including structural details. Drafting and computations, nine hours per week. Open to students who have had Calculus and course 41, and who have had or are taking Analytical Mechanics. Required of Civil Engineering students.

Three hours, second semester.

44. *Masonry.* Materials, foundations, piers, and abutments, retaining walls, culverts, and dams. Lectures, computations, and drafting, and laboratory work in testing stone, brick, cement, etc. Open to students who have had Calculus, Analytical Mechanics, Elementary Chemistry, and courses 1, 5, and 42. Required of Civil Engineering students. Laboratory fee \$2.50.

Three hours, first semester.

45. *Reinforced Concrete.* Theory, computation, and design of reinforced concrete beams, columns, slabs, arches, retaining walls, etc. Open to students who have had course 44.

Three hours, second semester.

46. *Structural Design.* Designs, drawings, bills of materials, and estimates of cost of girders and trusses of wood and steel. Drafting and computations, nine hours per week. Open to students who have had courses 42 and 43 and shopwork. Required of Civil Engineering students.

Three hours, first semester.

47. *Advanced Bridge Design.* Courses 43 and 46 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, fifteen hours per week. Open to students who have had courses 43 and 46.

Five hours, second semester.

48. *Masonry Arches.* Computation of stresses, designs, and drawings for arches of stone, brick or concrete. Drafting room, six hours per week. Open to students who have had courses 42 and 44.

Two hours, second semester.

HYDRAULIC AND MUNICIPAL ENGINEERING.

61. *Hydraulics.* Hydrostatic pressure in pipes, tanks, reservoirs, etc.; fluid motion; dynamic pressure, theoretical and empir-

ical 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 waterwheels and turbines. Open to students who have had Calculus, Analytical Mechanics, and course 21. Required of Civil Engineering students.

62. *Hydraulic Motors.* The mathematical theory and design of modern types of reaction turbines and impulse wheels, with a brief study of centrifugal pumps. Must be preceded by course 61.

Three hours, second semester.

63. *Water Supply Systems.* 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, two hours per week; drafting and computations, nine hours per week. Open to students who have had course 61.

Five hours, second semester.

64. *Elements of Water Supply Design.* Course 63 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 six hours per week. Open to students who have had course 61.

Two hours, second semester.

65. *Sewerage and Drainage Systems.* Detailed designs of systems; disposal works and drains; separate and combined systems; rainfall 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, two hours per week; computation and drafting, nine hours per week. Open to students who have had course 61.

Five hours, second semester.

66. *Elements of Sewer Design.* Course 65 abbreviated. Lectures, drafting and computations; in all, six hours per week. Open to students who have course 61.

Two hours, second semester.

67. *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 sec-

tions 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, three hours; field work and drafting, six hours per week. Open to students who have had courses 61, 22, 42, and 44.

Five hours, second semester.

RAILWAY ENGINEERING.

81. *Railway Surveying.* Reconnaissance, preliminary survey, location survey; simple curves; compound curves, transition curves; vertical curves; earthwork; switches and crossings. Recitations, two hours; field and office work, nine hours per week. Open to students who have had course 21. Required of Civil Engineering and Railway Engineering students. *Five hours, first semester.*

82. *Maintenance of Way.* Construction and maintenance of track details and minor structures. Organization and methods.

Two hours, second semester.

83. *Railway Operation.* Yards and terminals, signals, working and wrecking trains. Relation between operating and engineering departments.

Four hours, first semester.

84. *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. Open to seniors or graduates who have had course 81.

Two hours, second semester.

85. *Railway Design.* Examination and criticism of existing railways. Inspection trip during Easter vacation. This course is preceded or accompanied by course 84, and is taken in the senior year.

Three hours, second semester.

86. *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 of senior standing.

Two hours, second semester.

87. *Contracts and Specifications.* The law relating to contracts. Forms and details of engineering specifications.

Two hours, first semester.

SANITARY ENGINEERING.

For courses in Sanitary Engineering, see Announcement of Courses, College of Engineering.

LABORATORY FEES.

21. Elementary Surveying	\$1.00
22. Topographic Surveying	2.50
42. Testing Laboratory	2.50
44. Masonry Laboratory	2.50

Key deposit for Mechanical Drawing, \$1.00, refunded at the end of the course on the return of the key.

ELECTRICAL ENGINEERING.

Professor Dearborn.

Assistant Professor Converse.

Mr. Reid.

Mr. Staggs.

Mr. Baker.

The department of Electrical Engineering offers: (1) A four year course leading to the degree of B. S. in Electrical Engineering, as outlined. (2) A five year course in Hydro-electric Engineering, the extra year being largely devoted to consideration of hydraulics, hydro-electric plants, water storage, concrete construction, and topographic surveying. (3) A five year course leading to the degree of E. E., designed for the training of the professional electrical engineer, the additional work being partly in cultural and partly in advanced engineering work.

All of the above courses are based on the completion of four years of high school work and are planned with the object of meeting the needs of the State of Oregon and the Pacific Northwest, especial attention being given to the development of elec-

tricity from water power, with supplemental courses in steam and gas engines as auxiliary sources of power.

It is the object of the department to combine a reasonable amount of specialization in the last years of the course, with a thorough grounding in the fundamentals during the earlier years. In carrying out this plan the department endeavors to make the mathematic and scientific courses strong in the earlier years and to supplement them by courses in drawing and shop practice. These are required of all graduates and usually take the form of investigation of engineering problems, design and construction of apparatus, power plant tests, etc.

The following courses in Electrical Engineering are offered.

In connection with these, the student takes courses as follows:

Advanced Algebra, Trigonometry, Analytical Geometry, Calculus, Mathematics; Course 1 in Chemistry, General Physics, Electricity and Magnetism, and Electrical Testing in Physics; Mechanical Drawing, Descriptive Geometry, Surveying, Machine Design, 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.

An outline of the courses in Electrical Engineering is given below to indicate a suitable sequence:

FRESHMAN YEAR.

First Semester.

Mathematics 2	5 hours
Physics for Engineers 2	3 hours
Physical Measurements 3	1 hour
English Composition 1	3 hours
Mechanical Drawing, C. E. 1.....	2 hours
Wood Shop 1	1 hour
Forge Work 3	1 hour

University of Oregon

Second Semester.

Mathematics 2	5 hours
Physics for Engineers 2	3 hours
Physical Measurements 3	1 hour
Mechanical Drawing, C. E. 1.....	2 hours
Pattern Making 2	1 hour
Forge Work 3	1 hour

SOPHOMORE YEAR.

First Semester.

Mathematics 4	5 hours
Chemistry 1	4 hours
Electrical Engineering 11	2 hours
Physics 12	2 hours
Descriptive Geometry, C. E. 5	2 hours
Machine Shop 5	1 hour

Second Semester.

Mathematics 4	5 hours
Chemistry 1	4 hours
Electrical Engineering 11	2 hours
Physics 13	2 hours
Machine Drawing, C. E. 9	2 hours
Machine Shop 6	1 hour

JUNIOR YEAR.

First Semester.

Direct Current Machinery 14.....	4 hours
Steam Engines and Boilers 32.....	2 hours
Mechanics for Electrical Engineers 26....	4 hours
Elementary Surveying 21.....	3 hours
Direct Current Laboratory 15	1 hour
Steam Laboratory 33	1 hour

Second Semester.

Alternating Current Machinery 16.....	4 hours
Steam Engines and Boilers 32	2 hours
Mechanics for Electrical Engineers 26....	4 hours
Elementary Surveying, C. E. 21	3 hours
Alternating Current Laboratory 17	1 hour
Mechanical Laboratory 33	1 hour

SENIOR YEAR.

First Semester.

Electrical Engineering 18	4 hours
Alternating Current Motors 25.....	2 hours
Electric Lighting 21	2 hours
Internal Combustion Motors 38	2 hours
Alternating Current Laboratory 19.....	1 hour
Contracts and Specifications 81.....	2 hours
Steam Power Plants 36.....	1 hour
Electrical Problems 24	1 hour

Second Semester.

Electrical Engineering 18	4 hours
Electric Railways 16	2 hours
Telegraphy and Telephony 22	2 hours
Internal Combustion Motors 38	1 hour
Gas Engine Laboratory 39	1 hour
Thesis 28	2 to 4 hours
Alternating Current Laboratory 19.....	1 hour

1. *Woodworking.* Use and care of tools. Mitering, wood-turning. Three hours a week in the shops.

One hour, one semester.

2. *Pattern Making.* Selection of woods. Core boxes; draft, shrinkage, etc. Three hours a week in the shops.

One hour, one semester.

3. *Forge Work.* Forging, welding, tool-dressing, tempering, annealing. Three hours a week in the shops.

One hour, two semesters.

4. *Foundry Work.* (Not given in 1912 and 1913.) Moulding, core-making. Management of cupola and crucible furnace. Three hours a week in the shops.

One hour, two semesters.

5. *Machine Shop.* Bench work, chipping, filing, etc. Three hours a week in the shops.

One hour, one semester.

6. *Machine Shop.* Exercises on lathes, shaper, planer, milling machine, drill press, etc. Three hours a week in the shops.

One hour, one semester.

7. *Machine shop.* Construction and erection apparatus and machines. Three hours a week in the shops. Prerequisites, courses 5 and 6.

One hour, both semesters.

8. *Shop Lectures.* Given at various times in connection with the shop work.

10. *Electricity.* A brief general course for non-engineering students, designed to cover the simpler applications of electricity to lighting, heating, and power. Open to all students.

One hour, one semester.

11. *Electrical Engineering.* An introductory course for Electrical Engineers designed to lay the foundation for further analytical work.

Two hours, both semesters.

12. *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 of junior standing.

Two hours, second semester.

13. *Electrical Laboratory.* Industrial. A brief course given in connection with course 12. Three hours in the laboratory.

One hour, second semester.

14. *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. Prerequisites, course 4 Mathematics, and courses 2 and 3 Physics.

Four hours, first semester.

15. *Electrical Laboratory.* Direct current. A laboratory course for the experimental study of direct current dynamos and motors; their operation, characteristic curves, and efficiencies. Taken in connection with course 14. Three hours in the laboratory.

One hour, first semester.

16. *Alternating Current Machinery.* The theory of generation of single phase and polyphase alternating currents. Graphic problems, measurement of power, theory of transformers, rotary converters, synchronous and induction motors. Prerequisite, course 14.

Four hours, second semester.

17. *Electrical Laboratory.* Alternating current. Laboratory tests of single and polyphase generators, induction and synchronous motors, transformers, frequency changers, etc. Taken in connection with course 16. Three hours in laboratory.

One hour, second semester.

18. *Electrical Engineering.* Power plants, transmission lines, substations and distribution systems. Prerequisites, courses 14 and 16.

Four hours, both semesters.

19. *Electrical Laboratory.* Advanced laboratory work, largely on alternating current machinery. Prerequisite, courses 15 and 17. Three hours in laboratory.

One hour, both semesters.

20. *Street Railways.* A course in street railway design, construction, operation, and economics. Prerequisite, courses 14 and 16.

Two hours, second semester.

21. *Electric Lighting.* A study of the various electric illuminants and their adaptations to exterior and interior lighting. Open to students of junior standing.

Two hours, first semester.

22. *Telegraphy and Telephony.* Fundamental principles of electric signalling, with illustrations of modern commercial practice. Prerequisite, courses 11, 12 or 14.

Two hours, second semester.

24. *Electrical Problems.* Problems in Direct and Alternating Currents.

One hour, first semester.

25. *Alternating Current Motors.* A complete discussion of the various types of alternating current motors. Prerequisite, course 14.

Two hours, first semester.

26. *Mechanics for Electrical Engineers...* A course including the principles of Graphic Statics, Mechanics, Materials and the Elements of Hydraulics. Prerequisites, Mathematics 4, and Physics 2 and 3. *Four hours, both semesters.*

28. *Thesis.* Preliminary reading and investigation is done during first semester. Subjects must be chosen and approved before the first Monday in November. *Two hours, second semester.*

29. *Inspection Trip.* A trip to the principal power plants and industrial centers of the Northwest, taken during Easter vacation every other year. Required.

30. *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 of junior standing. *Two hours, first semester.*

31. *Mechanical Laboratory.* Prime movers. A brief course given in connection with course 30. Two hours in laboratory. *One hour, first semester.*

32. *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. Fuel determination. Discussion of condensers, mechanical stokers, and chimneys. Prerequisite, course 4 in Mathematics, and courses 2 and 3 in Physics. *Two hours, both semesters.*

33. *Steam Laboratory.* Experiments chiefly in Steam Engineering. Engine, boiler, and pump tests. Indicators; dynamometers; fuel calorimetry; valve setting; flue gas analysis. Three hours in laboratory. Taken in connection with course 31. *One hour, both semesters.*

34. *Steam Turbines.* The theory, construction, operation and comparison of best types. Discussion of fields occupied by steam turbine and engine. Prerequisites, Mathematics 4, Physics 2 and 3, and first semester course 32.

36. *Steam Power Plants.* Including selection and installation of equipment. *One hour, first semester.*

38. *Internal Combustion Motors.* Their theory, construction

and operation will be considered in detail. Prerequisites, Mathematics 4, and Physics 2 and 3.

Two hours, first semester.

One hour, second semester.

39. *Gas Engine Laboratory.* Experiments on gas and gasoline engines. Taken in connection with course 38. Three hours in the laboratory.

One hour, second semester.

SHOP AND LABORATORY FEES.

Three dollars a semester for each course in shops and laboratories.

HYDRO-ELECTRICAL ENGINEERING.

A five-year course in Hydro-Electrical Engineering is offered in connection with the department of Civil Engineering. The first three years are identical with the regular course in Electrical Engineering. The following schedule is offered for the fourth and fifth years:

FOURTH YEAR.

First Semester.

Hydraulics, C. E. 61	4 hours
Topographic Surveying, C. E. 22.....	3 hours
Alternating Current Motors, 25	2 hours
Alternating Current Laboratory, 19	1 hour
Internal Combustion Motors, 38	3 hours
Elective.....	3 hours

Second Semester.

Strength of Materials, C. E. 42.....	4 hours
Topographic Surveying, C. E. 22.....	3 hours
Telegraphy and Telephony, 22	2 hours
Alternating Current Laboratory 19.....	1 hour
Internal Combustion Motors, 38.....	2 hours
Gas Engine Laboratory 39	1 hour
Elective.....	3 hours

FIFTH YEAR.

First Semester.

Electrical Engineering, 18	4 hours
Masonry, 44	3 hours
Contracts and Specifications, C. E. 81.....	2 hours
Economics, 1	3 hours
Elective.....	3 hours

Second Semester.

Electrical Engineering	4 hours.
Reinforced Concrete, C. E. 45	3 hours
Economics 1	3 hours
Thesis	4 hours
Elective	4 hours

CHEMICAL ENGINEERING.

Professor Stafford.

Assistant Professor Shinn.

With the refined industrial development of late years and its accompanying closer competitive conditions there has arisen the necessity for a scientific control of industrial processes in order that greater economies than heretofore have been attainable may be secured. As a consequence, many industries which since time immemorial have been conducted upon a rule-of-thumb basis are requiring men with scientific training for help in their problems.

The man who can be of most help under such circumstances must be familiar not only with the scientific aspects of the work in question, but must have the ability to see the connection between the process and the material equipment necessary for carrying it on to the best advantage. In the electrical industry, for example, the man who secures results must have a happy combination of theoretical physics, upon the one hand, which will enable him to picture vividly in his mind all the various manifestations of lines

of force, etc., and of mechanical constructive ability, upon the other hand, which will enable him to build a machine capable of utilizing to the utmost possible practical degree the effects which these lines of force are able to produce.

The Chemical Engineer is the outcome of the effort to combine in a single person the functions of chemist and constructing engineer, just as the Electrical Engineer is the combination of specialized physicist and constructing engineer. He should be able to devise and construct machinery for carrying out any process involving chemical action. If he has at the same time administrative ability he is the one best fitted for the superintendency of industrial plants.

The variety of such plants is large, and is continually increasing. It is impossible to enumerate all of the lines requiring chemical control, but below are representative ones, any of which will admit of almost unlimited specialization.

- Acids.
- Alcohol.
- Alkalis.
- Ammonia.
- Bleaching.
- Chemicals.
- Clay Products.
- Coal Tar and its Derivatives.
- Coke.
- Copper.
- Electric Furnace products.
- Electrometallurgy.
- Explosives.
- Fertilizers.
- Foods.
- Glass.
- Glycerine.
- Illuminating and Heating Gas.
- Iron and Steel.
- Lead.
- Leather.

Lime, Cements, Plasters.
Oils, Varnishes, etc.
Paper.
Petroleum and its Derivatives.
Pigments and Paints.
Sewage Disposal.
Soap.
Soda.
Starch.
Sugar.
Water Purification.
Wood Distillation.
Zinc and other Metals.

The purpose of the course in Chemical Engineering as given at any good school is to impart the necessary academic training which shall then serve as the basis of future practical work. More or less apparatus is at hand, to be sure, which is the same as that used in practical work, and the endeavor is to increase its amount. In the four years available for school work, however, there is scarcely time for the absolutely essential class-room work, so that time for practice upon a technical scale to any very great extent is out of the question, however good the equipment for such work may be. It is the concensus of opinion among men highest in the industrial affairs of this country that the four years in school should be given over almost exclusively to the academic side of the training of the Engineer, and that his real practical training should be secured in the industrial plant itself.

The equipment of the Chemical Laboratories for the regular work in Chemistry is unusually fine. Three well-ventilated and well lighted laboratories are available for student use, besides a commodious lecture room, weighing rooms, store room, etc. All apparatus is chosen with a view to the exemplification of the very latest developments in the subject, and the amount supplied to each student is limited only by his own desires in the matter. Numerous laboratory conveniences, such as gas, water, steam, compressed air, vacuum, furnaces, balances, electricity, hydrogen sulphide mains,

electrically exhausted fume closets, etc., are at the disposal of every one.

In the fourth year of the Chemical Engineering course special courses in Chemistry are offered bearing more directly upon industrial problems. Much of the equipment for these courses is identical with that used upon a technical scale, including bomb calorimeters, apparatus for electro chemical measurements and technical processes, the refining of chemicals, etc.

The equipment in the purely Engineering subjects is described elsewhere. It includes testing laboratories, shops, drafting rooms, and so on, all well supplied with apparatus, which in many instances is to be equaled only in a few of the very largest schools of the country.

THE COURSE OF STUDY.

The subjects pursued in the course in Chemical Engineering are grouped around the two main lines which the course contemplates,—Chemistry and Engineering.

In Chemistry the work starts with a thorough general survey of the subject as given in Course 1; continues with a year of analytical work, qualitative and quantitative; and then in succession follow Organic Chemistry, Physical Chemistry, Advanced Analysis, Electro-Chemistry and finally the technical courses.

The beginning of the Engineering work is made in drafting and shop work, which are followed as soon as sufficient mathematical training has been acquired, by the higher technical courses.

As preparatory for, or adjunctive to these main lines of study are Mathematics and Physics, and at the same time there is useful variation from the purely engineering or chemical work in a course or two in Languages and Economics.

Two years in a foreign language, German or French preferred, must be offered to fulfill the language entrance requirement for the course in Chemical Engineering.

The following is the course of study:

FRESHMAN YEAR.

First Semester.

Mathematics 2	5 hours
Chemistry 1	4 hours
German 10, or French 5	2 hours
Physics 2	3 hours
Physics 3	1 hour

Second Semester.

Mathematics 2	5 hours
Chemistry 1	4 hours
English Composition 1	3 hours
Physics 2	3 hours
Physics 3	1 hour

SOPHOMORE YEAR.

First Semester.

Drawing 1	2 hours
Chemistry 3	4 hours
Mathematics 4	5 hours
Shop 1	1 hour
Economics 6	3 hours

Second Semester.

Drawing 1	2 hours
Chemistry 4	4 hours
Mathematics 4	5 hours
Shop 1	1 hour
To be arranged	3 or 4 hours

JUNIOR YEAR.

First Semester.

Organic Chemistry 5	4 hours
Physical Chemistry 16	4 hours
Analytical Mechanics 7	3 hours
Descriptive Geometry 5	2 hours
Shop 5	1 hour
Electrical Engineering 11	2 hours

Second Semester.

Organic Chemistry 5	4 hours
Inorganic Chemistry 10	4 hours
Analytical Mechanics 17	3 hours
Graphic Statics 41	2 hours
Shop 5	1 hour
Electrical Engineering 11	2 hours

SENIOR YEAR.

First Semester.

Analytical Chemistry 12	3 hours
Industrial Chemistry 14	3 hours
Metallurgy	3 hours
Chemical Engineering 19	2 hours
Machine Drawing 9	2 hours
Sanitary Chemistry 21	2 hours
Thesis.	

Second Semester.

Industrial Chemistry 14	3 hours
Electro-Chemistry 18	2 hours
Business Law	2 hours
Machine Drawing 9	2 hours
Strength of Materials 42	4 hours
Thesis.	

SCHOOL OF EDUCATION.

FACULTY.

- P. L. CAMPBELL, B. A., President of the University.
FRANKLIN L. BARKER, E. M., Professor of Geography.
CHARLES J. C. BENNETT, Ph. D., Dean of School of Education and
Professor of Education and Psychology.
JOHN FREEMAN BOVARD, M. S., Professor of Zoology.
WILLIAM PINGRY BOYNTON, Ph. D., Professor of Physics.
ROBERT CARLTON CLARK, Ph. D., Professor of History.
ARTHUR JAMES COLLIER, M. A., Professor of Geology.
EDMUND S. CONKLIN, Ph. D., Assistant Professor of Psychology.
EDGAR EZEKIEL DECOU, M. S., Professor of Mathematics.
FREDERIC STANLEY DUNN, M. A., Professor of Latin.
JAMES HENRY GILBERT, Ph. D., Assistant Professor of Economics.
MONTANA HASTINGS, B. A., Assistant Professor of Education.
HERBERT CROMBIE HOWE, B. A., Professor of Modern English
Literature.
HEMAN BURR LEONARD, Ph. D., Assistant Professor of Mathematics.
ARCHIBALD FERGUSON REDDIE, B. A., Professor of Public Speaking.
JOSEPH SCHAFER, Ph. D., Professor of History.
FRIEDRICH GEORG G. SCHMIDT, Ph. D., Professor of German.
FREDERICK LAFAYETTE SHINN, Ph. D., Assistant Professor of
Chemistry.
ORIN FLETCHER STAFFORD, B. A., Professor of Chemistry.
BERTHA STUART, M. D., Director of Women's Gymnasium.
ALBERT RADDIN SWEETSER, M. A., Professor of Botany.
EDWARD ALLEN THURBER, M. A., Professor of Rhetoric and Amer-
ican Literature.
FREDERICK GEORGE YOUNG, B. A., Professor of Economics and
Sociology.

ORGANIZATION.

The School of Education of the University of Oregon was authorized by the Board of Regents in February, 1910. The general purpose of the school is to organize and correlate all the forces of the University which have for their ultimate aim the growth of educational efficiency in the State of Oregon. This work is done through the effective grouping of courses for teachers in the regular college curriculum, through the Summer School, the Correspondence School, and through investigation of questions of importance to the State and publication of results in bulletin form.

COURSES FOR TEACHERS.

The University, by means of the School of Education, is prepared to train teachers for the following classes of positions:

1. High school subjects and departments. For courses see following pages.
2. Superintendencies, principalships, and administrative positions. For courses see following pages.
3. Special teachers of music and physical training. For courses see following pages.

SUMMER SCHOOL.

Beginning in the latter part of June of each year, the University conducts a summer school of six weeks in length, the chief aim of which is to furnish the superintendents, principals, and high school teachers of the State the courses needful in their work. Special lecturers of eminence are secured to keep the work fully abreast of the times. Bulletins fully describing the work of the summer school will be mailed to all those who apply.

CORRESPONDENCE COURSES.

For the last three years the University has operated a correspondence school which enables energetic principals and teachers at a distance from the University to carry on studies under the direct supervision of the University departments. Courses of college

grade carried on by correspondence receive college credit, when satisfactorily completed. The University will offer during the academic year 1912-13 courses by correspondence of a college grade in the following subjects: Mathematics, English literature, English composition, history, economics and sociology, education, psychology, and mechanical drawing. A circular containing the details of this division will be sent on application to the Correspondence-Study Department.

BULLETINS ON EDUCATIONAL SUBJECTS.

One of the important functions of the School of Education is the publication of studies on educational conditions and problems. In the last five years, such studies have been made and published on normal school systems in the United States, high school systems in the United States, the county high school fund plan, county normal schools in other states, statistical study of Oregon high schools, and a select bibliography of nature study. These bulletins will be sent from the University to those interested in the subjects upon application.

ADMISSION TO SCHOOL OF EDUCATION.

The requirements for admission to the School of Education are the same as those for admission to the College of Literature, Science, and the Arts, viz., fifteen units, representing completion of a four years' high school course. Persons more than twenty years of age and properly qualified may enter the University as special students without complying with the above requirement, but no such student may be a candidate for a degree or University teacher's certificate until all entrance deficiencies are made up.

GRADUATION.

The degree Bachelor of Arts is conferred upon students of the School of Education who have secured 120 hours of college credit, exclusive of eight semester hours required in physical training and including the work required by the major professor.

CERTIFICATES ON GRADUATION FROM UNIVERSITY.

Certificates shall be issued to graduates from standard colleges or universities who have completed one hundred and twenty (120) semester hours, including fifteen (15) semester hours in education as follows:

1. One-year State certificates shall be issued without examination, upon application, to such graduates of standard colleges and universities, authorizing them to teach only in the high schools of this State.

2. The holder of a one-year State certificate issued in accordance with the provisions of this section shall, after six months' successful teaching experience in this State and upon the recommendation of the county superintendent of the county in which the applicant last taught, receive, without examination, a five-year State certificate authorizing him to teach only in the high schools of this State.

3. The holder of a five-year State certificate issued in accordance with the provisions of this section shall, after thirty months' successful teaching experience in this State and upon the recommendation of the county superintendent of the county in which the applicant last taught, receive, without examination, a State life certificate authorizing him to teach only in the high schools of this State.

4. The holder of a one-year State certificate, or a five-year State certificate, or a life State certificate, secured in accordance with the provisions of this section is hereby authorized to act as a city superintendent of schools of any city.

Fees are as follows, payable to the State Superintendent of Public Instruction:

One-Year certificate	\$2.00
Five-year certificate (after six months' teaching).....	4.00

TEACHERS' EMPLOYMENT BUREAU.

The School of Education maintains a bureau for the registration of academic records of Oregon alumni and recommends candidates for vacancies. In recent years the bureau has had many positions

to fill for which suitable candidates could not be found. This is particularly true of positions calling for men. The bureau aims to assist alumni of the University of Oregon only, and charges no fee for its services. All principals or school boards desiring teachers are requested to correspond with Dr. Joseph Schafer, chairman of the University employment bureau.

In the administration of the teachers' employment bureau the following principles of policy will be kept in mind:

1. The applicant's record as a student in the University will be given great weight and no graduate will be recommended whose scholarship record is sufficiently weak to be distinctly below the average of the students of the University.

2. An applicant whose course in the University shows evidence of coherent grouping about certain subjects will be in much better position to teach successfully than one whose record shows a wide scattering among diverse courses with no apparent unity of aim.

3. Students without experience expecting to teach should aim to do the observation and practice work provided by the University. Students who succeed in this work can be recommended much more strongly than those absolutely without experience. Students who fail will not be recommended by the bureau.

EQUIPMENT.

The equipment available for students in the School of Education consists of the following:

1. Collection of late eighteenth and early nineteenth century text-books, 100 volumes.

2. Collection of contemporary texts, elementary and high school, 800 volumes.

3. Collection of state, city school reports, college, and other catalogues, 1,200 volumes.

4. Collection of sources of educational history 1815-1850, 200 volumes.

A special club room has been provided where the collections and the contemporary literature will be at the service of the students.

REQUIRED COURSES BY DEPARTMENTS, FOR HIGH SCHOOL TEACHERS.

The following list of the courses of study necessary to fully equip teachers in the different high school subjects represents the irreducible minimum which the department in question considers necessary to insure efficient teaching. Under ordinary conditions, no student will be recommended for a position in any fully developed high school who has not carried successfully in his college course all the work outlined. Exceptions may be made of small, newly developed high schools where the candidate must of necessity teach a large variety of subjects. In schools of this class where the faculty is limited to three teachers or less, students will not be recommended unless they have taken successfully at least twelve semester hours in the subject to be taught above the work done in a high school. In foreign languages students to secure recommendations must have taken at least four years' work of which two years must have been completed in a college or university.

It is quite feasible, however, for students, during the four-year course, to fit themselves for teaching more than one subject. While the demand for teachers in the different subjects fluctuates from year to year, there are certain strong tendencies evident in all the western universities, one of which is toward an oversupply of teachers in English and History, and a scarcity of teachers in Physics and Mathematics. Some suggested combinations are the following:

Latin-German-English.

Mathematics-Physiology and Botany-Geology (physical geography).

German-Latin-History.

BOTANY.

Elementary Botany 1 and 2, four hours, both semesters, freshman or sophomore year.

Structural Botany 3 and 4, three hours, both semesters, sophomore or junior year.

General Biology 9, two hours, both semesters, junior or senior year.

CHEMISTRY.

General Chemistry 1, four hours, both semesters, freshman year.

Analytical Chemistry 3, four hours, both semesters, sophomore year.

Organic Chemistry 5, three hours, both semesters, junior year.

Teaching of Chemistry, one hour, both semesters, senior year.

ENGLISH.

English Composition 1, Prof. Thurber, three hours, both semesters, freshman year.

Outlines of English Literature 1, three hours, both semesters, Prof. Howe, freshman year.

Rhetoric 2, Prof. Thurber, three hours, both semesters, sophomore year.

Additional course in Modern English Literature, Prof. Howe, three hours, both semesters, sophomore or junior year.

Course in methods of teaching English, Professors Thurber and Howe, senior year.

GEOLOGY.

Elementary Geology, three hours, both semesters, freshman or sophomore year.

Identification of Minerals, two hours, both semesters, sophomore or junior year.

Methods of teaching Geology and Physical Geography, one hour, second semester, senior year.

GERMAN.

Elementary German, five hours, both semesters, freshman year.

Advanced German, four hours, both semesters, sophomore year.

German Classical Drama, three hours, both semesters, junior or senior year.

German Fiction and Contemporary Literature, three hours, both semesters; or

The Nineteenth Century Novel, three hours, both semesters, junior or senior year.

The Teaching of German, two hours, one semester, senior year.

HISTORY.

History of England, Prof. Clark, three hours, both semesters, freshman year.

Greek and Roman History, Prof. Clark, three hours, both semesters, sophomore year.

Early American History, Prof. Schafer, three hours, both semesters, sophomore year.

Medieval History, or Modern History, Prof. Clark, three hours, both semesters, junior year.

Later American History, Prof. Schafer, three hours, both semesters, junior year.

Historiography, Prof. Schafer, two hours, both semesters, senior year.

Methods of Teaching History, Professors Schafer and Clark, senior year.

LATIN.

A minimum of six years' preparation and as much more as can be obtained in the ordinary college course are requisite for teaching Latin. This would, of course, include the usual four years of high school or academy Latin, covering the uniform reading in Cæsar, Cicero, and Vergil, with supplementary work in Ovid and Sallust and composition. Of these first four years, the University offers the latter two, *i. e.*, the courses in Cicero and Vergil. Four years more are recommended, and, if not four, at least two. The work in these four years is so arranged that a wide range of reading is offered, the instructor reserving the right to vary the program from year to year.

Fifth Year—Cicero's *de Senectute*, Vergil's *Eclogues*, a play of Plautus, Horace's *Odes*, Sallust's *Jugurtha*, selections from Catullus and Tibullus.

Sixth Year—Horace's *Satires* and *Epistles*, a book of Livy, Ovid's *Tristia*, a play of Terence, selections from Pliny and Martial.

Seventh Year—Roman life from Cicero's Letters and Orations, Roman History from Tacitus and Livy.

Eighth Year—Roman literary criticism from Quintilian and other authors, Roman philosophy from Lucretius and Cicero.

MATHEMATICS.

Advanced Algebra, Trigonometry, Analytical Geometry, five hours, both semesters, freshman year.

Differential and Integral Calculus, three hours, both semesters, sophomore year.

Differential Equations, two hours, both semesters, junior or senior year.

Determinants and Theory of Equations, three hours, one semester, junior or senior year.

History and Teaching of Mathematics, one hour, both semesters, senior year.

PHYSIOLOGY.

Invertebrate Zoology, three hours, both semesters, freshman or sophomore year.

Elementary Physiology, two hours, first semester.

Nature Study, three hours, second semester.

PHYSICS.

For teachers of Physics in large high schools a considerable election of fundamental courses in Mathematics and Chemistry.

(a) Courses general and fundamental.

General Physics. A review of the fundamentals of the subject, co-ordinating its various parts as a basis for advanced courses, three hours, both semesters.

Physical Measurements. A general laboratory course accompanying Course 1, one hour, both semesters.

History of Physics, one hour, first semester.

Teaching Physics, one hour, first semester.

(b) Advanced or specialized courses.

Electrical Measurements. Especially intended for electrical engineers, but valuable to teachers both for the new ground covered

and the introduction to precise methods. Two hours, both semesters.

Thermodynamics. The theory of heat considered simply as a form of energy. Three hours, first semester.

Molecular Physics. A more detailed study of the relation between heat and energy, and of the constitution of matter. Three hours, second semester.

Theory of Light, three hours, either semester.

Advanced Laboratory, from one to four semester hours.

For a rigorous course, work should be selected from the above advanced courses making a total of not less than 20 semester hours in the department.

For a more descriptive course, some of the lecture courses, 4, 5, 6, 7, may be included in the electives, with partial credit only.

COURSE IN EDUCATION FOR HIGH SCHOOL TEACHERS.

The courses in Education for high school teachers fall into the following groups:

1. Courses in methodology offered by the different departments. Credit in Education as part of the fifteen semester hours required for a teacher's certificate may be gained, to the extent of four semester hours, by registering for any of the following courses:

Botany 12, one hour a week, one semester.

English 62, one hour a week, both semesters.

German 11, two hours a week, one semester.

Geology 11, one hour a week, one semester.

History.

Latin 31-32, two hours a week, both semesters.

Mathematics 7-8, one hour a week, both semesters.

Physics 8-9, one hour a week, both semesters.

2. Courses treating of the principles, history, and fundamental basis of education, as follows:

Education 1 and 2, History of Education, three hours each semester.

Education 3 and 4, Psychology and Education, three hours each semester.

3. Courses dealing with the practical side of high school work other than the methodology of particular subjects:

Education 10, Principles of Secondary Education, Observation Work and School Management as applied to Secondary Schools, three hours, one semester.

Education 12, Practice Teaching, five hours, one semester.

Students expecting to teach in the high school should ordinarily take two or three courses in group 1, at least one year course in group 2, and both courses in group 3.

COURSE FOR SUPERINTENDENTS, PRINCIPALS, ETC.

Freshman Year—English Composition, three hours.

Sophomore Year—*Psychology, three hours. *Economics, three hours. Early American History, three hours.

Junior Year—History of Education, three hours. Educational Psychology and Child Study, three hours. Later American History, three hours.

Senior Year—*School Administration—Organization of Curricula, three hours.. Principles of Secondary Education; Practice Teaching, four or five hours. Sociology, two hours. Thesis, one hour.

A student may combine the above course with one or possibly two of the high school groups and thus prepare himself for some specific department in a high school, besides securing a general training in pedagogy which will be essential to him later on in his career.

SPECIAL COURSE FOR MUSIC TEACHERS.

It is within a comparatively short period that the necessity of special training for teachers of music has been realized, though schools affording such opportunities to teachers in other subjects have long been acknowledged as necessary. In recognition of this need, an opportunity will be given teachers to get such training in the School of Music.

The purpose of a normal department is to give the student of music a mental, musical, and technical education that will equip

*The courses starred may be taken by correspondence.

him for teaching, and which will be at the same time invaluable to musicians who wish to have more than a superficial knowledge of their art.

First Year—Music (piano, voice, or violin), two hours. German (Italian for voice), five hours. Literature, three hours. English, three hours. Elocution, one hour. Personal Hygiene, one hour. Physical Training.

Second Year—Music (piano, voice, or violin), two hours. Harmony (preparatory), one hour. German, four hours. English, three hours. Literature, three hours. Elocution, one hour. Physical Training.

Third Year—Music (piano, voice, or violin), two hours. Sight Singing, one hour. Harmony, one hour. History of Music, one hour. Psychology, three hours. Physics, one hour. French, five hours. Teaching Music, one hour. Physical Training.

Fourth—Music (piano, voice, or violin), two hours. Sight Singing, one hour. Education 3 and 4, three hours. Harmony, one hour. History of Music, one hour. Elocution, one hour. Teaching music, five hours. Physical Training.

SPECIAL COURSE FOR TEACHERS OF GYMNASTICS.

Freshman Year—French or German, five hours. English Composition, three hours. Botany, four hours. Public Speaking, one hour. Personal Hygiene.

Sophomore Year—Physics (1), four hours. French or German (2), four hours. Zoology (1 and 2), three hours, Psychology (1), three hours.

Junior Year—Histology, three hours. Osteology, two hours. Chemistry, four hours. Education (3 and 4), three hours. Bacteriology, two hours. Theory of Gymnastics and Playground, two hours.

Senior Year—First semester: Physiology, four hours. School Hygiene, two hours. Corrective Gymnastics, three hours. Art of Teaching Gymnastics, two hours. Symptomatology, one hour.

Second semester: Physiology, four hours. Sanitary Hygiene, two hours. Special Physiology, three hours. Anthropometry, two hours. Emergencies and Bandages, one hour.

SUMMER SCHOOL**FACULTY.**

- P. L. CAMPBELL, B. A., President of the University.
- JOSEPH SCHAFER, Ph. D., Director of the Summer School and Professor of History.
- J. H. ACKERMAN, Lecturer on School Supervision.
President of Oregon State Normal School, Monmouth.
Ex-Superintendent of Public Instruction of Oregon.
- LEWIS R. ALDERMAN, B. A., Lecturer on School Supervision.
B. A., University of Oregon, 1898. Professor of Education,
University of Oregon, 1908-10; State Superintendent of
Public Instruction for Oregon since 1910.
- ADOLPH A. BERLE, M. A., D. D., Lecturer on Intensive Education.
B. A., M. A., Harvard University; D. D.; Student Berlin, Paris,
and London. Woodbridge Professor of Applied Christianity,
Tufts College. Pastor, Educator and Author.
- JOHN FREEMAN BOVARD, M. S., Professor of Biology, Marine Station.
B. S., University of California, 1903; M. S., 1906. Professor
of Zoology, University of Oregon.
- WILLIAM PINGRY BOYNTON, Ph. D., Professor of Physics.
B. A., Dartmouth College, 1890; M. A., 1893; Scholar and Fellow
in Physics, Clark University, 1894-97; Ph. D., Clark Uni-
versity, 1897. Professor of Physics, University of Oregon.
- GUSTAV CARL BUEHRER, Instructor in Music.
Director of School of Music, Leland Stanford, Jr. University.
- RICHARD BURTON, Ph. D., Lecturer on English Literature.
B. A., Trinity College, 1883; Ph. D., Johns Hopkins, 1888;
editor Churchman, New York, 1888-9; literary editor Hart-
ford Courant, 1890-7; associate editor Warner's Library of
the World's Best Literature, 1897-9; head English depart-

ment, University of Minnesota, 1898-1902; editor Lothrop Publishing Co. 1902-4; professional lecturer on English literature, University of Chicago, 1902-6; head English department, University of Minnesota, since 1906. Author, poet and lecturer.

J. A. CHURCHILL, Lecturer on School Supervision.
Superintendent of City Schools, Baker, Oregon.

TIMOTHY CLORAN, Ph. D., Professor Romance Languages.

B. S., Western Reserve University, 1891; Student, Universities of Berlin and Strassburg, 1897-99; Ph. D., University of Strassburg, 1901; Student, University of Paris, 1904-5; Student, University of Madrid, 1905-6.

FRANCIS DAY CURTIS, B. A., Instructor in Physics.
B. A., University of Oregon, 1911.

FRANCES FROTHINGHAM, Instructor in Music.

Instructor in Piano, Caruthers Normal Training School, Chicago, 1901-1911; Columbia School of Music since 1911.

J. C. GARY, Lecturer on School Supervision.
County School Superintendent, Clackamas County.

FREDERICK H. HODGE, M. A., Professor of Mathematics.
Professor of Mathematics, Franklin College, Franklin, Indiana.

MARY GOODBAR MORGAN, Instructor in Music.
Acting head School of Music, University of Oregon.

FERDINAND J. NEUBAUER, B. A., Instructor in Mathematics.
B. A. University of Oregon, 1910.

MARY H. PERKINS, M. A., Instructor in English Composition.
B. A. Bates College; M. A. Radcliffe College.

GEORGE REBEC, Ph. D., Professor of Education.

Ph. B. University of Michigan, 1891; Student, University of Strassburg, 1893-94; Ph. D. University of Michigan, 1897. Instructor in English, University of Michigan, 1891-93; Department of Philosophy, 1894-09. Normal Lecturer for Department of Public Instruction, Hawaii, 1903. Lecturer for American University Extension Association, 1909. Research Studies, Italy, 1908-09.

FRIEDRICH G. G. SCHMIDT, Ph. D., Professor of German.

Student, University of Erlangen, 1888-90; Student, Johns Hopkins University, 1893-96; University Scholar, 1894-95; Fellow, 1895-96; Ph. D. 1896. Author and editor.

GRANT SHOWERMAN, Ph. D., Professor of Latin.

B. A. University of Wisconsin, 1896; M. A. 1897; Fellow in Latin, 1896-8; Ph. D. 1900; Fellow, Archeological Institute of America, at American School of Classical Studies, Rome, 1898-1900; Professor of Latin Literature, University of Wisconsin, since 1900. Author "With the Professor," a series of educational essays, 1910. Contributor to leading literary and philological journals.

GRANT SMITH, Ph. D., Professor of Biology.

B. S. University of Wisconsin, 1897; M. S. 1899; Ph. D. Harvard University, 1904; Assistant in Biology, University of Wisconsin, 1897-99; Instructor in Zoology, Beloit College, 1899-1901; Austin Teaching Fellow, Harvard, 1902-4; head Department of Science, Chicago Teachers' College, since 1904.

ORIN FLETCHER STAFFORD, M. A., Professor of Chemistry.

B. A. University of Kansas; M. A. University of Kansas. Graduate Student, University of Berlin, 1908-09.

BERTHA STUART, A. B., M. D., Director Women's Gymnasium, and Instructor in Physical Training.

B. A. University of Michigan; M. D. University of Michigan.

ALBERT RADDIN SWEETSER, M. A., Professor of Biology, Marine Station.

B. A. Wesleyan University, 1884; M. A. Wesleyan University, 1887.

FRANKLIN K. WELLES, Lecturer on School Supervision.
County School Superintendent, Umatilla County.

PERCY WELLS, Lecturer on School Supervision.
County School Superintendent, Jackson County.

SELDEN LINCOLN WHITCOMB, M. A., Professor of English Literature. B. A. Iowa College, 1887; M. A. 1891; Student, Cornell University, 1889-91; Student, Columbia University, 1892-94; M. A. 1893; Student, Harvard University, 1903-4 and spring 1909; University of Chicago Summer School, 1908; Professor of English Literature, Iowa College, 1895-1905; Professor of English Literature University of Kansas since 1905. Author, "Chronological Outlines of American Literature," 1894; "The Study of a Novel," 1905; contributor in prose and verse to various magazines.

LENGTH OF SESSION.

The eighth annual summer session of the University of Oregon will open Monday, June 24, 1912. The session lasts six weeks, and closes Friday, August 2, 1912.

PURPOSE.

The purpose of the University in offering this six weeks' summer term is to extend to those who are otherwise engaged during the school year the advantages which the University offers for instruction, together with the aid afforded by the library, laboratories, and other facilities for study connected with the University. Special effort is made in all departments to make the work of real, practical benefit to those who are actually engaged in teaching. The greater number of summer school students are teachers. An excellent opportunity is given superintendents, principals, and teachers to meet those from other parts of the State to their mutual benefit. High school teachers are enabled to make special study in lines in which they are most interested and to meet and work with others doing university research along similar lines. The summer session offers a means of keeping abreast of the latest developments in their subjects.

The opportunity for practical laboratory work is also a valuable adjunct to the summer session. Every opportunity is offered for instruction in laboratory methods, and the matter of practical high school equipment is given special attention.

There is also an increasing number of college students who each year take advantage of the summer session. It enables them

to take work for which they do not have time during the regular session and to make up work which for any reason they have missed or in which they have deficiencies.

Students who are preparing to enter the freshman class in the fall will find this an excellent opportunity to become acquainted with the methods pursued at the University. Credits to satisfy entrance requirements may be substituted in a number of summer school subjects.

Persons who are hoping to enter the University for regular work at some future time will also find this an excellent opportunity to become acquainted with the institution, its spirit and methods.

NEW FEATURES FOR 1912.

The year 1912 marks a notable development in the summer school feature of the University. Heretofore this session has been more or less experimental, but the interest manifested by teachers and others in recent sessions, and especially that of 1911, seemed to warrant a very large expansion of our curriculum and the associated activities.

The following are some of the most significant additions to the curriculum:

1. A Department of Physical Education, under Dr. Bertha Stuart who offers courses in Theory and Practice of Gymnastics, and in School and Personal Hygiene.

2. A Department of Latin, under Dr. Grant Showerman, Professor of Latin Literature at the University of Wisconsin, who offers a special course for teachers of Latin and gives lectures on Roman Life, Literature and Ideals.

3. A Department of Music, under Mr. G. C. Buehrer, Director of Music, Stanford University, who offers courses in sight-singing, Theory and Practice of Teaching School Music, and History of Music.

4. The unique course of lectures by Dr. A. A. Berle on the intensive education of children in the home.

5. A significant course of lectures on the Study of Nature in Town and Country Schools, by Professor Grant Smith, head of the Science Department, Chicago Teachers' College, a recognized specialist in Biology and Nature Study.

6. A course of general lectures on the subject of Aesthetics by Dr. George Rebec, late of the University of Michigan.

7. General lectures on the American Nature Essayists, by Professor Selden L. Whitcomb, of the University of Kansas.

8. The morning talks by the director.

In addition to the enlargement of the curriculum indicated above, we are adding the following special features which may be placed under the head of

ASSOCIATED ACTIVITIES.

1. A special course for teachers of piano, by Miss Frothingham of Chicago, assisted by Miss Mary Morgan.

2. The Mother's Congress and other meetings.

3. The lectures and conferences on Town and Country Life. (Not yet fully arranged.)

4. A series of lectures, followed by conferences on the general subject, Ministerial Efficiency.

5. The Platform Lectures by Dr. Burton and such other distinguished popular lectures as we may be able to secure.

We might add to this statement, the provision for outdoor living especially for families who may desire to come to Eugene and camp during the session or a portion of it.

TERMS OF ADMISSION.

(A SPECIAL WORD TO TEACHERS.)

The matriculation requirements for persons who desire University credit are in general the same for the summer session as for other sessions of the University, yet, in view of the special appeal which a summer session makes to the large class of teachers, for many of whom this is the only opportunity to do some college work, the following slight modifications of the rules will be permitted under the conditions stated:

(a) Any person who has taught or is authorized to teach a school in this State for the period of one year, under a regular certificate, is entitled to the privileges of the University Summer Session whether or not he has attained the adult age of 20 years.

(b) The question whether or not work in the Summer Session can be found which will meet a particular person's needs can be

best determined in consultation, by correspondence or otherwise, with the University authorities. We suggest that any teacher who is looking forward to a University education (either for the sake of fitting for general high school teaching or for other purposes), and who would like to make a beginning on such a course as soon as possible, write a letter to the Director of the Summer School giving as full and clear an account as possible of his preparation under the following heads:

1. The kind of certificate he holds, when secured, the grade made in each subject, and the amount of teaching experience he has had.

2. What secondary school subjects, aside from those certified, he has studied, in what manner (whether in school or otherwise), and to what extent; always giving grades if possible. Note general reading—literary, historical, scientific, religious, etc.

3. What college subjects he desires to pursue at the Summer School and for what purpose.

The Director will consider the information contained in such letter and will write his opinion as to whether or not the applicant would be likely to find profitable work at the University Summer School. If the applicant seems prepared to take up one or two subjects successfully, he will be welcomed; and if he convinces his instructors that the work done in the session is of satisfactory quality, he will be credited with the courses on the University records. Persons whose summer session work proves successful, will also be given help, by correspondence and otherwise, toward preparing themselves for other University courses during the period which must elapse before they are able to take up work regularly in residence.

It should be noted that the University Summer School offers no formal courses for those intending to do primary teaching. Such courses can be had at the session to be held at the State Normal School, at Monmouth. Neither does the University offer courses for teachers of the special subjects of Manual Training or Domestic Science. For these, provision is made at the Oregon Agricultural College, at Corvallis. The distinct field of our Summer Session is, first, college work in the several lines described on the following pages, courses for high school teachers and for superintendents,

and special courses in Physical Education and in Music. And it is the desire of the University to reach helpfully through the summer session as large a proportion as possible of the young men and women of the State who may be well qualified to begin work of college grade, but who, for financial or other reasons, have not been able to attend college. Several of the courses offered at the summer session may be used to complete the requirements for entering college, thus affording special help to those who have found themselves obliged to begin teaching or take up other gainful work before fully completing the high school course.

SPECIAL STUDENTS OTHER THAN TEACHERS.

Persons of mature years are always welcomed at the University and are permitted to pursue any studies from which they can derive benefit, irrespective of the technical qualifications involved in the usual requirement of high school graduation. Ordinarily, only a very small number of special students attend the regular sessions. It is believed, however, that the Summer School offers special inducements to such persons. We are to have this year a variety of special lectures, with conferences upon topics of vital social interest like education, the problems connected with child welfare, with city and town life, and with country life. Those who plan to attend these conferences are invited to register for some of the regular courses and to spend, if possible, the entire six weeks period at the University.

There are also young persons, other than teachers, who may be splendidly fitted to take up college work but who are defective in their high school training. There are bright, eager young men and women on the farms, in offices and stores, as well as in the school room, who ought to be making a beginning toward the college course for which they have cherished an ambition. The Summer School may be found of peculiar service to such persons, for many of them could arrange to secure a vacation from their regular employments during the six weeks and could in that time gain a pretty thorough acquaintance with the conditions of college work. Their presence here will enable the University authorities to study their special needs and to arrange for them correspondence

courses and other helps toward profitable private study until such time as they may be prepared to pursue the college work regularly in residence.

FEES.

The fee for the summer session, irrespective of the number of courses taken, will be ten (10) dollars. The fee in laboratory courses will cover only the cost of materials used.

BOARD AND ROOM.

The main dormitories of the University will be kept open throughout the summer session for the accommodation of Summer School students. The rooms will be rented only to the women, and the price to each occupant will be 50 cents per week. Each room will accommodate two. Board will be furnished both men and women at \$3.00 per week.

With each room in the Dormitory is furnished table, chairs, bedstead, springs, mattress, light, etc., and it will be necessary for each occupant to furnish only such light bedding as may be required, towels, etc. Applications for rooms should be made as early as possible to the clerk of the Dormitory, Eugene. Rooms will be held not longer than the first day of the session, unless a special deposit is made to secure them.

Men attending the session will have no difficulty in securing rooms in private houses near the campus at prices ranging from \$4.00 to \$10 per month. A full list of rooms will be on file in the Registrar's office.

OUTDOOR LIVING.

There will be opportunity for a number of women students to occupy sleeping tents placed on the lawn of the women's dormitory, the grounds of which are patrolled by the University night-watch. Opportunity will also be furnished to such families as may apply for it, to occupy floored tenting ground in a section of the University grounds furnished with shade trees and supplied with city water. The camp will not be under a regular guard, and for this reason none but families will be admitted. Those desiring to occupy space in the camp should apply in advance, specifying the

size of tent required and other particulars. Those attending conferences are entitled to tenting privileges equally with those who register for regular work.

REDUCED RAILROAD RATES.

Reduced railroad rates of one and one-third fares, on the certificate plan, have been granted the University of Oregon from June 14th to August 4th. These rates are good for all of the University events coming between the two dates, including the annual Commencement exercises (June 16th to 19th), Summer School (June 24th to August 2nd), the conventions of the Oregon Congress of Mothers and Parent-Teachers Association (July 2nd to 3rd), Librarians' Convention (dates to be announced), and Town and Country Life Conferences (dates to be announced), etc. In order to secure the reduced rates, *each person expecting to attend any of these events should secure a receipt or certificate from the ticket agent at the time of purchasing his railroad ticket to Eugene. If this certificate is not obtained, reduced rates cannot be granted.* This certificate properly signed by the Registrar of the University will entitle the holder to one-third fare returning home.

REGISTRATION.

Registration must precede entrance upon any part of the work of the session. Students should report at the Registrar's office either Saturday, June 22nd, or Monday morning, June 24th, and pay the registration fee. Lectures will begin at 11 o'clock Monday morning. It is important that students be present on the opening day of the session. Students who enter late, however, will be given an opportunity to make up a reasonable amount of work, but those entering after the first week will usually find it difficult to take full work for credit.

CREDITS FOR SUMMER SESSION WORK.

Candidates for a degree in the University will receive credit for work done in the summer session, provided their work satisfies the department and they pass the examination held at the end of the course in which credit is desired. A total of seven semester hours may be allowed for the work of a session.

LOCATION AND CLIMATE.

The University of Oregon is exceptionally well located to afford a pleasant place for summer study. Eugene, a town of 12,000 people, is at the head of the Willamette Valley, so situated that there is hardly a day of the summer that is not made pleasant by a cool northwestern breeze blowing directly from the ocean. The University buildings are situated on a natural rise of ground overlooking the city and surrounded by a beautifully parked campus in which are large numbers of evergreen and deciduous trees, making a delightfully cool and shaded place for summer work. The Willamette River flows along the campus on the north, and the McKenzie River, flowing directly from the snow-capped Three Sisters, is only a short distance away. The Race affords a delightful opportunity for canoeing and picnicking. Numerous tennis courts, the baseball diamonds, and the golf links, all of which are free to students, give ample scope for athletic diversions and for wholesome exercise.

RECREATION.

The social life at the Summer Session in recent years has been most enjoyable and the effort will be made to render it even more pleasant this year. There will be the customary Summer School party, held early in the session either at the reception room of the Dormitory or on the lawn in front of the President's house. In addition to numerous picnics on the Race and river, and the continuation of a delightful custom inaugurated last year of taking picnic suppers on the University campus, there will be the annual excursion to McKenzie River and several early morning expeditions each week for bird study, under the leadership of Professors Smith and Whitcomb.

DAILY ASSEMBLY.

A general assembly will be held on each school day of the session at 7:30 A. M. A brief opening exercise will be planned which will include a musical feature. The Director will have charge of these exercises and will deliver on each occasion a short address—not more than 15 minutes in length—on some topic which promises to be interesting and helpful to all. The themes will be

educational, geographical, historical, and political or sociological. The leading theme will be "Oregon—Past, Present and Future." Attendance at these meetings will be voluntary.

GENERAL LECTURES.

The period from 11 A. M. to 12 M. of each day will be reserved for addresses dealing with scientific, literary, philosophical and educational subjects. No regular classes will be in session during this hour and all students of the Summer School are expected to attend. The lectures this year will be arranged in courses of five or ten lectures. These will usually treat related topics of a single theme. Except in one case, they will be given by regular members of the Summer School faculty. While some changes may occur in our present program, it is expected that the following courses will be given:

I.

By DR. A. A. BERLE.

The general title of Dr. Berle's lectures will be Intensive Education, and will present various phases of elementary child training, especially with a view to securing greater efficiency for the teacher and more rapid and comprehensive training for the child. The following is a tentative outline of the lectures:

I. *Historical.*

1. Classical Conceptions of Child Training and Their Modern Equivalents.
2. Permanent Results of the Classical Theories in Literature and Life.

II. *Biological.*

1. The Biological Basis for Intensive Training in Childhood.
2. The Practical Basis and Estimate of Child Capacity.

III. *The Invention of Thought.*

1. The Method of Stimulus and the Method of Nutrition. Language.
2. Intellectual Fertilization. Principle and Method. Science.

IV. *Organization and Co-Ordination.*

1. Groups of Knowledge and Their Relation.
2. Classification and Comparison of Ideas.

Each of these groups of two lectures to be followed by a third of general discussion of the lectures with questions and objections. Twelve lectures, to be delivered on the first twelve days of the Summer Session.

II.

By DR. GRANT SMITH.

The general title of Dr. Smith's lectures will be "Nature Study for Town and Country Schools." The aim will be to present the possibilities for a truly educative study of the appropriate features of the natural environment by applying thereto the elementary principles of Botany and Zoology. The lectures to be delivered will be selected and adapted from the following list of topics:

1. Nature Study in the Genesis of an Education.
2. General Methods in Nature Study—Past and Present; Their Comparative Merit.
3. The School Equipment for Nature Study (School Museums, School Gardens Indoors and Out of Doors, etc.)
4. Nature Study in Towns and Cities Through Elementary Horticulture. (Includes Floriculture.)
5. Application Studies of Bacteria, Moulds and Yeasts in the Home.
6. Application Studies of the Structure of Woods Used in the Home.
7. Tree Studies (or, the Wild-Shrub Garden).
8. The Wild Flowers of Summer (or, Wild-Flower Gardens).
9. The Economic Importance of Birds.
10. Bird Studies.
11. Soil Studies.
12. The Insect Enemies of Plants and Their Control.

III.

By PROFESSOR SELDEN L. WHITCOMB.

The general title of Professor Whitcomb's lectures at the 11 o'clock hour will probably be "The American Nature Essayists."

Professor Whitcomb has specialized along this line of American literature and his lectures promise to be of especial interest on account of their relation to the theme of the preceding course on Nature Study. The special subjects are not yet in hand. Probably five lectures will be given, perhaps a smaller number.

IV.

By PROFESSOR GRANT SHOWERMAN.

Professor Showerman will deliver a course of five lectures on the following subjects:

1. *The Roman Ideal*. This deals especially with the civic and moral ideal.

2. *The Spirit of Roman Literature*. The reflection of Roman life in letters, especially in Caesar and Cicero.

3. *The Roman Contribution to Prose Style*. Cicero will be the basis of criticism.

4. *A Roman Poet and Philosopher of Life*. Horace will be the basis.

5. *The Significance of the Greek and Roman Civilization*. In this lecture Professor Showerman connects his general theme with modern conditions and ideals, and attempts to show what the classical world means to the world of today.

Some of these lectures will be illustrated. Doctor Showerman is prepared to offer substitutes for any of the above lectures and also to give additional numbers should there be time and opportunity for them.

V.

By PROFESSOR GEORGE REBEC.

Professor Rebec, late of the Philosophical faculty, University of Michigan, will deliver a series of five lectures on the general theme, "Types of Beauty." In this series an attempt will be made to identify the chief types of the beautiful, in their historic succession and setting, and in order to suggest their part, not only

in the past of the aesthetic consciousness, but in its abiding organization. The titles are as follows:

1. Beauty—Some Elucidations and Touchstones.
2. Orient and Occident.
3. The Sculptured Gods.
4. The Gothic Genius—Dante and the Cathedrals.
5. The Modern Quest—Michelangelo and Shakespeare; Rembrandt and Milton; Beethoven, Balzac, and What?

SPECIAL LECTURES AND CONFERENCES.

The Summer School is making itself the means of bringing essential help to the people of Oregon generally who feel the pressure of grave social problems calling for solution, as well as to the regularly enrolled students. To that end, we are arranging for a number of special lectures on significant vital problems, which lectures are to form the basis of conferences and discussions to be participated in by all who choose to come to Eugene for the purpose. There will be a convention of the Oregon Congress of Mothers and Parent-Teacher Association on Tuesday and Wednesday, July 2nd and 3rd. It will be presided over by Mrs. Robert H. Tate, president of the Oregon Congress of Mothers, and lectures will be given by a number of prominent men and women of the State. The topics discussed will include the following: Sex Hygiene; School Ventilation and the Open Air School; Medical Inspection of School Children; Play and Playgrounds; and The Supervision of Commercialized Recreation Like Dance Halls and Motion Picture Theatres; The School as a Social Center; The Intensive Training of Children in the Home; The Reorganization of Common School Work.

Efforts are being made to secure the services of one or two sociologists of national repute to deliver lectures on the larger problems of Town and Country Life and to conduct conferences on the subjects of their lectures. These conferences, like those included in the program outlined above, will be of great interest to the teachers, mothers, and parents and they will also appeal directly, because they are to deal with fundamental social problems, to every worker in the cause of social betterment—to those

seeking better conditions for labor, to club-women, grange workers, clergymen and others. The attempt will be made to co-ordinate these conferences with the Mothers' Congress, both as to time and as to topics, so that all who come to attend either series of conferences may conveniently and profitably arrange to attend both series.

Arrangements have been made whereby Dr. John W. Boyd, pastor of the First Presbyterian church, Portland, will deliver a series of lectures on the theme Ministerial Efficiency and conduct conferences on the subject of the lectures. The special topics will deal with the most vital problems of the minister's relation to his community and will therefore involve the practical application of important sociological principles. Leading divines of the State will be invited to co-operate with Dr. Boyd in the conference.

There will be no charge for registration on the part of those coming here to attend the conferences and listen to the special lectures. On the other hand, such persons are urged to make their stay as profitable as possible and they are invited to attend the general lectures at 11 o'clock also. Should they plan to remain several weeks, and carry in addition the work of one or more of the regular courses, an arrangement will be made by which they may pay such a proportion of the usual registration fee as the number of weeks' attendance bears to the total number of weeks of the Summer Session.

PLATFORM LECTURES.

In order to afford the Summer School students, conference visitors, and the people of Eugene and nearby towns, an opportunity to hear some of the choicest popular lectures, an effort is being made to bring to Eugene during the Summer Session several famous platform speakers. We are able to announce, at this time, two lectures by Dr. Richard Burton, of Minneapolis. Doctor Burton is head of the Department of English, of the University of Minnesota. He is a poet, a brilliant prose writer, a penetrating literary critic, and one of the most successful chautauqua lecturers now before the public. He will speak at the University on the evening of July 25th, subject: *The Return to Dickens*; and on the evening of July 26th, subject: *Robert Louis Stevenson*. These lectures

will be free to regularly registered students of the Summer School. Others will pay an admission fee, the amount of which will be determined later.

It may be possible to secure additional lectures from Doctor Burton. Other lectures will be announced later.

CONCERTS.

The School of Music, which conducts a summer school in connection with the University Summer School, can be depended on to arrange at least one elaborate musical program to occupy a week-end evening during the session. It is possible that other musical features can be provided for other evenings, and special attention will be given to music in connection with the morning exercises and perhaps in connection with some of the 11 o'clock lectures.

UNIVERSITY SUMMER SCHOOL AN IDEAL CHAUTAUQUA ASSEMBLY.

It will be seen from the forecast of the public features of the Summer School program, that visitors to Eugene during the period of June 24th to August 2nd will find themselves in touch with what is virtually an ideal Chautauqua Assembly. What with the brief morning exercises and lectures, the general 11 o'clock lectures by distinguished educators and lecturers, the special features and conferences on vital problems of general interest, and the platform lectures, concerts, etc., on a number of the evenings there can hardly be a dearth of both entertainment and instruction to those who do not care to pursue regular college work. Since, however, it will be possible for any one having the requisite preparation, to secure admittance to courses of instruction in a wide range of studies, to utilize well equipped laboratories and the best library facilities in the State, the inducements offered by the University to persons everywhere who wish to spend a few weeks in improving study and intercourse would seem to be very powerful. Attention is called to the camping facilities which the University is prepared to offer on application to a considerable number of families who desire to couple the pleasure of outdoor living with such a summer experience.

ANNOUNCEMENT OF COURSES FOR 1912.

BIOLOGY.

Dr. Grant Smith.

1. *General Botany.* Laboratory exercises, field work, lectures, and assigned readings devoted to materials selected from the great plant-groups with special reference to the needs of teachers in high school botany. This course includes: Making of plant cultures, preparation of materials, courses of study, suggestions concerning methods of presentation, the making and use of artificial keys.
Three hours per day, including laboratory work.

2. *Animal Physiology.* Comparative study of types of animals which may be used to illuminate human physiology. The course includes demonstration of functions in living animals under the microscope by means of anæsthetics, methods of collecting and preparing material, and elaboration of selected topics in human physiology.
Four lectures per week.

For courses in General Zoology, Ecology, Embryology, Ichthyology, also courses in Algology and Systematic Botany, see section of this catalogue under Puget Sound Marine Station.

The privileges of the Marine Station present to the teacher of high school and college Biology unexcelled opportunities to study animals and plants in their native environment.

CHEMISTRY.

Prof. Stafford.

Three courses are offered: General Chemistry, Analysis A, and Analysis B.

1. *General Chemistry.* This course is intended to serve as a substantial introduction to the subject of Chemistry. Typical elements and their compounds are studied, the number taken up being sufficient to bring out the important underlying laws which describe chemical action in general. In connection with the class work, laboratory exercises give opportunity for first-hand contact with the materials of Chemistry, and serve an important use in the development of scientific method. One class-room exercise every

day except Saturday and two afternoons per week in laboratory. Four hours of college credit will be given upon completion of the course.

Four semester hours.

2. *Analysis A.* Open to students who have had a year of Chemistry. Qualitative Analysis accompanied by as much Quantitative work as the time will permit. Laboratory 1 to 5 every day except Saturday, with occasional class-room discussions.

Three semester hours.

3. *Analysis B.* Open to students who have had the equivalent of Analysis A. Quantitative work in the laboratory. Hours 1 to 5 every day except Saturday.

Three semester hours.

EDUCATION.

Dr. George Rebec.

Pedagogy.

1. *Basic Ideas in Education.* An inquiry, in a philosophical spirit, into the meaning and aims of education, with a view to sketching the basal outlines of an adequate educational program.

2. *Rural School Supervisor's Course.* As in previous years there will be a course of lectures, with conferences, for the benefit of school supervisors with special reference to the new supervisors of rural schools. The University library is making an effort to secure a complete representation of the most important literature on the subject of rural education and rural life, all of which will be at the service of students taking the course. Lectures will be given by Superintendent L. R. Alderman, Ex-Superintendent J. H. Ackerman, County Superintendents Frank K. Welles of Umatilla, J. C. Gary of Clackamas, and Percy Wells of Jackson; also by Superintendent J. A. Churchill of Baker, and perhaps others.

The conferences will enable the supervisors and superintendents to pool their experiences of the past year, and plan a harmonious and effective campaign for the year to come.

3. *City School Supervision.* A course of lectures by Superintendent J. A. Churchill, Baker, Oregon. It may be possible to supplement this course with lectures by other leading superintendents and principals.

ENGLISH LITERATURE.

Professor Sheldon L. Whitcomb.

Professor Whitcomb will offer the following courses in literature:

1. *The History of English Literature.* With special reference to the needs of high school teachers. Some attention will be given to methods of instruction in high schools.

2. *Some Nineteenth Century Novelists.* An intensive study of Dickens, and possibly of Thackeray and George Eliot.

Some changes may be made in this program should they seem to be called for.

CONSULTATIONS.

Professor Whitcomb will appoint a consultation hour to enable him to be helpful to the individual student or teacher who may desire to talk over problems in English Literature, obtain suggestions about reading, etc.

ENGLISH COMPOSITION.

Miss Perkins.

1. *English Composition.* A study of the principles of Exposition, Description, Argument, and Narration. Lectures, class discussion and criticism of themes. Individual conferences if time admits. Frequent written work will be required.

Three semester hours.

GERMAN.

Professor Schmidt.

1. *Elementary German.* Grammar and reading of easy texts. Students intending to take this course should provide themselves Vos's Concise German Grammar (Henry Holt & Co., New York). Only the essentials of the grammar will be studied, and reading of connected texts will be taken up after a few lessons. Students who wish to review or who have been conditioned in the first or second semester will also be admitted to this course to make up

the work they missed. After a successful examination at the end of the session, the condition will be removed and full credit granted. Five times a week at 8 o'clock.

2. *Advanced German.* Adapted to the preparation of those who register for this course. The work consists mostly of reading narrative and descriptive prose of recent authors and is intended especially for those who wish to review or to make up some work during the summer and enter a more advanced class at the beginning of the regular term in September. Part of the hour will be devoted to German conversation. Two to six semester hours of

credit will be allowed, according to the amount of work assigned to the student at the opening of the session. Five times a week at 9 o'clock.

Two to six semester hours' credit.

3. *Teaching of Modern Languages.* Discussion of methods, examination of text-books in German. Text-book: Bagster-Collins' *Teaching of German in Secondary Schools*. This course is recommended to those who are teaching or intend to teach German in the high schools of the State. Outside reading will be required in connection with this course. Monday, Wednesday and Friday, at 10 o'clock.

Two semester hours' credit.

German texts can be had at the University book store.

HISTORY.

Professor Schafer.

There will be one general course in American History; topic, *American Statesmanship and Statesmen*. It will involve the study of leadership as illustrated in the political life of the nation. The attempt will be made to analyze the careers of leading statesmen of each epoch, from the Revolution to the present time, in such a manner as to disclose the secrets of their influence upon American public life. The course will involve a concrete study of American political ideals, also a consideration of the political conditions which the statesmanship of each period reflects and the issues which it personalizes. The needs of teachers of history will be kept steadily in view in the administration of this course. Daily at 9 o'clock.

Consultation hour, 10 o'clock daily. The consultation hour is for the purpose of affording opportunity to discuss individual problems in history teaching and study.

LATIN.

Professor Grant Showerman.

NOTE.—The University is able to offer this year a special summer school opportunity for teachers of Latin for whom heretofore such help has not been available. And it is a source of special gratification that we are able to bring to Eugene to inaugurate the summer Latin courses so distinguished a classicist and so brilliant and stimulating a teacher as Professor Grant Showerman of the University of Wisconsin. We believe that this new departure will be appreciated by the Latin teachers of Oregon and the Northwest generally.

TEACHER'S COURSE IN LATIN.

This course will include lectures and discussions on the educational aims of classical instruction, the pedagogy of Latin teaching in the high school, the courses of study, etc. It will involve the actual handling of selected portions of the first three or four years work. Those expecting to take this course are requested to bring some school edition of Cæsar, Cicero, and Virgil, and a history of Latin Literature. *Daily during the six weeks.*

CONSULTATIONS.

Professor Showerman will be prepared to meet, at a stated hour, any student or teacher interested in Latin either as a learner or as a teacher. He will suggest reading, talk over problems, and in a word afford such assistance as seems to be demanded in the particular case.

It is believed that the consultation plan will enable the instructor to meet the needs of summer school students better than he could by offering one or more additional courses in Latin.

Attention is called to Professor Showerman's general lectures on Roman Life, Literature and Ideals described on page of this bulletin.

MATHEMATICS.

Professor Hodge.

Mr. Neubauer.

The work is planned to meet the actual needs of teachers, both as to subject-matter covered, and the methods of teaching it. A practical course in the teaching of high school mathematics will be offered. Two or more of the courses will be given as the needs of those applying suggest.

Provision will be made for those desiring review courses in Elementary Algebra and Plane Geometry.

1. *Solid Geometry*. A course covering Books VI, VII, and VIII, in Wentworth's Geometry.

2. *Advanced Algebra*. Quadratics and beyond. A course covering a selection of the most important topics.

Three semester hours.

3. *Plane Trigonometry*. The course presupposes a good knowledge of Algebra through quadratics.

Three semester hours.

4. *Teaching of High School Mathematics*. A course dealing with the best methods of teaching arithmetic, algebra, and geometry; and giving something of their history.

Two semester hours.

ROMANCE LANGUAGES.

Professor Cloran.

Elementary French. Fraser and Squair's French Grammar; Reading of easy French prose.

Elementary Spanish. Edgren's Spanish Grammar; Reading of easy Spanish prose.

Advanced French. Adapted to the preparation of those who register for this course.

PHYSICS.

Professor Boynton.

Mr. Curtis.

A. *Elementary Physics.* A rapid review of Millikan's and Gale's First Course in Physics. Daily recitations, supplemented by lecture demonstrations and a daily laboratory period. This course may be used to satisfy the matriculation requirement of the University, or in preparation for the State teacher's examination. The amount of work involved is sufficient to occupy the whole time of the student during the session. A laboratory fee of \$2.00 is charged in addition to the tuition fee.

1. *History and Teaching of Physics.* A course of daily recitations or conferences especially intended for teachers or those preparing for teaching. A reasonable familiarity with the subject matter of Elementary Physics is assumed. The first part of the course is based upon Cajori's History of Physics, and takes up the development of science by epochs. The balance of the course is based on Hall's chapters on Physics in Smith & Hall's Teaching of Chemistry and Physics. Among the topics discussed are the choice of the teaching profession and of the subject of Physics, the training of the teacher, the place of Physics in the high school course of study, the desirability and possible content of a preliminary course in general elementary science, the distribution of time between exposition, problems, laboratory, recitations, reviews and quizzes and examinations, the choice and order of topics for discussion, the equipment and organization of the laboratory and the relation of the course to the pupil's further study or life occupation.

Two semester hours' credit.

2. *Physical Technics.* Lectures, readings, class discussions and some laboratory practice, dealing particularly with the problems connected with the equipment of the class room and laboratory of the secondary school, and the necessary manipulations involved both in the use and in the care of this equipment.

Two semester hours' credit.

3. *Laboratory.* Opportunity is offered to do laboratory work of any grade, elementary or advanced. The equipment for the

general course of college grade is quite complete and thoroughly up to date. That for advanced work in Electrical Measurements is unusually complete and strong.

A deposit of \$5.00 is required of each student taking regular laboratory work, the unearned balance being returned at the end of the session. The usual expense of a course of one semester hour credit is \$2.50.

4. *Readings and Conferences.* Students prepared to do advanced work will have reading courses outlined for them, and will be given such time for conferences as they may need. Where credit is given for the work, written reports on the reading, and an examination will be required.

The library furnishes facilities for the study either of theoretical Physics, or of the pedagogy of the subject, containing files of the more important periodicals, sets of collected works of leading scientists, and special treatises. The collections of elementary texts, works on light, on radio-activity, and on wireless telegraphy, are especially complete. Collections of popular articles by Helmholtz, Baltzmann and others, give opportunities for the reading of scientific German.

PHYSICAL TRAINING.

Dr. Stuart.

The following courses are designed for (1) teachers who wish to give gymnastics in their schools and (2) those who wish general gymnastic work for recreation and exercise. It is proposed to equip a practice play ground in which plays and games suitable to different ages will be taught.

1. *Theory and Practice of Gymnastics.* A study of the principles underlying the various systems of gymnastics, the principles governing the selection and classification of exercises and the arrangement of lessons for gymnasium and school room; the value of gymnastics in the school curriculum. A brief study will be made of the nature and function of play. Games and folk dancing suitable for different grades will be taught. Practical work Monday, Wednesday, Friday, 8 A. M. 1 hour credit. Theory Tuesday, Thursday 8 A. M. 2 hours credit.

A locker coupon costing 75 cents must be procured at the Steward's office for use of gymnasium and baths. Some kind of gymnasium suit must be provided for the class work. A heart and lung examination will be given before beginning practical work.

2. *School and Personal Hygiene.* Discussion of ventilating, lighting and heating of school buildings; open air schools; equipment of school room; wider use of school plant. Tests for defective hearing and eye sight; adenoids, spinal curvature and bad posture.

Personal Hygiene includes dietetics; clothing; bathing; prevention of disease. Physiology and hygiene of pelvic organs. Monday, Tuesday, Wednesday, Thursday, Friday, 10 A. M.

Three hours' credit.

MUSIC.

(June 24th to July 20th.)

GENERAL ANNOUNCEMENTS.

Summer work for teachers in high schools in all educational work except music has long been recognized as necessary, in that it gives them an opportunity to increase their knowledge in their special work. The University recognizes the need of giving the same preparation to music teachers, and it is for this reason that the Summer School of Music has been begun this summer.

The courses are planned to give to teachers and supervisors of music preparation for work in public, high and normal schools. The training course for piano teachers will give an opportunity to students who expect to teach piano, and even to those who have taught many years, a concise means of giving musical training. The special training course has in view the training of children and adults as musicians, teaching them how to study and pointing the way to independent workmanship.

REGISTRATION.

Registration must precede entrance upon any part of the work of the Summer School of Music except the Training Course for Piano Teachers. Students should report at the Registrar's office either Saturday, June 22d, or Monday, June 24th, and pay the registration fee.

FEES.

The registration fee of \$10 covers all of the courses given by Mr. Buehrer. The fee for the work given by Miss Frothingham is announced below.

COURSES.

Mr. Buehrer.

1. *Sight Singing.* This includes singing at sight of phrases in all keys, introducing accidentals and modulations, singing one, two, three and four part songs, and choruses. Mr. Buehrer. One hour daily.

2. *Theory and Practice of Teaching School Music.* Includes lectures on the place of music as an educational factor, the application of teaching material, and the preparation and teaching of classes. Mr. Buehrer. Two hours per week.

3. *History of Music.* Lectures are given on the development of music from its earlier stages; history of church music; opera and oratorio; history of purely instrumental music, showing its growth, and the development of musical forms to their culmination in Beethoven. Some practical illustrations in musical form are given in the classroom. Mr. Buehrer. One hour daily.

Two semester hours' credit.

Mr. Buehrer is at present Director of Music at Stanford University, California, where he has been organist and choral director for the past five years. He has charge of all theoretical courses, besides doing the choral and orchestral work there.

Mr. Buehrer has spent some years abroad in the study of organ, composition and voice, having given song recitals in Paris and organ recitals in Paris and Rome.

Miss Frothingham.

Miss Morgan.

1. *Training Course for Piano Teachers.* This course is given three hours daily, and includes one hour in Ear Training and Harmony, one hour Technic, and one hour in Method of Training. The work is given as follows: (1) Ear Training and Harmony. In this course drill is given by which the mind may recognize

and retain rhythm, melody and harmony. One hour daily.

(2) *Technic.* The work provides a means of development of the fingers, wrists and arms, which gives a technical means of expression. Systematic drills rhythmically given, and also tone studies illustrating the means of development. One hour daily.

(3) *Methods of Teaching.* Various topics will be discussed regarding the musical welfare of the child, in addition to a demonstration class of several children, applying the work of the drills. One hour daily. A fee of \$30 is charged for this course.

Miss Frances Frothingham, who comes from Chicago to give this work, is a well known educator in Music. She has been for ten years in the Caruthers Normal Training School, of Chicago, until recently engaged by the Columbia School of Music. Her work has been done in this country and in Europe, with the best teachers, such as Godowsky and Weidig. The University feels that it is a decided help to the musical interests of the State to bring a teacher of the experience and ability of Miss Frothingham to Eugene for summer work. It is an exceptional opportunity for music teachers. Special piano or harmony lessons with Miss Frothingham will be given if desired. Fees: one hour weekly, piano or harmony, \$18.00.

Miss Mary Goodbar Morgan, head of Department of Piano and Theory, University of Oregon, received her preparation from Mrs. E. T. Tobey, Memphis, Tennessee; Mr. William H. Sherwood, Chicago; Edith Bane, Chicago; Eleanor Sherwood, Chicago; Oscar Deiss, Chicago; and Mr. Sol. Marcossan, Cleveland. From 1897 to 1901, Miss Morgan was assistant instructor of piano at the State School for Women in Mississippi. During 1901-1902 she was at the Sherwood School of Music and returned to Mississippi in 1902 as associate director of piano at the State School for Women, which post she held until 1908, when she was called to the University of Oregon.

PUGET SOUND MARINE STATION.

The Puget Sound Marine Station is located at Friday Harbor, Washington, and is under the joint management of the universities of the Pacific Northwest.

Between Bellingham and Vancouver, at the northern end of Puget Sound, there is an archipelago of one hundred and fifty forested islands. Most of these islands are united politically, comprising the county of San Juan of the State of Washington. Underlaid with sandstone, limestone and metamorphic rocks, in part glaciated, they present every condition favorable to biological work. The outer side of the island group is exposed directly to the ocean water of the Gulf of Georgia and the Strait of Juan de Fuca. In the midst of the islands the water is protected, and here rare and delicate marine forms are to be found in great abundance. The rugged tide-swept shores of hard rock, which most of the islands present, teem with fixed animals and with those forms that love clean water. Since much of the shore line is comparatively free from sand the region is excellent for marine algae. Here and there in bays are sandy, gravelly or muddy beaches that abound in shore forms. The tides rise to a height of 12 feet, affording a great range for those plants and animals which cannot live well below the low tide line. In abundance of forms and of individuals the region is unsurpassed. Men acquainted with all the biological stations of the United States have uniformly pronounced this the richest collecting ground of their experience.

In this archipelago the Puget Sound Marine Station has been established. Friday Harbor is the county seat, a village on San Juan Island with about 400 people. Here is located a salmon cannery affording an opportunity of studying the salmon fisheries and the clam industry. The southern end of San Juan Island is a center for extensive trap fishing and gill netting. In the channels between the islands large beds of shrimp are trawled over by several small steamers engaged in this industry. Near by on the west side of the island is Kanaka Bay where the low tide exposes a gravelly or sandy bottom nearly a mile in extent. The biota here is especially abundant and interesting.

EQUIPMENT.

The class work of the station is conducted in a newly constructed laboratory provided with facilities for a considerable number of students. The building is three stories in height with general laboratories, stock room and office on the ground floor;

in the second story are located the research rooms, lecture hall and supply department. The attic floor is fitted up as a store room and drying loft. Two dark rooms are provided for photographic operations. Running water, both salt and fresh, is piped to all parts of the building. Since the building is constructed at the waters' edge, the transportation of material to and from the laboratory is greatly facilitated.

Two large aquaria, together with numerous smaller receptacles of the same character, make possible the study of the more interesting forms of marine life in the living state.

The equipment includes a small steamer used for dredging in deep water and a launch for transporting parties to and from distant collecting grounds. Small boats are provided for shore collecting.

Microscopes and general equipment will be supplied by the station. Apparatus or reagents for special work will be provided where possible if due notice is given beforehand.

A small, but well selected, library will be available, containing literature of a general character, as well as much that bears more or less directly upon the flora and fauna of the region.

ACCESS.

Friday Harbor may be reached by boat from Seattle, Anacortes or Bellingham. The steamer *Rosalie* leaves Seattle at midnight, Sunday, Tuesday and Thursday, reaching Friday Harbor about 8 A. M. Steamers also leave Bellingham and Anacortes for Friday Harbor each morning. The fare from Seattle is \$2.00.

EXPENSES.

The cost of spending the season of six weeks at the station need not exceed \$50. A commodious dining hall is provided, in which meals are served at a cost of \$4.00 per week.

The members of the party are housed in tents, with wooden floors and walls, which are suitable for two persons, and rent at \$5.00 for the season. Cots may also be rented for a small fee. No bedding is provided, so persons coming to the station should bring a supply suitable for rather cold nights.

No tuition is charged, but a laboratory fee of \$10 is collected to help meet the incidental expenses of the laboratory, such as launch hire and the maintenance of the collecting department.

MANAGEMENT.

Although the station was established and is financed by the University of Washington, each institution co-operating has on the Board of Control, one member from the Zoology department and one from the Botany department. The director of the laboratory is appointed by the University of Washington, the Board of Control acting as an advisory committee in the direction and operation of the work of the station.

COURSES FOR TEACHERS OF BIOLOGY, IN HIGH SCHOOLS AND COLLEGES.

While the Station does not outline special courses in Pedagogy, it does give the teacher the opportunity to collect, and study carefully, many of the animals that are text-book illustrations or that are used in the laboratories.

The courses are of two types: To one beginning work in teaching Biology, the Station offers the opportunity to widen knowledge; to one who has fundamentals of his subject well in hand, the Station affords a chance to do advanced work.

Those desiring to do special research along specific lines will find the instructing staff ready to give any assistance. The range of the work can be suited to individual needs.

COURSE OF STUDY FOR SUMMER SESSION.

June 24-August 2, 1912.

BOTANY.

Algology.—A study of the morphology and classification of marine and freshwater algae, including the preparation of a collection of representative forms.—*Humphrey.*

Systematic Botany.—An introduction to the structure, classification, and physiology of the flowering plants.—*Sweetser.*

ZOOLOGY.

Elementary Zoology.—A course of lectures accompanied by suitable laboratory exercises and field work designed to meet the needs of students who have had no previous training in zoology.—*Redenbaugh.*

General Ecology.—A study of the marine animals found in the region, including their collection, classification, distribution and habits. Field work, stereopticon lectures and photographic records of ecological phenomena.—*Brode.*

Embryology of Invertebrates.—Lectures and laboratory work dealing with the developmental history of the simpler forms of marine animals.—*Baumgartner.*

Ichthyology.—The structure, classification, and economic relations of the fishes found in the waters of Puget Sound.—*Smith.*

Advanced Ecology.—Studies upon the special problems relating to the habits and inter-relationships of the marine animals found in the local fauna.—*Kincaid.*

Plankton.—A systematic and ecological study of the pelagic organisms in the local waters.—*Bovard.*

RESEARCH.

Advanced students wishing to engage in research work in Botany or Zoology will be assigned problems for investigation to be conducted under the direction of the several members of the staff.

OPEN LECTURES.

A series of evening lectures will be given by members of the station staff and by visiting scientists. Many of these will be popular or semi-popular in character and will be open to the local public.

CREDIT.

The maximum amount of credit that can be earned during the session is limited to six units. Not more than two subjects can be elected by a student. The credits earned at the station may be applied towards graduation at any of the affiliated institutions.

SCHOOL OF CORRESPONDENCE-STUDY.

FACULTY.

- P. L. CAMPBELL, B. A., President of the University.
PERCY PAGET ADAMS, B. S., Assistant Professor of Civil Engineering.
JOHN FREEMAN BOVARD, M. S., Professor of Zoology.
WILLIAM PINGRY BOYNTON, Ph. D., Professor of Physics.
JULIA BURGESS, M. A., Instructor in English.
ROBERT CARLTON CLARK, Ph. D., Professor of History.
EDGAR EZEKIEL DECOU, M. S., Professor of Mathematics.
JAMES HENRY GILBERT, Ph. D., Assistant Professor of Economics.
— MOZELLE HAIR, B. A., Secretary Correspondence-Study Department.
HERBERT CROMBIE HOWE, B. A., Professor of Modern English Literature.
— HEMAN BURR LEONARD, Ph. D., Assistant Professor of Mathematics and Resident Director Correspondence-Study Department.
CARL A. MCCLAIN, B. S., Instructor in Civil Engineering.
MARY HALLOWELL PERKINS, M. A., Instructor in English.
JOSEPH SCHAFER, Ph. D., Professor of History.
MAUDE E. STINSON, B. A., Instructor in English.
ALBERT RADDIN SWEETSER, M. A., Professor of Botany.
EDWARD ALLEN THURBER, M. A., Professor of Rhetoric and English Literature.
ALBERT R. TIFFANY, B. A., Registrar of the University.
FREDERICK-GEORGE YOUNG, B. A., Professor of Economics and Sociology and Dean of the Graduate School.
FRANCIS D. CURTIS, Reader in Physics.
FORREST E. DUNTON, '12, Reader in School Administration.
CELIA V. HAGER, '12, Reader in Educational courses.
HAROLD QUIGLEY, Reader in Mathematics.
CHARLES N. REYNOLDS, '13, Reader in Mathematics.
— CARLTON E. SPENCER, '13, Stenographer.

GENERAL INFORMATION.

The constant aim of the Regents has been to make the University serve the people of the State to the fullest possible extent—to give every man a chance to get the highest education possible and at the smallest practical cost—to bring the University and the home in close touch. With this purpose in mind, the University has broadened its field as fast as its resources have permitted. The Summer Session was opened for the benefit of those who had not the time nor the means to take the work in residence during the regular session. A step of still greater importance was the establishment in 1907 of the Correspondence-Study Department. To the courses now offered, the University plans to add others as fast as its resources will permit.

FOR WHOM INTENDED.

The correspondence courses are especially intended for:

Teachers.

Students preparing for college or university.

Women's Clubs.

Teacher's Groups.

Granges.

Home makers.

Engineers.

The courses offered by the University are intended for residents of Oregon; but in a few cases those moving out of the State and those planning to come in have been extended the privileges. The broad view has been taken that those preparing for this University should be given every opportunity.

It must constantly be borne in mind that correspondence work is in truth but a substitute for resident work. How satisfactory this substitute may prove to be, depends on many circumstances. Although all subjects cannot be taught efficiently by mail, experience shows that in many subjects correspondence work is very effective. Those subjects in which much written work is required of resident students lend themselves to long distance treatment. But even a poor substitute would be considered better than nothing

at all by ambitious students, deprived of the opportunity of going to college. The Correspondence-Study Department enables those that have dropped out of high school or college to continue their studies. It appeals especially to those who for any reason must content themselves with intermittent attendance at college, to teachers in secondary schools that wish to keep up their work in their special line or that are required to teach subjects with which they are not very familiar.

PREPARATION NECESSARY.

Students may begin correspondence courses at any time. No preliminary examinations are required. Anyone may elect any course that he pleases and ability to carry the work is the sole prerequisite. The University does not guarantee results. It merely offers courses to those that are able to take them. The key to the whole situation lies in the words "those that are able to take them." The power to do when assisted is what the department stands for. Courses taken and forgotten after the credit was obtained are of little value for subsequent work.

So, few questions are asked unless the student shows himself unable to do the work without an undue amount of assistance. The labor of preparing the written work is sufficient to deter the inefficient from continuing the course. The practical result has been that not more than two per cent of those registering have persisted in sending in work that was not up to the standard and in requesting explanations of simple matters. And their very persistence was a virtue, for it arose from a desire to prepare for state examinations and correspondence showed that they were making the most of what they thought was their last and only chance.

EXPENSES.

All instruction, including the examinations, is free. The student buys his own text-book and provides the paper for his written work. He also pays the postage both ways. It has been found on the average that one dollar will pay the postage on the matter sent out for a complete course. So the student at the time of registration gives the department one dollar for each course

chosen, to prepay the postage on the matter to be sent to him. Of course the requisite stamps must be put on each separate bundle of work he sends in. The University asks no pay for the instruction. For such work, in addition to the return postage, eastern universities charge at least sixteen dollars. Oregon will probably not give its course free another year and now it makes this offer only to its citizens and in order to build up the department.

The books mentioned in the description of a course are to be bought by the student. If it is not convenient to procure them through a local dealer, send the amount mentioned to the J. K. Gill Company, Portland, Oregon, or to the Correspondence-Study Department.

REGISTRATION.

The student who wishes to undertake correspondence study, should inform the Correspondence-Study Department what course or courses he desires, enclosing at the same time the required fees for return postage, and using the blank application form at the end of the bulletin.

The Resident Director extends a cordial invitation to all interested to write to him and tell him what the applicant has done and what he wants to do and then assistance will gladly be given in the selection of suitable courses. Upon the receipt of the application form properly filled out, the instructor concerned is notified.

METHOD OF CONDUCTING COURSES.

After the student has registered for a course and has paid the fee for postage, a letter giving general instructions for doing work by correspondence is sent to him, together with the lesson-sheets for the first two lessons. To make the method clear, suppose that the course selected is Course I—Advanced Algebra—based upon the book of Hawkes. The student takes the lesson-sheet for the first lesson, which is part of a rapid review of elementary algebra, reads in the assigned sections the explanations that the book gives, and then does as many of the assigned problems as he can and mails his work. At the University his work is read, errors are indicated, explanations of difficulties asked for are written out, and helpful suggestions are returned for the

working out the problems that should have been done before. Meanwhile the student has been working ahead on the assignments of the second lesson-sheet, so unless his troubles have brought him to a full stop, no time is lost while the written work is on its way back and forth. The written work goes back accompanied by the lesson-sheet for the third lesson. He looks over his errors, studies the explanations that have been written out for him and in the light furnished thereby, tries again the problems he missed before. If there are still tangles not completely unraveled, more help is requested and the work mailed again. And thus the endless round is continued.

EXAMINATIONS.

Formal examinations are required only in case that credit is desired, but the written work assigned on a lesson-sheet must be completed to the satisfaction of the instructor before any more lesson-sheets will be sent out. In other words, a student never gets more than a couple of lesson-sheets ahead of what he has prepared properly.

Now some may be curious to learn how examinations can be given in a correspondence course. When the lesson-sheet for the lesson that precedes the test is sent out, it is accompanied by a request to the student, asking him to send in the name and address of someone willing to take the trouble to give him the test. He is urged to select a teacher, a preacher, or a college graduate that understands how such an affair should be conducted. The Department has ways of gaining information that enable it to satisfy itself about the qualifications of the one suggested. If a good selection has been made, the questions are sealed in a separate envelope and sent with a letter of instructions to the examiner. At the time of examination the student himself opens the envelope containing the questions, writes his answers, and ends with a signed statement that he has acted honestly. The examiner returns the papers with a statement that the test has been properly given.

KIND OF WORK OFFERED.

The courses offered are designed to be as nearly like the work given on the campus as it is possible for them to be. The Uni-

versity offers no shortcuts to knowledge that are not used in teaching resident students in the parallel courses. Most of the courses have some text-book as the backbone, which is more or less in evidence according to the nature of the work.

PREPARATORY COURSES OFFERED.

In pursuance of the policy of giving all possible aid to those connected with the educational system of the State, certain secondary courses are carried on for the benefit of students who can not take the work in a high school, and for teachers preparing for State examinations. The University does not give these courses to resident students and each is given the credit placed after it in the list below.

Botany	1 entrance unit.
Elementary Algebra	1½ entrance units.
Elementary Physics	1 entrance unit.
English Classics	1 entrance unit.
English Composition	1 entrance unit.
Oregon History	1 entrance unit.
Physiology	½ entrance unit.
Plane Geometry	1 entrance unit.
Solid Geometry	½ entrance unit.

Of these Botany and Oregon History may receive six college semester hours apiece when taken under proper conditions.

COLLEGE COURSES OFFERED.

The other courses that are now being given by correspondence and the credit that their satisfactory completion will give, are listed below:

A Course in Mathematics.....	15 college semester hours.
Advanced Algebra	3 college semester hours.
Analytic Geometry	4 college semester hours.
Analytical Mechanics	6 college semester hours.
Botany	6 college semester hours.
British Poets of the Nineteenth Century..	6 college semester hours.

Calculus	10	college semester hours.
Child Study	3	college semester hours.
Economics	6	college semester hours.
Educational Psychology	6	college semester hours.
Electricity and Magnetism	3	college semester hours.
English Composition	2	college semester hours.
History and Teaching of Physics.....	2	college semester hours.
Mechanical Drawing	4	college semester hours.
Money and Banking	4	college semester hours.
Oregon History	6	college semester hours.
Physical Education	2	college semester hours.
Plane Trigonometry	2	college semester hours.
Psychology	6	college semester hours.
Recent European History	6	college semester hours.
School Administration	6	college semester hours.
School Management and Art of Teaching	3	college semester hours.
Shakespeare	6	college semester hours.
Scientific Methods of Study.....	2	college semester hours.
Sociology	4	college semester hours.
Sound and Music	2	college semester hours.
Teaching of High School Mathematics....	2	college semester hours.

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

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

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.

A total of forty semester hours of college credit may be earned through the Correspondence-Study Department, *i. e.*, one-third of the amount required for the Bachelor's degree.

TEACHERS' CERTIFICATES.

The following courses are given that will aid the teacher in preparing for the State or County Teachers' examination: Botany, Physiology, Elementary Algebra, Plane Geometry, Pedagogy, and English Classics supplemented by English and American Literature based on Newcomer.

THE MASTER'S DEGREE.

One-half of the thirty semester hours of graduate work required for the Master's degree may be earned through the Correspondence-Study Department. The balance must be taken in residence in one regular semester of work. Graduate courses are not now given in the summer term.

CORRESPONDENCE.

Unless directed to use a private address by an individual instructor, send all communications to The Correspondence-Study Department, University of Oregon, Eugene, Oregon.

SCHOOL OF MUSIC.

THE FACULTY.

P. L. CAMPBELL, B. A., President.

MARY GOODBAR MORGAN, Acting Dean and Instructor in Piano.

EVE I. STINSON, B. Mus., Instructor in Voice.

—————, Instructor in Violin.

DAVID CAMPBELL, Instructor in Theory and Harmony, and Assistant Instructor in Piano.

ALBERTA CAMPBELL, Assistant Instructor in Piano.

INA WATKINS, Assistant in Piano.

ETHEL EVANS, B. Mus., Assistant in Piano..

NELL MURPHEY, B. Mus., Assistant in Piano.

LILA C. PROSSER, B. Mus., Assistant in Voice.

The Department of Music aims to provide adequate instruction to students who desire knowledge of music, and to afford a course of study for those who shall become musicians as teachers or composers.

COURSES.

The work in the department is divided into theoretical and practical. The theoretical consists of courses in harmony, theory, and history of music. Courses 1 and 5 are open to all students without previous musical training. All theoretical courses are given without fees to students registered in the University or School of Music.

1. *Elementary Theory.* Notation; tonality; intervals; study of rhythm; primary and secondary triads of major and minor keys; harmonizing of simple basses and original melodies.

One hour, two semesters.

2. *Harmony.* Continued work in the use of triads; inversion of triads; dominant seventh chord, its inversion; harmonizing of basses, given and original.

One hour, two semesters.

3. *Harmony*. Secondary sevenths with inversions; chords of the ninth, eleventh and thirteenth; altered chords. Drill in recognizing modulations; suspensions, organ point, passing and changing tones; constant applied work. Careful study of the means of modulation.

One hour, two semesters.

4. *Harmony*. Composition of numerous chorals; harmonizing of Volks-Lieder; constant practice in modulation; critical harmonic analysis of celebrated classic and modern compositions.

5. *History of Music*. Lectures are given on the development of music from its earliest stages; history of church music from time of Gregory; history of opera and oratorio; biographical sketches of famous composers, with description and analysis of their principal works; history of purely instrumental music, showing growth and development of musical forms.

One semester hour's credit.

Candidates for degree of Bachelor of Music must have completed the entrance requirements of the University before beginning the course. The course requires proficiency in theory, two years of German, two years of English, two years of literature, one year of Psychology, one year of Education, two years of French, and one year of Italian. Every student in the School of Music who is a candidate for the degree Bachelor of Music is required to take Physical Training during his freshman and sophomore years.

Practical courses are offered in Voice, Piano and Violin. These courses are elective, and open to any student who wishes to study music, whether a candidate for a degree or not. Candidates for the degree Bachelor of Arts may take music each year. College credit of two semester hours is given. All students in piano are required to take the theoretical course, unless permission to omit such work is given by the Dean of the School of Music.

Candidates for degree of Bachelor of Music must have a one hour lesson a week in the practical subject of the department. Major work in piano requires two years of voice training, also training in teaching under supervision of head of the department, as well as ability to appear as soloist.

Upon entrance to the four years of piano work offered in the University, the candidate for the degree Bachelor of Music should

be able to play major and minor scales, correctly; studies from Czerny op. 299; Cramer, Books I or II; Berens op. 61; easier sonatas of Mozart; Haydn, Reinecke, Sonatinas op. 47; Krause Sonata op. 3; Little Preludes and Fugues of Bach; easier Mendelssohn songs; and pieces by modern writers of same grades.

Candidates for degree of Bachelor of Music with Voice as major subject are required to complete two years of Piano, one-half hour weekly; and one hour weekly in Voice training, sight singing, and to have the ability to appear as soloist.

In entrance to four years of Voice work offered in the University, the candidate for the degree of Bachelor of Music should have a knowledge of notation, tonality, intervals and rhythm, and should be able to sing studies from Abt, Concone Op. 9, Panofka Op. 85, or their equivalent.

The instructor in Violin for 1912-13 has not been definitely determined upon, but the School of Music is planning on an excellent department and the best possible talent is to be secured. Information may be had in the near future by addressing the Dean of the School of Music.

PREPARATORY COURSES.

In Voice, Piano, and Violin courses are offered from the beginning of music study for the benefit of those who have had no work or have had comparatively little.

RECITALS.

After January first, practice recitals are given twice a month, giving every student an opportunity to play and incidentally affording him a larger knowledge of musical literature in all grades. Public recitals are given at the close of the first semester, and at the close of the school year.

FEEES FOR INSTRUCTION IN MUSIC.

Fees for work in the School of Music must be paid to the Steward of the University in advance. For first semester, on or before October 15th; for second semester, on or before March 15th.

TUITION.

SEMESTER OF EIGHTEEN WEEKS.

Two lessons per week—			<i>Half hour</i>	<i>Hour</i>
	VOICE.		<i>Lessons</i>	<i>Lessons</i>
Miss Stinson		\$45.00		\$90.00
Miss Prosser		35.00		70.00

PIANOFORTE.

Miss Morgan or Mr. Campbell.....	45.00	90.00
Miss Watkins	35.00	70.00
Miss Campbell	35.00	70.00
Miss Murphey	35.00	70.00
Miss Evans	35.00	70.00

VIOLIN.

.....	45.00	90.00
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One lesson per week—			<i>Half hour</i>	<i>Hour</i>
	VOICE.		<i>Lessons</i>	<i>Lessons</i>
Miss Stinson		\$25.00		\$45.00
Miss Prosser		18.50		35.00

PIANOFORTE.

Miss Morgan or Mr. Campbell	25.00	45.00
Assistant Instructors	18.50	35.00

VIOLIN.

.....	25.00	45.00
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ADDITIONAL EXPENSES.

Pianos may be rented at rates of from \$4.00 to \$6.00 per month. A limited number of practice hours are given on pianos in the School at the rate of \$4.00 a semester for one hour's practice daily.

Information in regard to living and incidental expenses may be secured from the Registrar of the University.

SUMMER SCHOOL COURSES.

Courses in Music are offered in the Summer School to teachers and students of Music. Courses planned especially for teachers and supervisors of public school music, such as the following, are offered: Sight Singing, Theory and Practice of Teaching, History of Music, Ear Training and Harmony, and a Normal Training Course for piano teachers, three hours daily,—one hour of ear training and harmony, one hour technic, and one hour of dictation,—with demonstrations in classes of several children. Private lessons in piano and voice are also given. For further information see Summer School Bulletin.

SCHOOL OF LAW.

FACULTY.

P. L. CAMPBELL, B. A., President.

CALVIN U. GANTENBEIN, LL. B., Dean and Lecturer on Criminal Law and Evidence.

WILLIAM B. GILBERT, LL. D., Lecturer on Constitutional Law.

CHARLES E. WOLVERTON, A. B., LL. D., Lecturer on Federal Procedure.

JOHN B. CLELAND, LL. B., Lecturer on Sales and Non-Contract Law.

HENRY H. NORTHUP, LL. B., Lecturer on Pleading, Practice, and Probate Law.

WALTER H. EVANS, B. S., LL. B., Lecturer on Contracts and Negotiable Instruments.

FRANCIS D. CHAMBERLAIN, A. B., LL. B., Lecturer on Corporations and Partnership.

ARTHUR L. VEAZIE, A. M., LL. B., Lecturer on Real Property.

BENJAMIN B. BEEKMAN, A. B., LL. B., Lecturer on Agency.

THOMAS G. GREENE, LL. B., Lecturer on Bankruptcy.

OTTO J. KRAEMER, LL. B., Lecturer on Justices' Court Practice.

CLYDE B. AITCHISON, B. S., Lecturer on Water Rights.

THOMAS O'DAY, LL. B., Lecturer on Bailments and Carriers.

RICHARD WARD MONTAGUE, Ph. B., LL. B., Lecturer on Equity.

EARL C. BRONAUGH, A. M., LL. B., Lecturer on Domestic Relations.

ROBERT G. MORROW, Ph. B., Lecturer on Brief-Making and Supreme Court Practice.

T. WALTER GILLARD, Secretary.

LOCATION.

The Law School 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 Courts of the United States 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 in the Central Building in the heart of the City of Portland. Each lecture with the accompanying recitation lasts about one hour. Lectures in the first year are on Mondays, Wednesdays and Fridays at 7:15 P. M.; in the second year, on Tuesdays, Thursdays and Saturdays at 7:15 P. M.; and in the third year on Mondays, Wednesdays and Fridays at 8:30 P. M.

The twenty-eighth session opens Monday, September 16, 1912.

The twenty-ninth session opens Monday, September 16, 1911.

The fact that the lectures and other exercises take place 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, to the second year class at least nineteen years of age, and to the third year class at least twenty 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 Secretary of the Department evidence that he comes within some one of the classes named, which should be in a form of a diploma or certificate, or a certified copy thereof.

At the close of each year students are examined on the subjects pursued during the year, and are not permitted to enter the next higher class unless they attain a general average of seventy per cent on all subjects included in the year.

COURSE OF INSTRUCTION.

The course of instruction extends through a period of three years of nine months each.

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 secretary are connected with the best law offices of the city, where they may 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 394 graduates of the Department of Law only three 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.

DEBATES.

Annual debates are held with the other law schools of the Coast. Tryouts are held to select two teams.

COMMENCEMENT.

Commencement exercises are held in Portland in May of each year. Addresses are given by the President of the University, by invited guests, and by members of graduating class.

FIRST YEAR.

FIRST TERM.

Criminal Law.—Clark's Criminal Law. Criminal Code of Oregon. Twenty lectures. Dean Gantenbein.

Domestic Relations.—Tiffany's Persons and Domestic Relations. Bellinger and Cotton's Codes of Oregon, Title XLII. Ten lectures. Judge Bronaugh.

SECOND TERM.

Contracts.—Clark on Contracts. General Laws of Oregon. Twenty lectures. Mr. Evans.

Agency.—Tiffany on Agency. General Laws of Oregon. Ten lectures. Mr. Beekman.

THIRD TERM.

Partnership.—Schumaker on Partnership. General Laws of Oregon. Ten lectures. Mr. Chamberlain.

Sales.—Burdick on Sales. General Laws of Oregon. Ten lectures. Judge Cleland.

Bailments and Carriers.—Hale on Bailments and Carriers. General Laws of Oregon. Ten lectures. Judge O'Day.

SECOND YEAR.

FIRST TERM.

Real Property.—Minor and Wurts on Real Property. General Laws of Oregon. Thirty lectures. Mr. Veazie.

SECOND TERM.

Torts.—Cooley on Torts. General Laws of Oregon. Twenty lectures. Judge Cleland.

Negotiable Instruments.—Norton on Bills and Notes. Bellinger and Cotton's Codes of Oregon, Sections 4403-4594, inclusive. Ten lectures. Mr. Evans.

THIRD TERM.

Equity Jurisprudence.—Fetter or Bisham on Equity. Bellinger and Cotton's Codes of Oregon, Title VI. Twenty lectures.

Mr. Montague.

Corporations.—Clark on Corporations. Bellinger and Cotton's Codes of Oregon, Title XLI. Ten lectures. Mr. Chamberlain.

THIRD YEAR.

FIRST TERM.

Pleading, Practice and Probate Law.—Gould on Pleading. Bellinger and Cotton's Codes of Oregon, Titles I-V, inclusive, Titles VII and VIII, and Title XVI. Thirty lectures.

Judge Northrup.

SECOND TERM.

Constitutional Law.—Black's Constitutional Law. Twelve Lectures.

Judge Gilbert.

Justice's Court Practice.—Bellinger's and Cotton's Codes of Oregon, Title XX. Five lectures.

Mr. Kraemer.

Brief Making and Supreme Court Practice.—Five lectures.

Judge Morrow.

Bankruptcy.—Five lectures.

Mr. Greene.

Water Rights.—Three lectures.

Mr. Aitchison.

THIRD TERM.

Federal Procedure.—Hughes' Federal Procedure. Ten lectures.

Judge Wolverton.

Evidence.—Hughes on Evidence. Bellinger and Cotton's Codes of Oregon, Titles IX-XI, inclusive. Twenty lectures.

Dean Gantenbein.

EXTRACT FROM REPORT OF COMMITTEE ON LEGAL EDUCATION
AND ADMISSION TO THE BAR, 1907.

"To the President of the Oregon Bar Association:

In reference to legal education within the State, your Committee notes with satisfaction that the Law School of the Uni-

versity of Oregon, under the management of Hon. C. U. Gantenbein, has within the last year extended its course, so that now three years are required for graduation, thus placing the school more nearly on an equality with schools of legal education in Eastern States. The faculty has also been materially increased and strengthened, and your Committee is of the opinion that the education now offered by this institution is thorough and scientific, and is fully adequate to the needs of the State."

LIBRARY.

The only books with which students are required to provide themselves are those used for purposes of text-book instruction, but they are advised to secure a copy of Bellinger and Cotton's Codes of Oregon in two volumes, as frequent reference is made to the Oregon statutes in connection with the instruction on all the subjects of the course.

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 by each student will cost, for new copies of the latest edition, as follows:

FIRST YEAR.

Clark's Criminal Law, Second Edition.....	\$ 3.50
Tiffany's Persons and Domestic Relations, First Edition.....	3.50
Clark on Contracts, Second Edition.....	3.50
Tiffany an Agency, First Edition	3.50
Schumaker on Partnership, First Edition	3.50
Burdick on Sales, Second Edition	3.50
Hale on Bailments and Carriers, First Edition.....	3.50

\$24.50

SECOND YEAR.

Minor and Wurtz on Real Property.....	\$ 5.00
Cooley on Torts, Students' Edition, 1907	5.00
Norton on Bills and Notes, Third Edition.....	3.50
Fetter on Equity, First Edition	3.50
Clark on Corporations, Second Edition.....	3.50
	\$20.50

THIRD YEAR.

Gould on Pleading, Hamilton's Edition.....	\$ 4.00
Black's Constitutional Law, Second Edition	3.50
Hughes' Federal Procedure, First Edition	3.50
Hughes on Evidence, Third Impression, 1907	4.00
	\$15.00

The books required by each student may be purchased from Geo. A. Bateson & Company, Commercial Club Bldg., Portland, Oregon.

DEGREE.

The degree of Bachelor of Laws will be conferred upon such students as pursue the full course of three years and pass the required written examinations. Students who have attended another approved law school for a period equal to one or two years of the course of this school of law will be given due credit for such attendance.

The diploma given to graduates is that of the University of Oregon, 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 first, seventy-five dollars for the second, and seventy-five dollars for the third year. The tuition is payable in advance at the office of the Secretary in three equal installments on or before the first day of each term. 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 failure to begin at the opening of the year. The final examination fee upon completing the whole course of study, is ten dollars, payable on or before May 1, 1913.

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 Secretary, 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.

Applications for admission and requests for further information will be addressed to

T. WALTER GILLARD, Secretary,
214 Central Bldg.,
Portland, Oregon.

SCHOOL OF MEDICINE.**FACULTY.**

- P. L. CAMPBELL, B. A., President of the University.
- HENRY E. JONES, M. D., Emeritus Professor of Clinical Gynecology.
- WILLIAM JONES, M. D., Emeritus Professor of Clinical Surgery.
- GEORGE MILTON WELLS, M. D., Emeritus Professor of Pediatrics.
- ANDREW JACKSON GIESY, M. D., Emeritus Professor of Gynecology.
- SIMEON EDWARD JOSEPHI, M. D., Dean of the Faculty; Professor of Obstetrics and Nervous Diseases.
- OTTO SALY BINSWANGER, Ph. D., M. D., Professor of Chemistry and Toxicology.
- KENNETH ALEXANDER J. MACKENZIE, M. D., C. M., L. R. C. P. and L. R. C. S., Edin., Professor of Operative and Clinical Surgery.
- RICHARD NUNN, A. B., B. Ch. M. D., Professor of Diseases of Eye, Ear, Nose and Throat.
- JAMES FRANCIS BELL, M. D., L. R. C. P., London, Professor of Theory and Practice of Medicine.
- GEORGE FLANDERS WILSON, M. D., Professor of Principles and Practice of Surgery and Clinical Surgery.
- ERNEST FANNING TUCKER, A. B., M. D., Professor of Gynecology.
- EDMOND JOHN LABBE, M. D., Professor of Pediatrics.
- GEORGE BURNSIDE STORY, M. D., Adjunct Professor of Obstetrics.
- ALBERT EDWARD MACKAY, M. D., Professor of Genito-Urinary Diseases.
- JAMES CULLEN ZAN, M. D., Adjunct Professor of Clinical Surgery.
- ROBERT CLARK YENNEY, M. D., Professor of Clinical Medicine.
- JOHN DICE MACLAREN, M. S., M. D., Professor of Physiology.
- DAVID NATHANIEL ROBERG, M. D., Professor of Pathology and Histology.
- RICHARD BENJAMIN DILLEHUNT, B. S., M. D., Professor of Anatomy.
- FRANKLIN CHAMBERS MCLEAN, B. S., M. D., Professor of Materia Medica and Pharmacology.

SPECIAL LECTURERS.

- CALVIN WHITE, M. D., Lecturer on Hygiene.
JAMES OSCAR WILEY, M. D., Lecturer on Physical Diagnosis.
J. ALLEN GILBERT, Ph. D., M. D., Lecturer on Clinical Medicine.
RALPH CHARLES MATSON, M. D., Lecturer on Bacteriology.
RALPH WALKER, M. D., Lecturer on Electro-Therapeutics.
FRANK M. TAYLOR, A. B., M. D., Lecturer on Dietetics, etc.
J. C. ELLIOTT KING, A. B., M. D., Lecturer on Dermatology.
OTIS BUCKMINSTER WIGHT, A. B., M. D., Lecturer on Gynecology.
WILLIAM HOUSE, M. D., Lecturer on Medical Jurisprudence.
GEORGE F. KOEHLER, M. D., Lecturer on Diseases of Stomach and Intestines.
ALVIN W. BAIRD, M. D., Lecturer on Principles and Practice of Surgery.
C. J. MCCUSKER, M. D., Lecturer on Hematology.
GEO. NORMAN PEASE, M. D., Lecturer on Operative Surgery.
OTIS F. AKIN, M. D., Lecturer on Orthopedic Surgery.
FRED ZIEGLER, M. D., Lecturer on Minor Surgery.

CLINICAL LECTURERS, MULTNOMAH COUNTY
HOSPITAL.

- GEORGE SHATTUCK WHITESIDE, M. D., Genito-Urinary Diseases.
RALPH A. FENTON, M. D., Ophthalmology and Oto-Laryngology.
RALPH C. MATSON, M. D., Tuberculosis and Vaccine Therapy.
ROBERT H. ELLIS, M. D., Obstetrics.
R. C. YENNEY, M. D., Internal Medicine.
J. C. ELIOT KING, Dermatology.

LABORATORY DEMONSTRATORS.

- OTIS F. AKIN, M. D., Demonstrator of Anatomy.
C. J. MCCUSKER, M. D., Demonstrator of Anatomy.
THEODORE FESSLER, M. D., Laboratory Demonstrator of Chemistry.
A. N. CREADICK, M. D., Laboratory Demonstrator of Pathology.
MARIUS BRECKENRIDGE MARCELLUS, B. S., M. D., Laboratory Demonstrator of Pathology.
MARY V. MADIGAN, M. D., Laboratory Demonstrator of Physiology.
GEORGE ANDREW CATHEY, M. D., Laboratory Demonstrator of Bacteriology.

CLINICAL ATTENDANTS, FREE DISPENSARY.

In affiliation with People's Institute, Men's Resort and Visiting Nurses' Association, Fourth and Burnside Streets.

K. A. J. Mackenzie, M. D., Chief of Staff.

Internal Medicine—Geo. F. Kœhler, M. D.; Donald Jessop, M. D.; G. N. Pease, M. D.; Otis F. Akin, M. D.; N. W. Jones, M. D.; F. C. McLean, M. D.

Surgery—A. W. Baird, M. D.; C. J. McCusker, M. D.; G. S. Whiteside, M. D.

Eye, Ear, Nose and Throat—G. French, M. D., F. A. Kiehle, M. D.

Obstetrics and Gynecology—Mary MacLachlan, M. D.; R. H. Ellis, M. D.

Pediatrics—E. J. Labbe, M. D.; J. Bilderback, M. D.

Tuberculosis—R. C. Matson, M. D.; R. W. Matson, M. D.

ANNOUNCEMENT.

The Medical Department of the University of Oregon was established in 1887 by charter from the Regents of the University and is actually and not only nominally an integral part of the University. While it has a local government, through its medical faculty, it is under the control of the Regents to whom it is responsible, in both scholastic and financial matters.

It is a graded school, requiring from its students as a condition of graduation, attendance upon four full courses of lectures (of at least eight months each) in a recognized medical college.

With the session of 1910-1911 the added requirement of at least one year of university work in Chemistry, Biology, Physics and one modern foreign language went into effect. Particulars as to this as well as other information regarding entrance credits, credentials, etc., may be found under the head "Requirements for Admission."

Applicants for matriculation must procure credentials for admission from authorized sources outside this faculty. No entrance examinations will be held by any member of the medical faculty.

The opening lecture of the twenty-sixth regular annual session will be delivered at 8 A. M., Monday, October 7, 1912. 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. Attendance upon lectures is obligatory in accordance with the rules laid down by the faculty and set forth in this catalogue.

Special examinations will be held beginning September 13, under the rules, for advancement to second, third, or fourth year standing for those entitled to re-examination, who failed to take the examinations or to attain the requisite number of credits in the Spring. Students who wish to take the Fall examinations must make application to the Dean previously and present themselves at the appointed time.

LOCATION.

The college building, located corner Twenty-third and Lovejoy Streets, opposite Good Samaritan Hospital, is furnished with the aids to medical education which modern advancement requires. Laboratories for chemical, histological, pathological, bacteriological, physiological and pharmacological work are provided, and arrangements made for special attention to these important practical departments. The laboratory equipment in all departments is now very complete, legislative appropriation for this purpose having afforded means to purchase. The dissecting laboratory is most conveniently arranged, is light and airy and is furnished with artificial stone tables and electric fixtures for illumination. Valuable additions to the laboratory apparatus are being constantly made to keep pace with advanced methods of instruction. The lecture halls include a commodious amphitheatre.

The building is heated by hot water and is lighted by gas and electricity. 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 Hospital is only a short distance from the college and with Good Samaritan Hospital across the street the arrangement of college and hospitals for clinical work is a most convenient one.

HOSPITAL CLINICS.

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

Our connection, through members of the faculty, with St. Vincent's, Good Samaritan and Multnomah County hospitals, is such as to afford the most enlarged advantages for clinical instruction in the wards and operating rooms of those institutions, members of the staff of each being also members of the college teaching corps.

St. Vincent's Hospital is located only a few blocks from the college building on a tract of five acres. It contains 500 beds and is admirably fitted, in other respects, with the most modern furnishings and appliances including six operating rooms in one of which is a commodious amphitheatre.

Good Samaritan Hospital is located just opposite the college building. It has recently added a large brick centre building and wing (representing an outlay of \$200,000.00) which with the portion of the older building still remaining contains 250 beds. A new operating room and amphitheatre, with the most modern equipment, affords fine clinical facilities.

These hospitals, with the Multnomah County Hospital, the location of which has been changed from the Canyon Road to Second and Hooker Streets in the city, where it is easily reached by street cars, are rich in clinical material of all kinds, and afford opportunities for clinical work and instruction unequaled anywhere in the Northwest.

The close proximity of two of them to the college clusters the buildings for both didactic and clinical instruction, so as to make the facilities very convenient.

Clinics are held every day of each week during the session. Opportunities are given students to make diagnosis of disease and prescribe treatment therefor. Operations of endless variety are performed (in presence of the class), according to the most advanced methods of modern surgery. Students are detailed as assistants in many of these.

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. "Clinic Conferences" in both Medicine and surgery have proved very beneficial to the students.

Dispensary clinics will be held daily at the out-patient department, Burnside and Fourth Streets, where a well organized free dispensary is conducted by this school in affiliation with the People's Institute, Men's Resort and Visiting Nurse's Association.

For attendance upon these dispensary clinics, Juniors and Seniors are apportioned in sections so as to interfere as little as practicable with their other work.

Obstetrical clinics are held during the senior year. Each senior student will be given an opportunity to attend and conduct, under proper supervision, cases of mid-wifery. This affords undergraduates a practical knowledge of mid-wifery, which must prove of great value in their future professional work. An out-patient obstetrical service has been established to which seniors will be detailed under supervision.

The hospitals already established and in successful operation for many years present excellent facilities for the study of diseases 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 to be found in much larger cities.

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

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 laboratory courses will include a large amount of practical work by the students in histology, pathology, bacteriology, physi-

ology, materia medica, therapeutics and electro-therapeutics. Such work being under the personal direction of laboratory demonstrators.

Reference to the plan of lectures will indicate the time which will be devoted to this work.

Much attention is given to the "quiz" or recitation feature of the didactic lectures. Under our system, markings for recitations throughout the session are considered in marking the percentage on final examinations.

DEPARTMENTS.

CHEMISTRY AND TOXICOLOGY.

During the first and second years Prof. 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 urinalysis and other chemical examinations. A course of practical laboratory work by students is an essential of the requirements. Both Freshmen and Sophomores will do laboratory work. Dr. Theo. Fessler will demonstrate in the laboratory for Freshmen.

MATERIA MEDICA AND PHARMACOLOGY.

Prof. F. C. McLean devotes his entire time to the school. He will direct attention during the first and second years to remedial agents and to the actions of medicines proper, with particular reference to their practical application. Specimens of the various medicines will be exhibited to the class and laboratory work in Materia Medica and Pharmacology will be given in an intensive course. Electro-therapeutics, will be given both didactically and clinically by Dr. Ralph Walker. Dietetics will be treated by Dr. Taylor.

PHYSIOLOGY.

Lectures upon this subject will be delivered during first and second years by Acting Professor John D. MacLaren, who will

devote his entire time to the School of Physiology. These lectures will be illustrated by demonstrators and laboratory methods which will occupy a prominent place. Embryology will be fully covered in this course. His course on Physiological Chemistry is a valuable addition.

ANATOMY.

Professor Richard B. Dillehunt, also a salaried instructor who will devote his entire time to the subject, will give instruction in General and Descriptive Anatomy and Embryology. These subjects will be considered during first and second years and finished at the end of the second year. The lectures and recitations will be illustrated by actual dissections, charts, drawings and models, and special attention will be given to the surgical relations of the subject. During the first year a special course on Osteology and Syndesmology will be completed.

Dissecting material is abundant, so that no shortage need be apprehended, arrangements being already in practice for storage of material during the summer months.

Demonstrators will be on duty daily (except Saturday) as per schedule of lectures, and attention will be given to dissections during first and second years.

HYGIENE.

Dr. Calvin White will deliver a course on Hygiene during the first and second years. The subject will be treated from a practical standpoint. Preventive medicine and sanitary science will receive the attention they so well deserve.

EMBRYOLOGY.

Embryology will be treated in the lectures of Profs. Dillehunt, Tucker and Story; the first giving laboratory demonstrations.

MICROSCOPY AND HISTOLOGY.

Professor Roberg will deliver a practical course on the use of the microscope and histology and will demonstrate the technique of this work during the first year. The new laboratories are fully

equipped and afford excellent opportunities for thorough laboratory work by the students, who will make their own mountings, under proper supervision, for permanent preservation.

PATHOLOGY.

This course includes the study of microscopical examinations of pus, blood, urine, tumors and other tissue structures, etc., and post mortem work and medical zoology.

Pathology is taught by Prof. Roberg in the Sophomore and Junior years. In the Sophomore year, two hours each week for ten weeks are devoted to laboratory work. During the first and greater portion of the second semester, the Sophomores attend two didactic lectures each week, until the subject of general pathology has been covered.

Drs. Marcellus, Creadick and Smith will demonstrate technique in the laboratory.

The Junior class attends two didactic lectures each week throughout the entire year. General pathology is reviewed, the remaining time being given to special pathology. During the Junior year two hours each week is devoted to laboratory work, which includes examination of microscopical sections, gross pathological specimens and post mortems.

Everything is done to make the course as practical as possible and to give the students a thorough working knowledge of the subject.

OBSTETRICS.

This subject will be taught during second, third, and fourth years. Profs. Josephi and Story will illustrate the lectures upon this branch by manikins, charts, diagrams, specimens, clinical work in the hospital maternity wards and out-patient cases. All the principal obstetric operations will be demonstrated and members of the class will be required to perform operations and instrumental applications on the manikin before the class. Fourth year students will receive instruction by clinical methods and labor cases in hospital and out-patient service will be entrusted to individual members of the senior class under proper direction, thus insuring an eminently practical knowledge of this important branch.

BACTERIOLOGY.

Dr. Ralph C. Matson will deliver practical lectures with laboratory work on Bacteriology to third year students.

The Bacteriological Laboratory is supplied with all the necessary apparatus and material for a very full course.

Each student will receive instruction in Bacteriological technique including best methods of examining sputum, staining, etc., culture media and their preparation, and different bacteria will be cultivated and studied, such as those of Typhoid, Diphtheria, Cholera, Tubercle, etc. Dr. Ralph Matson will also give demonstrations in Clinical Microscopy. Dr. G. A. Cathey will assist in demonstrating the subject.

DERMATOLOGY AND SYPHILIS.

Dr. J. C. E. King will deliver lectures on Dermatology and Syphilis during the third year. The exhibition of illustrative cases and clinics at Multnomah County Hospital will form a prominent feature. Dr. Whiteside will conduct a clinic in the out-patient department and cases will also be shown at County Hospital.

GYNECOLOGY.

This branch will be taught during third and fourth years by Prof. Tucker, by lectures and case-taking experiences. Practical instruction will be given in manual and instrumental examinations and operations for the diagnosis and treatment of diseases peculiar to women. Clinics will be held at Free Dispensary and hospitals. Dr. Wright will assist Prof. Tucker in the presentation of this subject.

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 to assist in operations and for practice in minor surgery, bandaging, etc. All the usual surgical operations will be demonstrated on the cadaver in the college amphitheatre in a special course by Dr. G. N. Pease.

Prof. Geo. F. Wilson will give his attention chiefly to fractures and bone lesions. Dr. Baird will call attention to Principles and Practice of Surgery; Dr. Akin to Orthopedic Surgery, and Prof. Tucker to Abdominal Surgery in his course on Gynecology.

A special practical course will be given in explanation and demonstration of the X-ray in the diagnosis and treatment of disease by Dr. Walker.

Clinics in Surgery will also be given by Prof. K. A. J. Mackenzie, Prof. Geo. F. Wilson, Dr. Ziegler and the County Hospital and Free Dispensary staff. Prof. Mackenzie will deliver a clinical course upon Operative Surgery and Prof. Wilson will give special attention to clinics on dislocations, fractures and fracture apparatus. Dr. Ziegler will give special attention to minor surgery and the details of dressings, bandages, etc.

THEORY AND PRACTICE OF MEDICINE.

During the third and fourth years, as per outline, Prof. Bell 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 hospitals and Free Dispensary. Prof. Labbe will deliver lectures upon diseases of children. Prof. Josephi upon Insanity and Diseases of the Nervous System. Dr. Wheeler upon Hygiene and Dr. J. O. C. Wiley upon Physical Diagnosis. Prof. Bell and Dr. J. A. Gilbert and the County Hospital Staff will hold medical clinics at St. Vincent's and County Hospitals. Dispensary clinics will be conducted daily at the Free Dispensary, Fourth and Burnside Streets, by the dispensary staff. Dr. Koehler will give a special course on diseases of stomach and intestines with practical demonstration of methods of examination.

Other special clinics will be held as announced from time to time during the progress of the course.

GENITO-URINARY DISEASES.

Prof. Mackay will, in addition to clinics on Genito-Urinary Surgery at the Good Samaritan Hospital, give instruction in Genito-Urinary Diseases and Syphilis, illustrated by preparation, models, drawings and lantern. The different types of urethrosopes, and cystoscopes will be shown and explained and the commendable modern instruments will be used in the clinics as opportunities are presented. Clinics also at Dispensary and County Hospital by Dr. Whiteside.

PHYSICAL DIAGNOSIS.

Dr. J. O. C. Wiley will give special instruction on this important subject, giving prominence to topographical examinations, exemplary sounds, etc., using clinical material for demonstrations. Clinics at hospitals.

DISEASES OF THE NERVOUS SYSTEM.

Lectures on Nervous Diseases including Insanity will be delivered by Prof. Josephi during third and fourth years. In this course special Nervous Diseases not included in the lectures of others will be dwelt upon. Clinics at hospitals and out-patient department.

OPHTHALMOLOGY, OTOTOLOGY, RHINOLOGY, AND LARYNGOLOGY.

Prof. 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 diseases of the parts involved. Practical clinical training in these branches and in the use of the ophthalmoscope, specula, laryngoscope and instruments for local applications, will be given. Clinics in Good Samaritan Hospital by Dr. Nunn; at County Hospital by Dr. Ralph Fenton and at Free Dispensary by Dr. Kiehle.

PEDIATRICS.

Prof. E. J. Labbe will bring before the students during fourth year a full consideration of the disorders incident to infancy and childhood. The subjects of infant feeding and prophylaxis will receive proper attention.

MEDICAL JURISPRUDENCE.

Dr. Wm. House will deliver lectures, embracing the more essential points of this interesting branch of medicine during the third and fourth years.

MICROSCOPES.

All laboratory students will be required to furnish themselves with microscopes. To those not possessing instruments the college will rent a microscope at a rental charge for the session of \$5.00 against each student, payable in advance. The student to whom the instrument is rented will be held responsible for its return in good order.

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 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.

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

The following is an outline of the work:

FRESHMAN YEAR.

Anatomy, with dissections.

General Chemistry, with laboratory work.

Materia Medica and Pharmacy, with laboratory work.

Physiology, with laboratory work.

Microscopy and Histology, with laboratory work.

Hygiene and Public Health.

Embryology.

Dietetics.

Examinations at the end of the year in Osteology and Sydesmology, Histology, Principles of Chemistry, Elementary Materia Medica, Physiology (Prox. Principles, the Blood and Digestion) Embryology.

SOPHOMORE YEAR.

Anatomy, with dissections; finished.
General Pathology, with laboratory work.
Physiology, with laboratory work; finished.
Embryology, with laboratory work.
Chemistry, with laboratory work; finished.
Materia Medica, Pharmacology and Therapeutics; finished.
Hygiene and Public Health; finished.
Obstetrics (Pelvic Anatomy, Embryology and Normal Labor).
Dietetics.

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

JUNIOR YEAR.

Theory and Practice of Medicine.
General Therapeutics.
Principles and Practice of Surgery and Bandaging.
Pathology, with laboratory work.
Bacteriology, with laboratory work.
Pediatrics.
Ophthalmology and Otology.
Dermatology.
Obstetrics.
Gynecology.
Medical Jurisprudence.
Genito-Urinary Diseases.

Nervous Diseases.
Physical Diagnosis.
Clinics.

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

SENIOR YEAR.

Medical Jurisprudence.
Theory and Practice of Medicine.
Principles and Practice of Surgery.
Military and Operative Surgery.
Clinics all.
Gynecology.
Genito-Urinary Diseases.
Ophthalmology and Otology.
Obstetrics, Clinics.
Rhinology and Laryngology.
Pediatrics.
Insanity and Diseases of Nervous System.
Examinations: Final in above.

TEXT BOOKS.

The following list of books is given as a guide to the student (latest editions preferred):

FOR STUDY		FOR REFERENCE
Anatomy.....	Gray.	Morris, Cunningham.
Physiology.....	Howell.	American Text-Book.
	{ Withaus.	
	{ Hill.	
Chemistry.....	{ Purdy Pract.	Bartley, Sadtler and Trimble.
	{ Urinalysis, etc.	
Materia Medica.....	{ White & Wilcox	Butler, Shoemaker, Sollman.
	{ Wharton &	International Text-Book.
Surgery.....	{ Curtls.	Senn's Principles of Surgery, DaCosta
	{ Bickham's Text-Book of Operative Surgery, Binney.	
	{ Forcheimer on Treatment.	
Theory and Practice.....	{ Anders, Tyson,	
	{ Osler, Edwards.	
Diagnosis.....	{ Cabot	DaCosta.
Obstetrics.....	{ Hirst or	
	{ Williams.	
Diseases of Children.....	{ Fischer Ruhrah	Holt, Koplik, Cotton.
Gynæcology.....	{ Dudley.	Montgomery, Hirst, Ashton, Penrose
Ophthalmology.....	{ Swanzy.	Noyes, Buck, Fuchs.
Otology Laryn- gology.....	{ Bishop's Dis. of	
	{ Ear, Nose and	
	{ Throat.	
Histology.....	{ Ferguson	Stohr, Bohm, David, Piersol.
Pathology.....	{ Stengel.	Mallory & Wright.
Der.matology.....	{ Stalwagon.	Kaposi, Crocker, Hyde & Montgomery
Toxicology.....	{ Taylor.	
Orthopædic surgery.....	{ Sayre.	
Nervous diseases and Insanity.....	{ Church & Peter- son.	Gowers, Dana, Krafft-Ebing.
Genito-Urinary Diseases.....	{ Keyes,	White & Marten, Taylor.
	{ Lydston.	
Medical Jurispru- dence.....	{ F. W. Draper	A. N. Taylor, Wharton and Stille.
Hygiene.....	{ Bergey.	
Bacteriology.....	{ Muir & Ritchie.	Abbott, Levy & Klemperer, McFarland
Electro-Therapeutics.....	{ A. D. Rockwell.	Medical and Surgical Electricity.
	{ Friedenwald & Ruhrah	
Dietetics.....	{ Diet in Health.	
Embryology.....	{ Balfour, McMurek, Minot.	
Medical Dictionary.		

Cost of books varies according to subjects; binding, etc. As the inquiry is often made it may be stated here that the average cost is for Freshmen, \$35.00. Sophomores having the Freshmen books, \$13.00. Juniors, \$35.00. Seniors having the Junior books, \$12.00.

HOSPITAL APPOINTMENTS.

The college recommends for eight appointments each year of house surgeons, five to the Good Samaritan Hospital, three to St. Vincent's Hospital, both in Portland. Information regarding these appointments will be furnished by the Dean on application. 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 round out the college course by acquiring in the wards of a well equipped hospital, without any expense, practical knowledge by clinical experience and actual practice.

PRIZES.

SAYLOR MEDAL.

The Saylor Gold Medal founded by the late Prof. Saylor and now maintained by the Faculty, will be awarded to the graduate who shall have obtained the highest total of credits for the four years' work (whether taken in regular sequence or not). Provided: Credits in medical subjects shall have been obtained in some department or departments of the University of Oregon, and the student's mark in his first examination in any subject or part of a subject (whether or not he passes the subject at that examination) shall be the mark considered in making up his total in competition for the medal.

THE ANATOMY MEDAL.

The Anatomy Gold Medal will be awarded to the undergraduate who obtains the highest total mark in Anatomy in final examination in that branch. This mark is the total of Osteology, Histology and Anatomy, including dissections. Provided such mark is obtained in the University of Oregon under conditions similar to those governing the Saylor Medal. The medal will be presented to the winner only at the time of graduation from this college.

REQUIREMENTS FOR ADMISSION.

1. (a) A bachelor's degree from an approved college or university, including at least one year's work in Physics, Chemistry, Biology, and a modern foreign language; or else

(b) A certificate from a university or college that applicant has satisfactorily passed examination covering one year's work of nine months (as taught in a university) in the subjects of Physics, Chemistry, Biology, and a modern foreign language (preferably German); in addition to a diploma from an accredited high school, normal school or academy requiring for admission evidence of the completion of an 8-year course in primary and intermediate grades, and for graduation not less than four years of study embracing not less than two years (4 points) of foreign language, of which one must be Latin, two years (4 points) of mathematics, two years (4 points) of English, one year (2 points) of history, two years (4 points) of laboratory science, and six years (12 points) of further credit in language, literature, history or science;

(c) A certificate from a recognized examiner (a recognized examiner being one approved and acceptable to the State or city superintendent of public instruction) or from any State board of medical examiners duly authorized by law, that applicant has satisfactorily passed examinations in subjects sufficient to cover 30 points of high school or academic work (one such point in any subject demands not less than what is covered in five periods per week of forty-five minutes each for eighteen weeks) together with the certificate named in division (b) above from a university or college for one year of work in the subjects stated.

Of the 30 points referred to above in division (c) 20 points must be as follows: Mathematics (4 points); English (4 points); History (4 points); Language (2 must be Latin), 4 points; Science (taken from physics, chemistry, botany, zoology), 4 points.

The other 10 points may be supplied from the following in addition to what is set forth for the compulsory 20 points, to make the required number: English, 2 points; History, 4 points; Language, 6 points; Manual Training, 2 points; Mechanical Drawing, 1 point; Natural Science (botany, biology, zoology), 2 points; Physical Science (chemistry, physics), 2 points; Trigonometry, 1 point;

Astronomy (1), Civics (1), Geology (1), Physical Geography (1), Physiology and Hygiene (1), Political Economy (1).

2. 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 examination before he is allowed to enter on the second year of his medical course.

3. The official credentials presented by students from other colleges having at least the standard requirements of this college, may be honored, excepting for the fourth year of their course, but no student will be admitted to advanced standing without a direct communication from the college from which such student desires to withdraw, certifying to the applicant's professional and moral qualifications, and to the exact work he has done in said college.

4. 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 which he has successfully completed in his college course, only so far as it is the full equivalent of corresponding work in the medical curriculum. The holder of such Bachelor's Degree may also be given time credits of not exceeding one year, provided that such student has had at least 40 hours in physics, 144 hours in chemistry, 24 hours in osteology, 292 hours in human or comparative anatomy, 124 hours in histology, 85 hours in embryology, 145 hours in physiology, and 46 hours in materia medica; provided, that the applicant for such time credits satisfies the professors of the chairs mentioned in the medical school as to his proficiency in these first-year medical studies, and satisfies the examiner, as provided for in 2 (*supra*), that his studies for which the degree was conferred include the above requirements. Such student may be allowed to complete a course for the medical degree in not less than 31 months, provided he completes the remainder of the medical curriculum in that time.

Candidates for the degree of Doctor of Medicine shall have attended four courses of study in four calendar years, each annual course to have been of not less than thirty teaching weeks' duration, and at least ten months shall intervene between the beginning of any course and the beginning of the preceding course.

Before admission, every student is required to furnish a satisfactory certificate of good moral character, signed by two

reputable physicians of his locality, and to obtain the Dean's receipt for the payment of the matriculation fee. It will therefore be necessary for the applicant to present himself at the office of the Dean, register his name as a student in the Medical Department, pay his matriculation fee, and arrange for payment of his regular fees. New students will be assigned seats in the order of date of matriculation. Certificates for entrance may be submitted to the Dean for approval at any time and the student's name listed; but matriculation will not take place until the date of the opening of the matriculation book, September 1st.

REGULATIONS REGARDING EXAMINATIONS.

A percentage of 75 is required for passing from grade to grade in all subjects.

The estimate of the standing of each student is based both upon the general character of his work and upon the results of his examination. Students failing to attend 80 per cent of all prescribed exercises in any subject are considered to have failed in that subject, and will not be credited for examination therein.

Students who have failed in not to exceed two subjects are permitted to continue the work of their class when they shall have passed re-examination in those subjects at the beginning of the next college year. Failing to pass this re-examination in more than one subject will necessitate repetition of the whole year's work.

Conditions will be permitted only from preceding year in regular sequence.

No student shall be admitted to the senior year with a full major or more than one minor condition. Students who have failed in three subjects are not admitted to re-examination, but are required to take the whole year's work over again, including those subjects in which they may have passed. In all re-examinations no percentage grades over 75 are given, the student either passes or fails.

Students who for three successive years have failed to secure advanced standing will not be permitted to continue their studies in the college.

Fourth year students are required to pass in all subjects before receiving the degree of Doctor of Medicine.

For a final passing mark students must attain an average of 75 per cent, and not fall below 70 per cent in any one chair in the work of the entire course.

Those who fail in one or two subjects will be admitted to re-examination in those subjects at the beginning of the following regular term. If they pass, they will receive the degree at the next succeeding commencement.

Examinations will be conducted by numbers and not by names of students, so that the identity of the student shall not be known to the examiner.

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, of at least seven and one-half months each, no two of which shall have been delivered within twelve months (unless admitted to advanced standing as above), 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 of study, laboratory work, and moral character. He must have passed successfully the examinations prescribed by the Faculty, and have 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.

COLLEGE EXPENSES.

ALL FEES ARE PAYABLE IN ADVANCE. In a *limited* number of cases some accommodation may be given, but such will be granted in order of application and *must be arranged for at time of matriculation*. Otherwise all fees, except examination fees, must be paid in advance. Fees are not returnable unless, in the judgment of the Faculty, circumstances justify.

All students whose work is in the chemical laboratory will be required to deposit \$3.00, those in the histological, \$7.00, and those in the pathological, or bacteriological laboratory, \$5.00 for breakage. *These fees must be paid before the student will be permitted to do any laboratory work*. With the exception of \$2.00 for each laboratory course, these fees are returnable if no breakage is charged. Dissecting material \$3.00 per part. Operative Surgery on cadaver, \$2.50.

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

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

Fifty dollars per session will be charged students who continue in attendance after having failed to obtain the degree at the end of their normal final year.

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

BOARDING.

Good board with rooms and all the usual accommodations can be obtained in the vicinity of the college at reasonable rates.

DIRECTIONS TO THE STUDENT.

Students will matriculate at the office of the Dean, Professor S. E. Josephi, Dekum Building, Third and Washington Streets, Portland, Oregon.

For further particulars address

S. E. JOSEPHI, M. D., Room 610 Dekum Bldg.,
Third and Washington Sts., PORTLAND OREGON.

DEGREES CONFERRED.

On Commencement Day, June 21, 1911, degrees were conferred as follows:

Degree of Master of Arts upon

James Dean Collins
Estella Mae Sage

Arthur Hayes Sargent
Mary Elizabeth Watson

The Degree of Electrical Engineer upon

Edwin Platts

Ralph R. Poppleton

The Degree of Bachelor of Arts upon

Edith Adelaide Baker
Helen Beach
William M. Beals
Emma Lenore Belat
Cecilia Smith Bell
Mary Belshaw
Beulah Bridges
Jessie Marguerite Calkins
Sophie M. Catlin
Marshall James Clapp
Lilah Platt Clark
Percival Meredith Collier
Mary Louisa Criteser
Juliet Cross
Mary De Bar
N. Gertrude Denhart
David Leslie Dobie
Olive Starr Donnell
Howard W. Drew
Ada Claire Dunn
Jessie Fariss
Myron Warren Getchell
R. June Gray
Madge Norwood Hamble
Mabel Hill
Grace Elizabeth Hobbs
Gertrude Holmes
Conifred Hurd
Virginia Hurd
Hattie Evangeline Hyde

Pearl Johnson
Laura Hall Kennon
Winifred Kerr
Charles Wesley Koyl
Maybelle Churchwright Larsen
Effie Belle McCallum
Hazel Mae McNair
William Edward Moses
Lloyd Mott
William B. Mott
Melvin Pool Ogden
George H. Otten
Cornelia Ann Pinkham
Merwin Rankin
Charles William Robison
Ruth F. Rolfe
Blanche Ross
Harvey Maurice Slater
Morris W. Starbuck
Alice Erna Stoddard
Helen Washburne
George M. White
Pearl Wilbur
Cecile Wilcox
Lucia Winona Wilkins
Naomi Williamson
Edith Verbena Witzel
Edith Marian Woodcock
Ray Woodruff
Willetta Wright

The Degree of Bachelor of Science upon

Philander A. Brownell, Jr.
Francis Day Curtis
Verner A. Gilles
Benjamin W. Grout
Eugene F. Hurlburt
John J. Kestly
Louis Edwin McCoy

Leon C. Parks
Alonzo A. Perkins
Louis H. Pinkham, Jr.
William Rueter
Alfred W. Scullen
Ferdinand Theodore Struck

The Degree of Bachelor of Music upon

Lila Carrie Prosser

The Degree of Bachelor of Laws upon

J. Dean Butler
Lester D. Butler
Ira W. Carl
Herbert Fanning Clarke
Lynn B. Coovert
Paul B. Deicke
Frederick Marion Dempsey
Arthur Livingstone Dundas
Clarence Merle Eubanks
Kenneth L. Fenton
Walter B. Gleason
John William Griffin
Fred Baker Hammond
A. W. Hawkins
Arthur Douglas Hay
Wilber Henderson
Edwin N. Hoff
Roy O. Hollabaugh
Clifford F. Holland
Clarence R. Hotchkiss
Tsunekichi Kimura

Arthur Hamilton Lewis
Blanche Luckey
Alva McKinley
Harold C. Merryman
Frank R. Miller
George Holland Mullins
Abraham Nelson
Frank A. Peil
Fred J. Phillips
Fitch Lawrence Phipps
Arthur Calvin Raven
Robert D. Searcy
Frank S. Sever
Melvin D. Snow
Theodore T. Stenberg
Harry A. Swart
Frank Bernard Thompson
Willard Arthur Tupper
John C. Veatch
Elmer E. Young

The Degree of Doctor of Medicine upon

Frederick Adams
Edgar Harrison Anderson
William Harrison Barendrick
James Marr Bisailon
Walter A. Borland
Henry Augustus Canfield
Collins Flint Cathey
Thompson Cobreth

James Burton Gillis
Roland Vivian Leep
Albert Mount
Michael Edward Purcell
George Elmer Riggs
John Reith
Harry Everett Shoot
Christian Emil Stafrin

SPECIAL HONORS FOR EXCELLENCE OF THESES.

WILLIAM MARTIN BEALS, "A Critique of Emerson Hough's Novel 'Fifty-Four Forty or Fight.'"

CECILIA BELL, "Children and the Modern English Novel."

JESSIE M. CALKINS, "Shakespeare's Men of Action."

LILAH PLATT CLARK, "Plans for Rural Uplift in Oregon."

PERCIVAL M. COLLIER, "A Forestry Policy for Oregon."

GERTRUDE DENHART, "A Parallel Study of King James, 'Kinges Quhar' and Chaucer's 'The Knight's Tale' and 'The Hous of Fame', for the purpose of showing the extent of King James' indebtedness to Chaucer."

JESSIE FARISS, "A History of the Criticisms on 'Macbeth.'"

VERNER A. GILLES, "Determination of Sulphur Dioxide and Sulphur Trioxide."

HATTIE E. HYDE, "Euclid and His influence on Subsequent Geometrical Teaching."

LAURA HALL KENNON, "Bronson Alcott and his Temple School."

EFFIE BELL MCCALLUM, "A Study of John Lathrop Motley as an Historian."

MELVIN POOL OGDEN, "A Scientific Budget for Oregon."

CHARLES W. ROBISON, "The Jew in Literature and a Historical Survey of the Character of Shylock."

MORRIS W. STARBUCK, "Road Construction and Legislation."

ALICE STODDARD, "The Teaching of Arithmetic."

MARY ELIZABETH WATSON, "The Use of Shakespeare's Personality in Interpretation of his Plays."

EDITH MARION WOODCOCK, "Chateaubriand's 'Rene.'"

STUDENTS ENROLLED

GRADUATE SCHOOL

Bergman, Annie	Astoria
Billington, Frank Edwin	Eugene
Bond, Paul G.	Eugene
DeBar, Mary	Eugene
Denhart, Gertrude	White, South Dakota
Duniway, Ruth	Portland
McClain, Carl A.	Eugene
Reid, Charles Roy	Eugene
Sage, Estella May	Eugene
Sanborn, Ethel Ida	Vermillion, South Dakota
Wheelon, Homer	Sunnyside, Wash.
Wigmore, Ernest Charles	Eugene
Williams, Benjamin Harrison	Eugene

COLLEGE OF LITERATURE, SCIENCE AND THE ARTS, AND
COLLEGE OF ENGINEERING.

Abrams, Lucile	B. A.	Eugene
Ackerson, Luton	B. A.	Eugene
Adams, Frances	B. A.	Silverton
Adams, Grace M.	B. A.	Eugene
Adamson, Grace N.	B. A.	Pocatello, Idaho
Adler, Sanford	E. E.	Baker
Allison, Jean Katherine	B. A.	Portland
Anderson, Bessie V.	B. A.	Springfield
Anderson, Ernest L.	B. A.	Cottage Grove
Anunsen, Fred	C. E.	Portland
Apperson, Arthur La Vern	E. E.	Eugene
Applegate, Rachel E.	B. A.	Klamath Falls

Archambeau, Louretta M.	B. A.	Eugene
Ashcraft, Norman B.	B. A.	Ashland
Avery, Florence Elizabeth	B. A.	Hood River
Bagley, Mildred Edith	B. A.	Salem
Bailey, Edward Flint	B. A.	Eugene
Bailey, Walter R.	B. A.	Gladstone
Bain, Elsie	B. A.	Albany
Baker, J. Albert	C. E.	Eugene
Banfield, Rita Ellen	B. A.	Portland
Barbour, Wendell C.	B. A.	Eugene
Barbur, Herbert Lloid	Min. E.	Portland
Barta, Hazel	B. A.	Superior, Wis.
Bartlett, Neta	B. A.	Portland
Barzee, Lloyd D.	B. A.	Portland
Basler, Rose M.	B. A.	Portland
Bauer, Henry	B. A.	Portland
Beach, Ruth	B. A.	Portland
Beals, Maude Joy	B. A.	Eugene
Bean, Grace	B. A.	Salem
Bean, Harold	B. A.	Portland
Bean, Hawley	B. A.	Salem
Beck, Callie Bertha	B. A.	Cisne, Illinois
Bedford, Arba S.	E. E.	Rushmore, Minn.
Beebe, Ethel Grace	B. A.	Eugene
Beebe, Francis Arthur	B. A.	Eugene
Beebe, Pansy Belle	B. A.	Eugene
Bell, Dana	B. A.	Goshen
Benson, Wallace G.	B. A.	Gardiner
Bibee, Jessie Merle	B. A.	Portland
Bigbee, Morris S.	C. E.	Albany
Bisch, Leona Ethelyn	B. A.	Jefferson
Black, Harry Spencer	B. A.	Portland
Black, John Arthur, Jr.	C. E.	Portland
Black, Verena	B. A.	Eugene
Blackaby, Earl	B. A.	Ontario
Blackman, Abe B.	C. E.	Portland
Blohm, Sophus T.	B. A.	Portland

Bond, Lewis Alexander	B. A.	Eugene
Bonisteel, Pearle B.	B. A.	Berwyn, Illinois
Bonnell, Florence Etoyle	B. A.	Portland
Booth, Barbara Wenzora	B. A.	Eugene
Borman, Thomas Leland	C. E.	Baker
Boylan, Tom, Jr.	B. A.	Pendleton
Bradley, Hazel Harriet	B. A.	Portland
Bradshaw, Robert C.	B. A.	The Dalles
Brant, Hilda	B. A.	Portland
Bratager, Leonard J.	B. A.	Sioux Falls, S. Dak.
Brenton, Walter	E. E.	Eugene
Briedwell, Paul R.	B. A.	Amity
Broadbridge, George William	B. A.	La Grande
Brooks, Irwin G.	B. A.	Portland
Brooks, Russell M.	B. A.	Silverton
Brotherton, Clarence Edward	B. A.	Athena
Broughton, Harold J.	E. E.	Portland
Brown, Lyle F.	Min. E.	Portland
Brown, Sybil	B. A.	Portland
Buell, Edith	B. A.	San Jose, Calif.
Buell, Gertrude	B. A.	San Jose, Calif.
Burgard, John Clark	B. A.	Portland
Burris, Victor E.	B. A.	Bend
Busch, Elizabeth	B. A.	Portland
Cake, Helen Marian	B. A.	Portland
Cake, Ralph Harlan	B. A.	Portland
Calkins, Russell Dean	B. A.	Eugene
Campbell, Agnes Dorothy	B. A.	Monmouth
Campbell, Alberta Winifred	B. A.	Eugene
Campbell, Brent	B. A.	Eugene
Campbell, David B.	B. A.	Monmouth
Campbell, Esther M.	B. A.	Jennings Lodge
Campbell, Irmalee Alexandra	B. A.	Eugene
Campbell, Lucia Eugenia	B. A.	Eugene
Carl, George Frederick	C. E.	Klamath Falls
Caro, Raymond J.	B. A.	Burke, Idaho
Carrick, Richard Scott	C. E.	Portland

Carson, Catharine C.	B. A.	Salem
Carson, Esther	B. A.	Salem
Cartwright, Gladys	B. A.	Salem
Casebeer, Chauncey R.	B. A.	Eugene
Cash, Alvin Burleigh	B. A.	Hood River
Cass, William Avery	B. A.	Hood River
Caufield, Raymond P.	B. A.	Oregon City
Caufield, Wallace B.	C. E.	Oregon City
Cecil, James Carrol	B. A.	Burns
Cecil, Louise	B. A.	Portland
Chace, Cora	B. A.	Eugene
Chandler, Benjamin R.	B. A.	Marshfield
Chandler, Gertrude	B. A.	Richland
Chessman, William Dale	B. A.	Portland
Childers, Earl	B. A.	Milton
Clark, Alfred Barnard	B. A.	Portland
Clark, Fay	B. A.	Kelso, Wash.
Clements, Edith	B. A.	Roseburg
Cleveland, Florence Ruth	B. A.	Portland
Clifford, Erma	B. A.	Baker
Cobb, Earl S.	B. A.	Portland
Cockerline, Harold B.	E. E.	Eugene
Cogswell, Lucile	B. A.	Portland
Cole, Effie M.	B. A.	Eugene
Cole, Grace May	B. A.	Wilbur
Collier, Alfred D.	C. E.	Eugene
Collier, Andrew McCornack	B. A.	Eugene
Cook, Charles D.	B. A.	Eugene
Cooper, Genevieve	B. A.	Independence
Cossman, James Kirtley	B. A.	Creswell
Cowan, Marjory	B. A.	Marshfield
Cowden, Corina Bess	B. A.	Silverton
Cowden, Norton Ralph	B. A.	Silverton
Cowgill, Alice	B. A.	Medford
Crenshaw, Jesse H.	B. S.	Eugene
Crockatt, Peter Campbell	B. A.	Pendleton
Cross, Georgiana	B. A.	Oregon City
Currey, Roy Benson	B. A.	La Grande

Currin, Hugh Perkins	E. E.	Cottage Grove
Curtis, Glenn Dale	B. A.	Cherokee, Iowa
Curtis, Harry Emmett	C. E.	Cherokee, Iowa
Custer, Marion L.	E. E.	Coquille
Cutler, Clementene	B. A.	Portland
Datson, Edna Prescott	B. A.	Eugene
Davidson, Frank	B. S.	Eugene
Davies, Alfred H.	C. E.	Portland
Davis, Lucile Allen	B. A.	Corvallis
Davis, Ruth Evelyn	B. Mus.	Eugene
Dawson, Cloyd O.	B. A.	Tillamook
DeBar, Bryant Graves	B. A.	Eugene
Degermark, Carin H.	B. A.	Portland
Devereaux, Harry E.	C. E.	Eugene
Deyoe, Claire E.	B. A.	Eugene
Dickerson, Rollien	B. A.	Joseph
Dickson, Henry Westbrook	B. A.	Pendleton
Dimm, Walter Robert	B. A.	Eugene
Ding, Harry J.	C. E.	Portland
Dinneen, Lawrence	B. A.	Portland
Dinsmore, Benjamin Scott	B. A.	Greensburg, Pa.
Dobie, Norma B.	B. A.	Eugene
Dobie, Walter Logie	B. A.	Eugene
Donald, James Thomsen	B. A.	Baker
Donnelly, James E.	B. A.	Condon
Dorr, Edwin L.	B. A.	Eugene
Dorris, Benjamin Fultz	B. A.	Walla Walla, Wn.
Dorris, Ruth	B. A.	Walla Walla, Wn.
Dougherty, Mona E.	B. Mus.	Wallowa
Drew, Nettie V.	B. A.	Portland
Dudley, Frank A.	B. A.	Portland
Dunham, Flora A.	B. A.	Portland
Dunlap, William Gates	B. A.	Portland
Dunton, Forrest E.	B. S.	Molalla
Early, Reymund B.	B. A.	Hood River
Eastham, Vera Valene	B. A.	Eugene
Edwards, Ruby Clare	B. A.	Eugene

Edwards, Vera Belle	B. A.	Eugene
Egan, Marguerite C.	B. A.	Gervais
Elliott, Agnes Elizabeth	B. A.	Prineville
Emerick, Aletha	B. A.	Medford
Epperly, Albert M.	B. A.	Lebanon
Evans, Ethel L.	B. A.	Eugene
Evans, Raymond O.	C. E.	McMinnville
Ewbank, Isole	B. A.	Eugene
Ewbank, Leola	B. A.	Eugene
Fariss, J. Robert	B. S.	Eugene
Farnsworth, Alice Good.....	B. A.	Bakersfield, Calif.
Fenton, Boyce	B. A.	McMinnville
Fenton, Carl B.	C. E.	Dallas
Finch, Leland Stanford	B. A.	Baker
Fisher, Walter Summerville.....	B. A.	Roseburg
Fitch, Roy Orville	B. S.	Sherwood
Fletcher, F. Tilden	B. A.	Eugene
Ford, Edsall Post	B. A.	Portland
Fortmiller, George Earl.....	B. A.	Albany
Foster, Florence	B. A.	Eugene
Fowler, Charles A., Jr.....	C. E.	Portland
Fowler, Henry	C. E.	Portland
Fraley, Earl J.	B. A.	Ashland
Frazer, Eva	B. S.	Eugene
Frazer, Kenneth Francis	B. A.	Portland
Frazier, Chester Wilkins	B. A.	Milton
Frazier, George W.	B. A.	Portland
Frederickson, Harry William	B. A.	Eugene
Frink, Ellen Beadle	B. A.	Eugene
Fry, Jennie H.	B. A.	Salem
Fulton, Alan Clyde	B. A.	Astoria
Fulton, Margaret Virginia	B. A.	Astoria
Gabriel, George A.	B. A.	Dayton
Galloway, Floyd T. J.	B. A.	Elgin
Gardner, Lillian Lucille	B. A.	Eugene
Garrett, Lida O.	B. A.	Eugene

Gaston, Ira Earl	B. A.	Astoria
Gaunt, Walter	B. A.	McMinnville
Geary, Edward Andrew	B. A.	Portland
Geisler, Carlyle Dressler	B. A.	Portland
Geisler, Louis Raphael	B. A.	Portland
Genn, Vernon C.	C. E.	Eugene
George, Helen	B. A.	Portland
Gibson, Ruth	B. A.	Portland
Giles, Raymond Burl	E. E.	Bellefourche, S. Dak.
Gilkey, Dean	B. A.	Eugene
Gilkey, Lillian	B. A.	Eugene
Gilstrap, Cosby	B. A.	Eugene
Glass, David Gilbert	B. A.	Myrtle Creek
Goldsmith, Frieda	B. A.	Eugene
Goldsmith, Meta Marion	B. A.	Eugene
Good, Eugene N.	B. S.	La Grande
Goodwin, Marsh H.	B. A.	Eugene
Gould, Aaron H., Jr.	E. E.	Portland
Grady, Harold Henderson	B. S.	La Grande
Graham, Gladys Chandler	B. A.	Astoria
Graves, Norma	B. A.	Portland
Gray, Howard	B. A.	Milwaukee
Grayson, Carl M.	B. A.	Tillamook
Green, Ethel Gladys	B. A.	Eugene
Griffin, Gilbert	E. E.	Eugene
Grissen, Esther E.	B. A.	McMinnville
Grout, Alva R.	C. E.	North Bend
Guerne, Charles Augustus	B. A.	Turner
Guthrie, Maude Lillian	B. A.	Eugene
Hager, Celia V.	B. A.	Eugene
Hall, Ada R.	B. A.	Eugene
Hall, Elmer Edwards	C. E.	Baker
Hamilton, Kenworthy	B. A.	Grants Pass
Hammarstrom, Rubie	B. A.	Astoria
Hammond, Philip L.	B. A.	Eugene
Hansen, Lenora	B. A.	Portland
Hardesty, Fred A.	B. A.	Astoria

Hardie, Ruth Claire	B. A.	Portland
Harding, Lloyd Ordway	B. A.	Oregon City
Harding, Madelene	B. A.	Silverton
Hartley, Albert C.	B. A.	Silverton
Hartley, Grace M.	B. A.	Enterprise
Harvey, Edna May	B. A.	Eugene
Haugen, Oscar S.	B. A.	Portland
Hawkins, David Victor	B. S.	Portland
Hawkins, Martin W.	B. A.	Portland
Hawley, Alsea	B. A.	Cottage Grove
Hawley, Clark R.	B. S.	Eugene
Hawley, L. Homer	B. A.	Cottage Grove
Healey, Mildred	B. Mus.	Spokane, Wash.
Heaton, Lewis	B. A.	Marcus, Iowa
Heidenreich, Henry W.	B. S.	LaGrande
Heider, Otto W.	B. A.	Sheridan
Heider, Raymond	C. E.	Sheridan
Hemenway, Nellie H.	B. A.	Cottage Grove
Henderson, Sidney Elliott	C. E.	Portland
Hendricks, Carl Herbert	B. A.	Fossil
Hendricks, Ford	B. A.	Fossil
Hendricks, Leland Giesy	B. A.	Salem
Heusner, William Bates	B. A.	Portland
Hill, Maurice Benjamin	B. A.	Athens
Himes, Edward J.	C. E.	Portland
Hodge, Walter Stanley	C. E.	Coquille
Holbrook, Helen Corey	B. A.	Portland
Holcomb, Marjorie	B. A.	Portland
Holden, Lynn A.	B. A.	Portland
Holman, Minnie Marie	B. A.	LaGrande
Holt, Vesta	B. A.	Eugene
Homer, Carl Norman	B. S.	Somersville, Conn.
Horner, Alicia Pearl	B. A.	Corvallis
Houston, A. Evans	B. A.	Albany
Howard, Audrey	B. A.	Junction
Howard, Edra	B. Mus.	Springfield
Howard, James Hunter	B. A.	Portland

Howard, Thornton Wayne	E. E.	Oregon City
Howell, Ruth Marie	B. A.	Portland
Hudson, Thomas R.	B. A.	The Dalles
Huggins, George Chester	B. A.	Hood River
Huggins, Leigh M.	C. E.	Portland
Huntington, Walter M.	B. A.	The Dalles
Hurd, Lionel Roscoe	B. A.	Florence
Ingle, Joe L.	E. E.	LaGrande
Inglis, Mabel	B. A.	Eugene
Irish, Merwin R.	Ry. E.	Eugene
Jackson, Minnie	B. A.	Medford
Jamison, Homer B.	B. A.	Portland
Jarvis, Opal	B. A.	Eugene
Jaureguy, Anthony	E. E.	Tacoma, Wash.
Jerard, Bertrand S.	B. A.	Pendleton
Johns, James S.	B. A.	Pendleton
Johnson, Helen Margaret	B. A.	Eugene
Johnson, J. Lewis	C. E.	Eugene
Johnson, Rosa B.	B. A.	Clatskanie
Johnson, Roy	B. A.	Gresham
Jones, Jesse Buford	B. S.	McMinnville
Jones, J. Earl	C. E.	Newberg
Jones, Joseph Frederick	B. A.	Portland
Junkin, B. Florence	B. A.	Portland
Kay, Ercel W.	B. A.	Salem
Kellems, Jesse Randolph	B. A.	Eugene
Kellogg, Robert N.	C. E.	Burns
Kelly, John George, Jr.	M. E.	Portland
Kelly, Kate Eloise	B. A.	Portland
Kendall, Ada Gleason	B. A.	Portland
Kendall, Florence Oswald	B. A.	Portland
Kendall, F. Neal	B. A.	Portland
Kennedy, Rolland Cashel	E. E.	Portland
Kimball, Nathaniel J.	B. A.	Pendleton
Kimmell, Walter W.	B. A.	Lebanon

Kincaid, Maude	B. A.	Ashland
King, Dalzel M.	B. A.	Myrtle Point
Kinsey, Beulah Belshawe	B. A.	Eugene
Kirkpatrick, Katherine J.	B. A.	Lebanon
Kiser, Charles E.	B. A.	Oakland, Calif.
Knapp, Matilda Patton	B. A.	Portland
Knox, Jane Webb	B. A.	Portland
Koyl, Carolyn S.	B. A.	Eugene
Kraus, John	B. A.	Aurora
Kronenberg, Chester Tegart	B. A.	Cleone
Kuykendall, Robert B.	B. A.	Eugene
Lackey, William Edward	B. A.	Portland
Lamb, Ernest Dolph	B. A.	Eugene
Lane, Edward Erie	B. A.	Walla Walla, Wash.
Lane, Mabel Joy	B. A.	Harrisburg
Larsen, Alice E.	B. A.	Oregon City
Larwood, Donald Whitman	C. E.	Eugene
Lathrop, Ruth Madeline	B. A.	Eugene
Latourette, Earle C.	B. A.	Oregon City
Leach, Fairy Virginia	B. A.	Portland
Leggett, John Franklin	B. A.	Eugene
Lewis, Elizabeth	B. A.	Portland
Lilly, Beatrice	B. A.	Portland
Lingenfelter, C. Homer	B. A.	Boise, Idaho
Livermore, Lynwood H.	B. A.	Pendleton
Livingston, Curtiss B.	B. A.	Forest Grove
Lombard, Herbert W.	B. A.	Eugene
Lorence, Mabel Violet	B. A.	Monmouth
Lowell, William E.	B. A.	Pendleton
Luckey, John Elwood	B. A.	Hood River
Lyons, Stewart H.	E. E.	Portland
Lytle, Harry Gross	B. A.	Portland
MacDonald, Maude A.	B. A.	Seattle, Wash.
Macklin, Lucia	B. A.	Portland
MacLaren, Ruth	B. A.	Portland
Macneill, William	B. A.	Albany

Maegly, Esther	B. A.	Portland
Main, William Sangster	E. E.	Goleta, Calif.
Manville, Ira Albert	B. A.	Eugene
Maris, W. Homer	B. A.	Portland
Marsden, George B.	B. A.	Burns
Marshall, Charles Louis	Min. E.	Portland
Martin, Alexander	E. E.	Klamath Falls
Martin, Edgar E.	C. E.	Atchison, Kan.
Martin, Melissa Margaret	B. A.	Albany
Martzloff, Karl H.	B. A.	Portland
Mastick, Maud	B. A.	Portland
Mathias, Fred Scott	B. A.	Portland
Matthies, Meta C.	B. A.	Portland
Maxfield, Vernon Luther	B. A.	Payette, Idaho
McAdam, Maurine Crownover	B. A.	Portland
McAllen, William Daniel	B. A.	Portland
McClaine, Sophronia Eleanor	B. A.	Silverton
McClure, Walter Rayburn	B. A.	Eugene
McColl, Charles R.	B. A.	Gresham
McCornack, Robert DeHuff	B. A.	Spokane, Wash.
McDaniel, David L.	B. A.	Rock Creek
McFarland, Mary Alice	B. A.	Grants Pass
McGilchrist, Millar	B. A.	Salem
McGuire, John Perry	E. E.	Colorado
McKelvey, Merle	B. A.	Portland
McKnight, Edna Clarinda	B. A.	Albany
McKown, Hazel	B. A.	Eugene
McKown, Imogene R.	B. A.	Eugene
McLauchlan, Agnes	B. A.	Portland
McMicken, Anna S.	B. A.	Portland
McMillan, Charles W.	C. E.	Garibaldi
McQuinn, Lucile	B. A.	Portland
Meek, Edward Colton	B. A.	Portland
Meredith, Helen Elizabeth	B. A.	Portland
Merrick, Ruth M.	B. A.	Medford
Messenger, Edna May	B. A.	Portland
Metcalf, Helen Frances	B. A.	Stevensville, Mont.

Meyers, Cyril Hope	E. E.	Gresham
Michael, Graham J.	B. S.	San Francisco, Calif.
Michael, Sam	B. A.	Baker
Mickelson, Edith	B. A.	Eugene
Miles, Carl S.	B. A.	Missouri
Miller, Cecil Olive	B. A.	Portland
Miller, Edna	B. Mus.	Klamath Falls
Miller, Ermel	B. A.	Portland
Miller, Harry U.	B. A.	Newberg
Miller, Mabel Salena	B. A.	Eugene
Miller, Pherne N.	B. A.	Creswell
Miller, Waldo S.	B. A.	Portland
Moe, Roger Waldo	B. A.	Hood River
Moffat, Vera Myrtle	B. A.	Eugene
Moore, Ethel E.	B. A.	Oak Grove
Moore, Harry	B. A.	Eugene
Moore, John	B. A.	Klamath Falls
Moore, Merle Snodgrass	B. A.	Eugene
Moore, Will T.	B. A.	Pleasant Hill
Moorehouse, Vesta Irene	B. A.	Portland
Moores, Chester A.	B. A.	Portland
Moores, Ralph Dickenson	B. A.	Salem
Moorhead, Josephine	B. A.	Junction
Morden, Parks Lorraine	E. E.	Portland
Morgan, George W.	B. A.	Eugene
Morrison, Bessie	B. A.	Eugene
Morrison, Lee Burton	B. S.	Eugene
Morrison, Rose A.	B. A.	Mayville, N. D.
Morton, Melville	B. A.	Astoria
Motschenbacher, Clarence E.	B. A.	Klamath Falls
Motschenbacher, Vernon T.	B. A.	Klamath Falls
Moulton, Ella L.	B. A.	Baker
Mount, Wallace, Jr.	B. A.	Olympia, Wash.
Mowe, Hubert E.	B. A.	Cornelius
Moxley, Edith	B. A.	Eugene
Munly, William Charles	B. A.	Portland
Murphey, Nell	B. A.	Portland

Myers, Fred T.	C. E.	Caldwell, Idaho
Myers, Walter L.	B. A.	The Dalles
Nail, Maud E.	B. A.	Glendale
Neill, Will T.	E. E.	LaGrande
Newland, Nellie Inez	B. A.	Eugene
Newland, Ralph P.	C. E.	Palo Alto, Calif.
Newton, Lena B.	B. A.	Hood River
Nitschke, William H.	E. E.	The Dalles
Noland, Frank	E. E.	Creswell
Noland, Virgil G.	B. A.	Klamath Falls
Noon, Alma	B. A.	Portland
Northrop, Frank Ford	E. E.	Eugene
Northrop, Winifred	B. A.	Eugene
Norton, Mae Adelia	B. A.	Portland
Oberholtzer, Aldous	B. A.	Spokane, Wash.
Obert, Leslie	B. A.	Eugene
Oberteuffer, G. Herman	B. A.	Portland
Oleson, Charles Raymond	C. E.	Portland
Olsen, Olga Eunice	B. A.	Portland
Onthank, Karl W.	E. E.	Hood River
Osburn, Verneta	B. A.	Brownsville
Pack, James A., Jr.	B. A.	Boise, Idaho
Pague, Donald Mitchell	B. A.	Portland
Parker, Verlin	B. A.	Eugene
Parks, Lois C.	B. A.	Junction City
Parr, Hulda	B. A.	Portland
Parsons, John F.	B. A.	Portland
Partlow, Verne A.	B. A.	Olympia, Wash.
Pate, Merl S.	B. A.	Eugene
Pattee, Clyde	E. E.	Hood River
Payne, Buford B.	E. E.	Albany
Payton, Alma	B. A.	Baker
Peet, Harold W.	E. E.	Sumpter
Pefley, Harlen	E. E.	Boise, Idaho
Perkins, Leah C.	B. Mus.	Cottage Grove
Peter, Ruth	B. A.	Baker

Phillips, Allie	B. A.	Cottage Grove
Pickett, David C.	B. A.	Prineville
Pike, Minnie A.	B. A.	Woodward, Iowa
Ploegstra, Georgia	B. A.	Portland
Plummer, Doris Marian	B. A.	Portland
Poley, Minnie Irene	B. A.	Ashland
Potter, Pauline	B. A.	Eugene
Poulsen, Olga Marion	B. A.	Portland
Powell, Blanche	B. A.	Cleone
Powell, Margaret	B. A.	Cleone
Powell, Robert Burns	B. A.	Portland
Prather, Georgia	B. A.	Hood River
Pratt, Claire	B. A.	Portland
Prosser, Jessie A. E.	B. A.	Eugene
Prosser, Lila Carrie	B. A.	Eugene
Pummill, Lora Belle	B. A.	Grants Pass
Pursley, Frank C.	B. A.	Portland
Putnam, Ralph Lloyd	B. A.	San Jose, Calif.
Quigley, Harold W.	B. S.	Portland
Rader, Donald Roger	B. A.	Medford
Rader, Hazel V.	B. A.	Medford
Ralston, Rolla E.	B. A.	Albany
Ramage, Helen	B. A.	Eugene
Ramage, Mary Frances	B. A.	Eugene
Ramsey, George Harvey	B. A.	Crabtree
Rankin, Marguerite	B. A.	Portland
Rasmussen, Falley G.	B. A.	Newberg
Rast, John V.	C. E.	Roseburg
Ray, L. Leon	B. A.	Eugene
Redman, Vera	B. A.	Portland
Reese, Marie	B. A.	Ashland
Reigard, Pearl	B. A.	Marshfield
Reynolds, Charles A.	B. A.	Silverton
Reynolds, Charles N.	C. E.	Portland
Reynolds, Clarence William	B. A.	Buena Vista
Rhodes, H. Frieda	B. A.	Eugene

Rice, Donald Blair	B. A.	Portland
Rice, Lyman G.	E. E.	Pendleton
Riddell, Elizabeth Carolyn	B. A.	Long Beach, Calif.
Riddle, Mildred	B. A.	LaGrande
Riddle, Sara S.	B. A.	LaGrande
Risley, Ethelind	B. A.	Milwaukee
Robb, William H.	B. A.	Eugene
Roberts, Allyn F.	C. E.	The Dalles
Roberts, Elliott P.	C. E.	The Dalles
Roberts, Mason Henry	C. E.	Portland
Roberts, Oudin Gregory	B. A.	Portland
Robinson, Verna Mae	B. A.	Canby
Roche, Eva	B. A.	Portland
Rohse, Marguerite	B. A.	Portland
Rolfe, Erwin M.	B. A.	Eugene
Rothchild, Amy Celia	B. A.	Portland
Rothchild, J. Manfred	B. A.	Portland
Ruch, Giles Murrel	B. A.	Eugene
Ryan, Herbert James	C. E.	Gresham
Ryder, Agnes J.	B. A.	Eugene
Ryder, James	C. E.	Eugene
Sawyer, Cecile Hardy	B. A.	Brownsville
Schantin, George W.	B. A.	Cleone
Schneider, Otto G.	B. A.	Myrtle Point
Scholl, August P.	Chem. E.	Portland
Schoolcraft, Dorothy	B. A.	Bend
Searcy, Georgia Arlene	B. A.	Condon
Sears, Charlotte Strong	B. A.	West Hartford, Conn.
Sears, Ruth Willard	B. A.	West Hartford, Conn.
Sengstake, Lila Margaret	B. A.	Portland
Service, Archie M.	C. E.	Baker
Sexton, Velma	B. A.	Eugene
Shattuck, John Wesley	B. A.	Portland
Shaver, Pansy	B. A.	Portland
Shea, Alfred A.	B. A.	Portland
Shearer, Ellice	B. A.	Portland
Sheehy, Edith	B. A.	Portland

Sheehy, Marguerite	B. A.	Portland
Sheldon, Eberle	B. A.	Eugene
Shepherd, Lucile	B. A.	Portland
Sheridan, Lauren E.	B. A.	Rossville, Ind.
Sherwood, Gretchen	B. A.	Coquille
Sidwell, Ernest	B. A.	Bandon
Sigglin, C. Herman	C. E.	Portland
Sims, Clifford M.	B. A.	Eugene
Sinclair, Anna Llewellyn	B. A.	Emmett, Idaho
Skei, Alfred H. M.	C. E.	Mt. Angel
Slater, Anita	B. A.	Pendleton
Smith, Byron H.	E. E.	Springfield
Smith, Ernest James	B. A.	Medford
Smith, H. Lyle	B. A.	Rossville, Ind.
Smith, Ruth Gladys	B. A.	Eugene
Smyth, Sidney Hugh	B. A.	Portland
Snell, Elizabeth Lord	B. A.	Junction City
Soults, Zella Mae	B. A.	Eugene
Spencer, Carlton E.	B. A.	Cottage Grove
Staggs, Ira Dwight	E. E.	Spokane, Wash.
Staiger, Franklin W.	B. A.	Portland
Stanard, Delbert C.	B. A.	Portland
Stanfield, Javina	B. A.	Portland
Stannard, Everett Earle	B. A.	Brownsville
Stastny, Matthew Michael	B. A.	Jefferson
Stearns, Edwin	B. A.	Eugene
Stebno, Beulah Annette	B. A.	Eugene
Steiber, Lyle	B. A.	Jefferson
Stenberg, Edwin Severance	B. A.	Ormsby, Minn.
Stevens, Lloyd Croasmun	B. A.	Graceville, Minn.
Stevens, Pearl J.	B. A.	Aberdeen, So. Dak.
Stevenson, George E.	C. E.	Eugene
Stiles, Frank Luther	B. A.	Loveland, Colo.
Still, Claude	B. A.	Milton
Stine, Harry Moran	B. A.	Monmouth
St. John, William Errle	B. A.	Eugene
Stoehr, Otto	C. E.	Milwaukee

Stone, Ruth M.	B. A.	Portland
Storie, Glen Edwin	B. A.	Pendleton
Stowe, Marion Eugenia	B. A.	Portland
Strachan, Lexie	B. A.	Dufur
Strang, Augustus Jessup	B. A.	Salem
Street, Andrew Ervin	C. E.	Roseburg
Strong, Bert L.	C. E.	Portland
Struck, Martha Bertha	B. A.	Hood River
Stuart, Kathleen	B. A.	Eugene
Stuller, Everett R.	C. E.	Baker
Sun, Woo	C. E.	Salem
Sweet, Harriet F.	B. A.	Coquille
Sweet, Jessie M.	B. A.	Coquille
Tappan, George Lee	B. A.	Emmett, Idaho
Tappenden, Mary Alice	B. A.	Portland
Taylor, Gertrude	B. A.	Albany
Terpening, Maurice E.	B. A.	Eugene
Thiele, Martina H.	B. A.	Portland
Thomas, Carl Francis	C. E.	Portland
Thomas, Raymond V.	C. E.	Ashland
Thompson, Wilbur Hines	B. A.	Gresham
Thrall, Anna Florence	B. A.	Eugene
Tiffany, Grace I.	B. A.	Eugene
Tooze, Ethel	B. A.	Falls City
Tooze, Hazel M.	B. A.	Oregon City
Tschanz, Herman C.	B. A.	Eugene
Turner, Rex A.	B. A.	Salem
Turney, Ida Viola	B. A.	Stanley, Wis.
Van Duyn, C. Herbert	E. E.	Eugene
Van Marter, LaVerne	B. A.	Portland
Van Orsdel, Pauline	B. A.	Dallas
Vawter, Vernon H.	B. A.	Medford
Veatch, Mabel	B. A.	Cottage Grove
Viereck, Harry C.	B. A.	Tillamook
Vosper, Ernest Edward	B. A.	Portland

Wagner, Carroll Marshall	C. E.	Ashland
Wagner, Elizabeth	B. A.	Ashland
Waite, Fendel Sutherlin	B. A.	Sutherlin
Waite, Mildred	B. A.	Sutherlin
Walker, Dean H.	B. A.	Independence
Walker, Earl T.	E. E.	Oregon City
Walls, Clarence W.	C. E.	Portland
Warner, Harold J.	B. A.	Pendleton
Warner, Lawrence E.	E. E.	Eugene
Warner, Raymond	B. S.	Eugene
Warner, Veda P.	B. A.	Eugene
Warnock, Ida Maude	B. A.	Eugene
Warren, Formosa Elizabeth	B. A.	Eugene
Wash, Eva F.	B. A.	Eugene
Washburne, Claude B.	E. E.	Springfield
Waterman, Emma Jane	B. A.	Baker
Watkins, Ina Mae	B. A.	Eugene
Watkins, Muriel	B. A.	Inglewood, Calif.
Watson, H. Clay	B. A.	Eugene
Watson, James L.	E. E.	Eugene
Watson, Richard Gwyn	B. A.	Eugene
Watt, Edith Elizabeth	B. A.	Bay City
Welch, John W.	B. A.	Portland
Wentworth, Thaddeus H.	B. A.	Portland
Werlein, Helen Clare	B. A.	Portland
Westfall, Beulah	B. A.	Eugene
Wetzel, Mabel Lucille	B. A.	Eugene
Whalley, Margaret	B. A.	Portland
White, Gail	B. A.	Payette, Idaho
Whitman, J. Laurence	B. S.	Pendleton
Whittlesey, Ludella Miriam	B. A.	Eugene
Whittlesey, Mildred R.	B. A.	Portland
Wightman, Hazel E.	B. A.	Orchards, Wash.
Williams, Ivy May	B. A.	Cove
Williams, Raymond O.	B. A.	LaGrande
Williamson, Joseph R.	B. A.	LaGrande
Williamson, Lowell	C. E.	LaGrande

Wines, Clara May	B. A.	Medford
Wise, Birdie	B. A.	Astoria
Wiseman, Nina	B. A.	Burns
Wolgamuth, Beatrice B.	B. A.	Brownsville
Wood, Grace	B. A.	Eugene
Woodward, Constance	B. A.	Portland
Wootton, Betsy W.	B. A.	Astoria
Word, Tom, Jr.	B. A.	Portland
Wray, Robert M.	C. E.	Silverton
Yaden, Joseph Vincent	B. A.	Klamath Falls
Yoran, Lucile Marie	B. A.	Eugene
Young, Bess May	B. A.	Lents
Young, Harold	B. A.	Eugene
Young, Janet	B. A.	The Dalles
Young, Ralph G.	B. A.	Portland
Young, Wilma C.	B. A.	Astoria
Zimmerman, Jessie Darl	B. A.	Eugene
Zimmerman, Howard	B. A.	Salem
Zimmerman, Mabel	B. A.	Cleone
Zimmerman, Marie	B. A.	Portland
Zimmerman, Olive Hope	B. A.	Cleone
Zimmerman, Rae	B. A.	Portland

SUMMER SCHOOL.

Adams, Grace	Eugene
Ager, G. W.	Talent
Allen, Franklin	Eugene
Allison, Jean K.	Portland
Anderson, Carl F.	Oregon City
Andrew, Norma	Eugene
Andrews, Roy C.	Eugene
Arnold, Frances	Gladstone
Bailey, Walter	Gladstone
Ball, Faye E.	Astoria
Beals, Maude J.	Eugene
Beals, Wm. M.	Junction City
Beaman, Genevieve	Springfield

Bean, Harold C.	Portland
Beck, Callie	Cisne, Ill.
Beebe, Pansy	Eugene
Bell, Daisy	Harrisburg
Black, Lilly	Eugene
Black, Verena	Eugene
Bower, Harry A.	Eugene
Bowerman, Etta A.	Springfield
Brown, Kirk Chas.	Seattle, Wash.
Burke, Thos. A.	Baker
Cake, Ralph	Portland
Calavan, J. E.	Oregon City
Camp, Gertrude	Portland
Campbell, Alberta	Eugene
Campbell, Irmalee	Eugene
Carruth, Frank D.	LaGrande
Carson, James H.	Eugene
Clark, Fay	Eugene
Cobb, Earle S.	Portland
Cole, Grace M.	Wilbur
Cook, Chas.	Eugene
Copenhaver, Lacy	Springfield
Criteser, Edith	Eugene
Datson, Edna Prescott	Eugene
Davis, V. A.	Central Point
Dillard, Delta	Salem
Dobie, Norma	Eugene
Drew, Howard W.	Tillamook
Dunham, Flora	Portland
Duniway, Ruth	Portland
Dunton, Forrest E.	Molalla
Evans, Ethel	Eugene
Fikan, Lizzie	Woodburn
Fikan, Mary	Woodburn
Francis, Mildred	Drain
Gardner, Lillian	Eugene
George, Helen B.	Portland
Gilkey, Lillian	Eugene

Glass, Florence	Myrtle Creek
Greffoz, Hortense P.	Portland
Hager, Celia V.	Eugene
Hair, Mozelle	Ashland
Haley, Essie M.	Eugene
Hamble, Madge	Eugene
Hampton, Gladys	Eugene
Haugen, Oscar	Portland
Hawley, Clark R.	Eugene
Henderson, Sidney R.	Hood River
Hickethier, Mamie	Drain
Hoffman, Hamilton H.	Heppner
Holmes, W. H., Jr.,	Portland
Holst, Mary M.	Salem
Houston, Evans	Albany
Howard, J. Hunter	Portland
Humphrey, Eda	Eugene
Hyde, Hattie E.	Portland
Jeffers, Mrs. P. H.	Eugene
Johnson, Esther	Forest Grove
Johnson, Oscar J.	Boring
Jones, Joseph F.	Portland
Kenyon, Laura H.	Baker
Kernan, John J.	Oak Creek
Kerr, Winifred	Eugene
Kinsey, Beulah	Eugene
Knapp, Emma L.	Aurora
Knapp, Lena	Aurora
Knox, Jane Webb	Portland
Lamm, Donald S.	Jefferson City, Mo.
Lilly, Jennie	Portland
Lowell, William E.	Pendleton
MacDonald, Maude A.	Seattle, Wash.
Mann, Margaret	Springfield
Marquis, Florence	Eugene
McCammon, Ethel	Beaumont, Texas
McCammon, Jessie K.	Beaumont, Texas

McCollins, Clara	Seattle, Wash.
McKown, Imogene	Eugene
Michael, Sam	Baker
Miles, Daniel Nelson	Livingston, Mont.
Moore, John M.	Klamath Falls
Moore, Chester	Portland
Morden, Parks L.	Portland
Morrison, Bessie	Eugene
Mott, Lloyd Howe	Salem
Mott, William B.	Salem
Neubauer, Ferdinand	LaGrande
Nickerson, Edna	Springfield
Norton, Mae Adelia	Portland
Odell, James M.	Portland
Olsen, Olga Eunice	Portland
Osten, Winifred	Portland
Park, Andrew Tyndall	Myrtle Point
Patterson, Minnie	The Dalles
Peterson, E. R.	North Bend
Platt, Ida	Springfield
Potter, Pauline	Eugene
Poulsen, Olga M.	Portland
Powell, Blanche	Cleone
Powell, Margaret	Cleone
Ray, L. Leon	Eugene
Reid, Mrs. C. R.	Eugene
Richardson, Mrs. E. M.	Springfield
Riley, Nona A.	Portland
Roberts, R. Meuric	Salem
Roche, Josephine	Portland
Rolfe, Hazel	Eugene
Ross, Blanche H.	Portland
Rothchild, Joseph M.	Portland
Schoolcraft, Dorothy	Bend
Scullen, H. A.	Eugene
Sheridan, W. P.	Eugene
Shirk, Harrison K.	Enterprise

Shrode, Jettie	Eugene
Shultz, Alice	Springfield
Sigel, Glenn L.	Portland
Simpson, Mabel A.	Woodburn
Smith, Aubrey G.	Lostine
Smith, Erma	Springfield
Snell, Elizabeth	Junction City
Spong, Minnie	Springfield
Stastny, Matthew M.	Jefferson
Stastny, Millie	Jefferson
Sun, Woo	Salem
Taylor, Mary	Moro
Thurston, Blanche	Eugene
Travis, Emma	Eugene
Tschanz, H. C.	Eugene
Van Bibber, Goldie	Hamilton
Van Duyn, Helen	Eugene
Walker, Grace	Springfield
Waterman, Emma Jane	Baker
Watkins, Muriel	Inglewood, Cal.
Watson, Rhoda	Springfield
White, George M.	Portland
Woodard, Olive	Astoria

SCHOOL OF LAW.

FRESHMEN.

Ackerman, W. A.	Portland
Barbare, N. J.	Portland
Barstow, H. S.	Vancouver, Wash.
Boyd, Hugh J.	Portland
Braum, Elizabeth	Portland
Bristow, Aden	Portland
Broomhall, W.	Portland
Brown, A. T.	Portland
Buchanan, Henry	Portland
Buchmann, Elmer J.	Portland

Burns, T. E.	Portland
Burt, E. A.	Portland
Curruzzi, Cyrus	Portland
Cavers, Laura E.	Orengo
Clarke, Dudley	Portland
Condon, Clifton E.	Portland
Coston, Charles	Portland
Cushman, E. S.	Portland
Derr, W. S. T.	Vancouver, Wash.
Dewnes, Marie G.	Portland
Eueba, P. K.	Portland
Fitzwater, Hazel	Portland
Frank, A. M.	Portland
Frazier, Walter F.	Portland
Ganoe, James H.	Portland
Gavin, Celia	Portland
Gillespie, E. J.	Portland
Hawkins, Martin W.	Portland
Hodges, C. M.	Portland
Hohlt, C. W.	Portland
Holbrook, C. E.	Portland
Holcomb, Eliot	Portland
Huckbody, Karl K. L.	Portland
Jaqua, Ina	Portland
Jensen, Fred	Portland
Kane, McKinley	Portland
Kauffman, W. B.	Portland
Kleeman, F.	Portland
Knox, Leland	Portland
Langdon, E. H.	Portland
Lerner, Benjamin H.	Portland
Lundburg, L. V.	Portland
Manning, F. E.	Portland
McClure, Frank	Portland
McDennel, J. Merrin	Portland
McDougal, Clair	Portland
McMath, G. W.	Portland

Messilhiser, O. W.	Portland
Miller, W. B.	Portland
Miner, Harold T.	Portland
Mullin, G. H.	Vancouver, Wash.
Munly, R. M.	Portland
Murphy, W. E.	Portland
Ogden, Melvin Pool	Portland
Peters J. W.,	Portland
Pfingsten, Henry F.	Oregon City
Pryer, P. J.	Portland
Ralston, Basil E.	Portland
Rankin, Merwin	Portland
Rankin, Nettie M.	Portland
Reade, C. H.	Portland
Richmond, W. J.	Portland
Robinson, D. W.	Portland
Robison, Charles W.	Portland
Rosenberg, J. J.	Portland
Rossman, H.	Portland
Ryan, T. G.	Portland
Schwartz, Leon R.	Portland
Singletary, W. R.	Portland
Smith, B. F.	Portland
Smith, Newton C.	Portland
Smith, Seth L.	Portland
Sommers, Max	Portland
Strahan, Frank	Portland
Thompson, P. J.	Portland
Van Tine, D. T.	Portland
Werlein, John E.	Portland
Zimmerman, A. E.	Portland

JUNIORS.

Alexander, J. F.	Portland
Anderson, Lars	Portland
Banks, C. S. J.	Portland
Bechtold, C. C.	Portland

Bernard, E. F.	Portland
Bundy, E. O.	Portland
Burke, J. A.	Portland
Burton, A. H.	Portland
Campbell, P. W.	Portland
Caplinger, C. S.	Portland
Closterman, R. G.	Portland
Cobb, G. A.	Portland
Cooper, J. C.	Portland
Edwards, T. H.	Portland
Fox, J. C.	Portland
Graden, C.	Portland
Garland, Netta A.	Portland
Garland, T. L.	Portland
Graham, D. M.	Portland
Graham, G. C.	Portland
Hickson, John M.	Portland
Latimer, George A.	Portland
Leedon, David Ambler	Portland
Kech, C. F.	Portland
Knight, A. F.	Portland
McDuffee, Leroy Marshall	Portland
McGuirk, W. T.	Portland
McRae, S. E.	Portland
Martin, C. A.	Portland
Massey, Virgil H.	Portland
May, Lydia Alice	Portland
Meyer, Edwin Marion	Portland
Morris, Clyde Martin	Portland
Moore, Arthur Jay	Portland
Munly, Robert Nixon	Portland
Nelson, Emil	Portland
Nicholas, Winn	Portland
Nielsen, Rasmus A.	Portland
O'Brien, Louis T.	Portland
Patterson, Forbes	Portland
Pillsbury, D. C.	Portland

Recken, Louis Albert	Portland
Redman, Wallace	Portland
Schneider, C. G.	Portland
Schroeder, John G.	Portland
Scott, Jesse K.	Portland
Sekiguchi, S.	Portland
Sheahan, W. E. P.	Portland
Sibald, W. H.	Portland
Suren, Fred	Portland
Tomhire, Senichi	Portland
Trew, Arthur S.	Portland
Wakasugi, Kaname	Portland
Whitney, E. H.	Portland
Williams, John Daniel	Portland
Wood, Erskine	Portland
Zimmerman, A. E.	Portland

SENIORS.

Bain, James Ruglin	Portland
Barbour, J. H.	Portland
Bozorth, John L.	Bay City
Brown, Fay Lloyd	Portland
Bump, Daniel D.	Portland
Butler, Beatrice M.	Gresham
Chapman, Edward James	Portland
Coleman, Harry E.	Portland
Cooke, Herbert Alfred	Portland
Dueber, Eugene Anthony	Portland
Farnham, Ross	Portland
Fischer, Paul Christian	Milwaukie
Fryer, Jr., Valentine Alfred	Portland
Gillard, T. Walter	Portland
Gould, Joseph L.	Portland
Hayes, Christopher J.	Portland
Herbring, Karl	Portland
Hogan, Cicero Francis	Portland

Hudson, William Maurice	Portland
Hunt, Frank Carson	Portland
Killough, J. B.	Portland
Layman, Frank	Portland
Mackay, Davis Niscoll	Portland
Mahoney, Paul	Portland
MacKenzie, Aeneas	Portland
McNulty, John Michael	Portland
Montrezza, Mario G.	Portland
Morey, William Adrin	Portland
Parker, Shirley D.	Portland
Pechin, Everett	Portland
Phelps, F. M.	Portland
Platt, Clemmer Webb	Portland
Robbins, William Wallace	Portland
Schaefer, George Michael	Portland
Scott, Jesse K.	Portland
Staples, William J.	Portland
Takeoka, Charles D.	Portland
Uo, Eijiro	Portland
Wagner, Benjamin Franklin	Portland
Witt, William Herman	Portland
Wood, Erskine	Portland
Yates, Bert	Vancouver, Wash.

SCHOOL OF MEDICINE.

FRESHMEN.

Anderson, Walter Raleigh	Portland
Belknap, Horace Preston	Prineville
Blair, Harry Clyde	Elma, Wash.
Collison, Ada L.	Seattle, Wash.
Currin, Oscar Waldo	Portland
Ford, Annistatia Estella	Portland
Ford, Leo Robert	Portland
Harding, Harry Sweek	Tualatin
Harlow, Alfred	Walla Walla, Wash.

Hastings, George Palymara	Portland
Lupton, Irving Martin	Portland
McNerthney, William Bernard	Puyallup, Wash.
Morse, Elsie Jane	Seattle, Wash.
Palmer, Dorwin L.	Portland
Rinehart, Jackson Carl	Portland
Watson, Mark Emery	Gresham
Anderson, Elmer Everett	Portland
Bouvy, Harry Matthew	Ottawa, Kans.
Gardiner, Bessie May	Portland
Hampton, Norman Claude	Canby
Houser, Charles Dorsey	Milwaukie
Larsen, Carl Frederick	Portland
Leeston-Smith, Frederick M.	Portland
Marrotte, Samuel Antoine	Portland
Moffatt, Clinton Charles	Portland
Benbow, Thomas Alexander-Palmer	Victoria, Australia
Partlow, Kenneth Lawrence	Olympia, Wash.
Schwartz, Harry	Portland
West, Melville Abbott	Rosalia, Wash.

JUNIORS.

Brous, Cecil Ellis	Portland
Cahill, Roscoe William	Portland
Glenn, Mary Margaret	Oak Grove
Hughes, John	Portland
Jacob, Mary L.	Portland
Jones, Hinton Denny	Seattle, Wash.
Leonard, Hubert Francis	Portland
Nichols, Frederick Graham	Seattle, Wash.
Noyes, Edward Allen, Jr.,	Portland
Makins, Harry M.	Abilene, Kans.
McKenzie, Hugh S.	Colorado
Miller, Dwight Fronstone	Portland
Moore, Harvard Clayton	Portland
Neuberger, Julius F.	Portland
Rinehart, Harvey Earl	Portland

Shannon, Harry F. McKay	Lents
Sharkey, Ralph Louis	Portland
Thiel, Henry Frederick	Seattle, Wash.
Thompson, Alfred W. Z.	North Yakima, Wash.
Van Cleve, Archie Clifford	Portland

SENIORS.

Barrett, Ira Ellis	Hillsboro
Brookbank, Earl B.	Terre Haute, Ind.
Brooks, Lloyd Wesley	Portland
Butler, Willis Dole	Portland
Hunter, Frederick Robert	Portland
Loeding, Charles Franklin	Milwaukie
McCown, Arthur Clifford	Prosser, Wash.
Murphy, George Everett	Olympia, Wash.
Noyes, Allen Pendleton	Portland
Roberts, Lafayette Oren	Portland
Roach, Luman Samuel	Portland
Ross, Clarence Wesley	Lebanon
Runnalls, Thomas Harris B.	Puyallup, Wash.
Stout, William Taylor	McMinnville
Wang, Stanley Leon	Canby
Younie, Arthur Ernest	Portland

ELECTIVE.

McRae, Roderick Donald	Portland
Trahar, Frank Clifton	Hunters, Wash.

SCHOOL OF MUSIC.

PIANO.

Abrams, Lucile	Eugene
Adams, Frances	Silverton
Alexander, Bess	Goshen
Anderson, Francis	Idaho
Banks, Lily	Thurston
Bean, Marcel	Eugene

Bingham, Grace	Eugene
Bradley, Hazel H.	Portland
Bradford, Mrs.	Los Angeles, Calif.
Bryson, Lyle	Eugene
Bryson, Roy	Eugene
Calkins, Jeanette	Eugene
Calkins, Madge	Eugene
Calvert, Mrs. Hattie C.	Grants Pass
Calvert, Anna	Grants Pass
Casebeer, Lloyd	Eugene
Campbell, Jane	Eugene
Cherry, Irene	Eugene
Cockerline, Kenneth	Eugene
Connant, Maude	Elmira
Davis, Ruth	Eugene
Day, Elsie	Eugene
Day, Helen	Eugene
Denhart, Gertrude	White, S. D.
Dicky, Ruth	Eugene
Dixon, Dorothy	Eugene
Dougherty, Mona	Wallowa
Dunham, Flora	Portland
Fariss, Jessie	Eugene
Fraley, Rita	Eugene
Fraley, Kathleen	Eugene
Frasier, Brownell	Eugene
Frasier, Janet	Eugene
Fitton, Mrs. D. E.	Eugene
Forrest, Ethelyn	Eugene
Geddes, Verna	Eugene
Gilbert, Mrs. James Henry	Eugene
Garrett, Frances	Eugene
Geisler, Raphael	Portland
Gillette, Mamie	Eugene
Gilstrap, Marion	Eugene
Gulliford, Miss	Eugene

Harding, Madelene	Portland
Hawley, Alsea	Cottage Grove
Healey, Mildred	Spokane, Wash.
Hensill, Geneva	Eugene
Hendershott, Emo	Eugene
Hendershott, Mrs. Arthur	Eugene
Holmes, Aileen	Eugene
Howard, Edra	Springfield
Hurd, Roscoe	Florence
Hurlburt, Ellen	Junction
Hyde, Hattie E.	Portland
Kay, Warren	Eugene
Kay, Willis	Eugene
Kendall, Florence	Portland
Kendall, Ada	Portland
Kincaid, Maude	Ashland
Kirk, Florence	Junction
Kirk, Leta	Junction
Lake, Adelaide	Eugene
Lombard, Helen	Eugene
Lombard, Maude	Eugene
Lindley, Pearl	Eugene
Linn, Marion	Eugene
Lucas, Florence	Eugene
Lyans, Richard	Eugene
Macy, Mable	Eugene
Mast, Leta	Coquille
McClaine, Eleanor	Silverton
McCormick, Donald	Eugene
McCormick, Helen	Eugene
McCormick, Mrs. C. C.	Eugene
McGuire, Bertha	Eugene
McMurphey, Lois	Eugene
Metcalf, Bernice	Eugene
Meyers, Carl	Eugene
Mickleeson, Edith	Eugene
Moorhead, Josephine	Junction

Morrison, Bessie	Eugene
Morris, Beatrice	Eugene
Morris, Minnie	Eugene
Murphey, Nell	Eugene
Moses, Ellen	Portland

SOPHOMORES.

Neeley, Norina	Eugene
Newton, Lena	Eugene
Noel, Berenice	Springfield
Parks, Lois	Junction
Parsons, Mrs. M. V.	Eugene
Potter, Pauline	Eugene
Ramage, Mary	Eugene
Shaw, Gwendolyn	Eugene
Spangle, Margaret	Eugene
Stansbie, Muriel	Eugene
Stebno, Beulah	Eugene
Stewart, Irene	Eugene
Stone, Ruth	Portland
Stowe, Marion	Portland
Sweet, Jessie	Coquille
Tinker, Miriam	Eugene
Tooze, Hazel	Oregon City
Turner, Harold	Eugene
Wallace, Miss	Eugene
Watson, Clay	Eugene
Wetherbee, Beatrice	Eugene
Wetzel, Hazel	Eugene
Wetzel, Lucille	Eugene
Wheeler, Dorothy	Eugene
Wheeler, Glen	Eugene
Wheeler, Marguerite	Eugene
Wilkinson, Dorothy	Eugene
Withers, Mabel	Bend
Young, Alice	Eugene
Young, Wilhelmina	Astoria

VOICE.

Abrams, Lucile	Eugene
Anderson, Ella	Eugene
Avery, Florence	Hood River
Basler, Rose	Portland
Beals, Maude	Eugene
Bergman, Annie	Astoria
Bish, Leona	Jefferson
Black, John	Portland
Black, Verena	Eugene
Brunk, Ethel	Eugene
Buell, Edith	San Jose, Calif.
Cleveland, Florence	Portland
Curtis, G. E.	Eugene
Davis, Ruth	Eugene
Dinneen, Lawrence	Portland
Eastham, Valene	Eugene
Fariss, Jessie	Eugene
Frazer, Kenneth	Portland
Fulton, Madge	Astoria
Geddes, Verna	Eugene
Gilkey, Lillian	Eugene
Gilstrap, Cosby	Eugene
Hager, Celia	Eugene
Haugen, Oscar	Portland
Heidenreich, Henry	La Grande
Hendershott, Bessie	Eugene
Holbrook, Helen	Portland
Humbert, Harold	Eugene
Mast, Leta	Coquille
McQuinn, Lucile	Portland
McKown, Hazel	Eugene
McKown, Imogene	Eugene
McLauchlan, Agnes	Portland
Miller, Edna	Klamath Falls

Noon, Alma	Portland
Norton, Mae	Portland
Payton, Alma	Baker
Perkins, Leah	Cottage Grove
Phelps, Gertrude	Ona
Powell, Lois	Eugene
Prosser, Lila	Eugene
Risley, Ethelind	Milwaukie
Scholl, A. P.	Portland
Shepherd, Lucile	Portland
Sherwood, Gretchen	Coquille
Skei, Alfred	Mount Angel
Sweet, Harriet	Coquille
Taylor, Vena	Eugene
Twidwell, Florence	Eugene
White, Lydia	Eugene
Word, Tom	Portland
Yoran, Lucile	Eugene
Young, Wilhma	Astoria

SUMMARY OF OFFICERS AND INSTRUCTORS.

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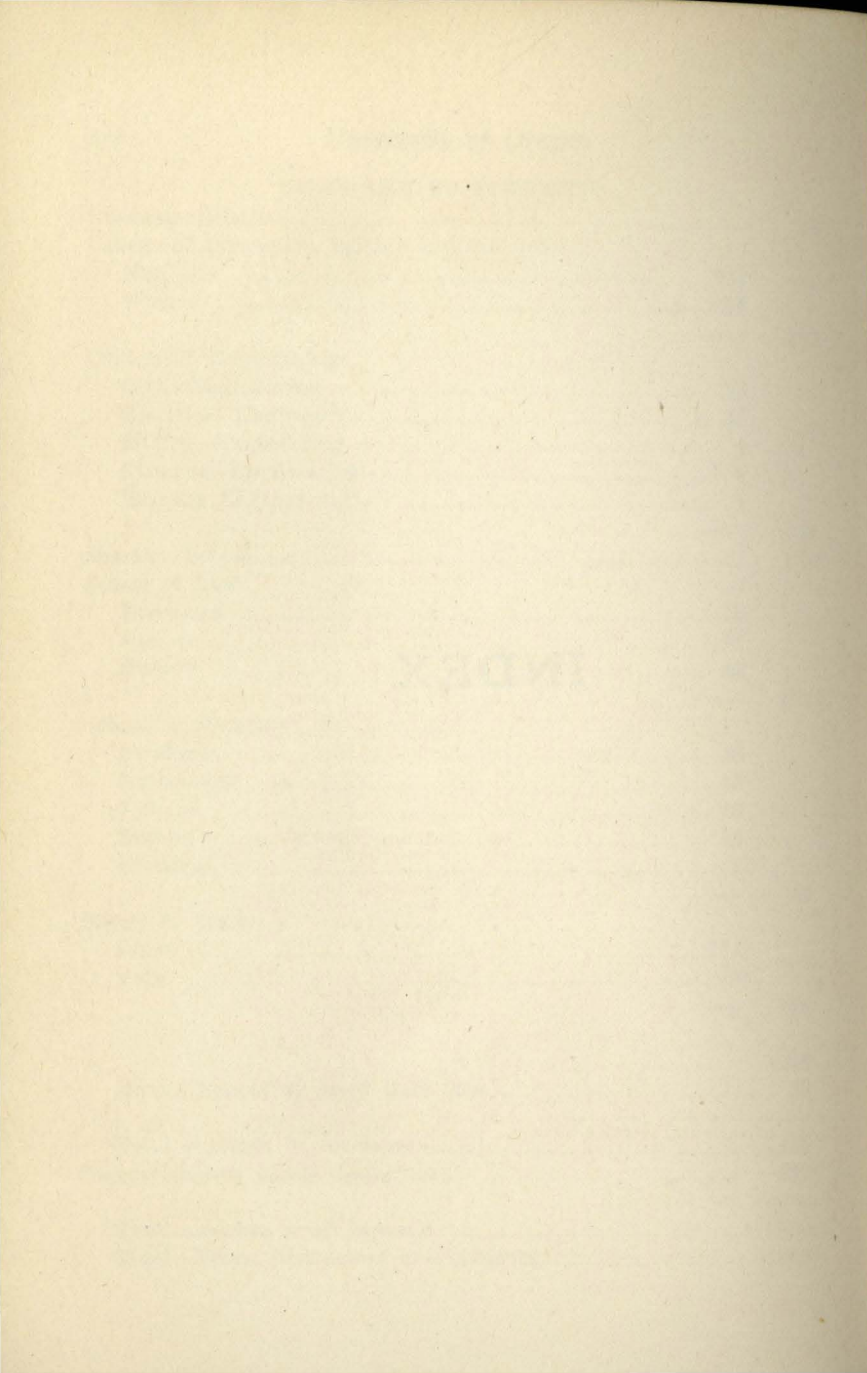
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Total Officers and Instructors	125
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SUMMARY OF STUDENTS.

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College of Literature, Science and the Arts:	
Men	257
Women	296
	553
College of Engineering:	
Civil Engineering	58
Electrical Engineering	39
Mining Engineering	4
Chemical Engineering	1
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	103
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School of Law:	
Freshmen	78
Juniors	57
Seniors	42
	177
School of Medicine:	
Freshmen	16
Sophomores	13
Juniors	20
Seniors	16
Electives	2
	67
School of Music:	
Piano	114
Voice	53
	167
	1228
Names appearing more than once	67
Total students in residence	1161
Correspondence Study Department	327
Total students in all departments	1488
Total officers, instructors and students	1613

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