THE

University of Oregon

CATALOGUE
For the Year 1899-1900

AND

ANNOUNCEMENTS
For the Year 1900-1901

EUGENE, OREGON:
THE UNIVERSITY PRESS
— 1900 —

CONTENTS.

The University Bulletins are published by authority of the Board of Regents during the University year. Bulletins will be sent gratuitously, postage paid, to all persons who apply for them. In calling for Bulletins please state the department of the University concerning which you desire information.

THE PRESIDENT,
University of Oregon, Eugene, Or.

ALMANAC—1900.

JANUARY.

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CALENDAR.

Academic Year 1900-1901.

First Semester—September 19 to February 8.

Second Semester—February 12 to June 20.

Examination of Candidates for Admission—September 17, 18, and February 12, 13.

All theses for advanced degrees and senior parts must be handed in the last Monday in April.

Baccalaureate Sermon—Sunday, June 16.

Class Day—Tuesday, June 18.

Alumni Day—Wednesday, June 19.

Commencement—Thursday, June 20.

Summer Vacation—June 21 to September 18.

Academic Year 1900-1901.

September 19, Wednesday—First semester in Academic Colleges opens.

September 19, Wednesday; September 20, Thursday—Entrance examinations at Eugene for the Academic Colleges and University Academy. Filing of applications and credentials from accredited schools, and of applications for admission to advanced and graduate standing, and to rank as special students.

September 20, Thursday—Payment of incidental fees and recording of receipts with Registrar.

September 21, Friday; September 24, Monday—Committees of the Faculty and instructors in Academic Schools and Colleges keep office hours for consultation with upper class, special and graduate students.

September 22, Saturday, 8 P. M.—Y. M. C. A. and Y. W. C. A. annual reception to students and Faculty.

September 24, Monday—Registration of upper class, special and graduate students for courses of study. Instruction in upper classes begins.

September 25, Tuesday—Registration of freshmen and third and fourth year students in University Academy for courses of study. Instruction begins.

September 27, Thursday—Session of the School of Law begins in Portland.

September 28, Friday, 8 P. M.—Annual reception of literary societies to students and Faculty.

September 30, Sunday, 3 P. M.—Address before Y. M. C. A. and Y. W. C. A.

October 1, Monday—Session of the School of Medicine begins in Portland.

October 3, Wednesday, 9:50 A. M.—Annual address by President of the University.

October 19, Friday—Charter Day; a holiday.

November 2, Friday—Senior reception to students and Faculty.

November 28, Wednesday, 8 P. M.—Annual Glee Club Thanksgiving concert.

November 29, Thursday; December 2, Sunday—Thanksgiving recess of three days.

December 3, Monday; December 4, Tuesday—Examinations in Academic Colleges and University Academy for the removal of conditions.

December 22, Saturday; January 6, Sunday—Christmas vacation.

January 30, Wednesday—Midyear examinations in Academic Colleges begin.

February 8, Friday—First semester ends.

February 12, Tuesday—Second semester begins.

February 12, Tuesday; February 13, Wednesday—Entrance examinations for the Academic Colleges and University Academy. Filing of applications and credentials from accredited schools and of applications for admission to advanced and graduate standing, and to rank as special students.

February 12, Tuesday—Payment of incidental fees by new students.

February 22, Friday—Washington's Birthday; a holiday.

February 25, Monday—Final schedules of graduate students who are candidates for degrees to be filed with Registrar.

April 1, Monday—Graduating exercises of the School of Medicine.

April 1, Monday—Session of the School of Medicine ends.

March 30, Saturday; April 7, Sunday—Easter vacation.

May 3, Friday—Junior Day and Junior Exhibition.

May 20, Monday—Session of School of Law ends.

May 30, Thursday—Memorial Day; a holiday.

June 5, Wednesday—Final examinations in the Academic Colleges begin.

June 16, Sunday, 11 A. M.—Baccalaureate sermon.

June 17, Monday, 8 P. M.—Closing exercises of the School of Music.

June 18, Tuesday, 10 A. M.—Field Day.

June 18, Tuesday, 2:30 P. M.—Class Day.

June 18, Tuesday, 7 to 8—Fern and flower procession.

June 18, Tuesday, 8:15 P. M.—Address before the University.

June 19, Wednesday, 9:30 A. M.—Alumni Day; business meeting.

June 19, Wednesday, 10 A. M.—Alumni class reunions.

June 19, Wednesday, 2:30 P. M.—Alumni dinner.

June 19, Wednesday, 9 P. M.—President's reception.

June 20, Thursday, 9:30 A. M.—Commencement Day.

THE REGENTS OF THE UNIVERSITY.

Name and Address.	Term Expires.
Hon. Salathiel Hamilton, Roseburg	April 1, 1901
Hon. Cornelius C. Beekman, Jacksonville	April 1, 1903
Hon. Cyrus A. Dolph, Portland	April 1, 1903
Hon. William Smith, Baker City	April 1, 1905
Hon. Robert S. Bean, Salem	April 1, 1905
Hon. Charles Hilton, The Dalles	April 1, 1905
Hon. Samson H. Friendly, Eugene	April 1, 1907
Hon. Charles B. Bellinger, Portland	April 1, 1909
Hon. Nehemiah L. Butler, Monmouth	April 1, 1911

OFFICERS OF THE REGENTS.

Hon. Robert S. Bean, President.
Mr. A. Guy Hovey, Treasurer.
Hon. Joshua J. Walton, Secretary.

EXECUTIVE COMMITTEE.

Hon. Samson H. Friendly, Chairman.
Hon. Robert S. Bean.
Hon. Cyrus A. Dolph.

ADMINISTRATIVE OFFICERS.

THE UNIVERSITY.

FRANK STRONG, Ph. D. . . . . President.

NANNA P. PADDOCK . Registrar and Secretary to the President.

SETH HARLEY McALISTER . . . . . Superintendent of Buildings and Grounds.

THE COLLEGES AND SCHOOLS.

JOHN STRAUB, A. M. . . . . Dean of the College of Literature, Science and the Arts.

ARTHUR LACHMAN, Ph. D. . . . . Dean of the College of Science and Engineering.

FREDERICK GEORGE YOUNG, A. B. . . . . Dean of the Graduate School.

SIMEON EDWARD JOSEPHI, M. D., ... Dean of the School of Medicine.

RICHARD HOPWOOD THORNTON, LL. B., ... Dean of the School of Law.

LUELLA CLAY CARSON, A. M., . . Dean of Women.

THE LIBRARY AND GYMNASIUM.

CAMILLA LEACH, ... Librarian.

CHARLES ARTHUR BURDEN, . Director of the Gymnasium.

THE GENERAL FACULTY.*

FRANK STRONG, Ph. D.; A. B., Yale 1884; A. M., Yale 1893; Ph. D., Yale 1897.

President of the University.

JAMES FRANCIS BELL, M. D., L. R. C. P. (LONDON),

Professor of Materia Medica and Therapeutics.

OTTO SALY BINSWANGER, PH. D., M. D.,

Professor of Chemistry and Toxicology.

HON. CHARLES BYRON BELLINGER,

Lecturer on Equity.

THOMAS CONDON, Ph. D.; A. M., Pacific University; Ph. D., Pacific University; Ph. D. University of Oregon.

Professor of Geology.

LUELLA CLAY CARSON, A. M.; University of Oregon and Pacific University.

Professor of Rhetoric and English Literature.

FRANKLIN CAUTHORN, A. M., M. D.,

Professor of General and Descriptive Anatomy.

FREDERIC STANLEY DUNN, A. B.; University of Oregon, 1892; A. B., Harvard University, 1894.

Professor of Latin Language and Literature.

CHARLES FRIEDEL, Ph. D.; A. B., University of Wisconsin, 1882; Student at University of Leipsic, 1887-89; Student Johns Hopkins University, 1892-93; Ph. D., University of Leipsic, 1895.

Professor of Physics.

MICHAEL ANGELO FLINN, M. D.,

Professor of Physiology.

ANDREW JACKSON GIESY, M. D.,

Professor of Clinical Gynaecology.

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

IRVING MACKAY GLEN, A. B.; Graduate California School of Elocution and Oratory, 1889; Graduate California State Normal School, San Jose, 1890; Graduate Elwood Conservatory of Music, 1890; A. B., University of Oregon, 1894; Graduate Student at Johns Hopkins University, 1894-96.

Professor of Early English Literature and Oratory.

HON. WILLIAM BALL GILBERT,

Lecturer on Constitutional Law.

BENJAMIN JAMES HAWTHORNE, A. M.; Randolph Macon College, 1861,

Professor of Psychology.

SIMEON EDWARD JOSEPHI, M. D.,

Dean of the School of Medicine, and Professor of Obstetrics and Nervous Diseases.

HENRY E. JONES, M. D.,

Emeritus Professor of Clinical Gynaecology.

WILLIAM JONES, M. D.,

Professor of Clinical Surgery.

ARTHUR LACHMAN, Ph. D.; B. S., University of California, 1893; Ph. D., University of Munich, 1895,

Professor of Chemistry.

GEORGE LILLEY, LL. D.; A. M. Washington and Jefferson College, 1878; A. M., Illinois Wesleyan University, 1882; A. M., Knox College, 1886; Ph. D., Illinois Wesleyan University, 1882; LL. D., Chaddock College, 1887,

Professor of Mathematics.

EBENEZER BURTON McELROY, Ph. D.; A. M., Christian College, 1883; Ph. D., Willamette University, 1884,

Professor of Logic.

EDWARD HIRAM McALISTER, A. M.; A. B., University of Oregon, 1890; A. M., University of Oregon, 1893,

Professor of Applied Mathematics and Engineering.

KENNETH ALEXANDER J. MACKENZIE, M. D., C. M., L. R. C., P. & L. R. C. S. (EDIN.),

Professor of Theory and Practice of Clinical Medicine.

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

JOHN STRAUB, A. M.; A. B., Mercersburg College, 1876; A. M., Mercersburg College, 1879,
Professor of Greek Language and Literature.

FRIEDERICH GEORG G. SCHMIDT, Ph. D.; Student at University of Erlangen, 1888-90; Student at Johns Hopkins University, 1893-96; University Scholar, 1894-95; Fellow, 1895-96, and Ph. D., 1896,
Professor of Modern Languages and Literatures.

CURTIS CLARK STRONG, M. D.,
Emeritus Professor of Gynaecology.

WILLIAM HENRY SAYLOR, M. D.,
Professor of Diseases of Genito-Urinary Organs and Clinical Surgery.

RICHARD HOPWOOD THORNTON, LL. B.,
Dean of the School of Law, and Professor of the Common Law and the Law of Contracts and Evidence.

ERNEST FANNING TUCKER, A. B., M. D.,
Professor of Gynaecology.

FREDERICK LEONARD WASHBURN, A. M.; A. B., Harvard University 1882; A. M., Harvard University 1895; Graduate Student, Johns Hopkins University, 1886-87,
Professor of Biology.

HOLT COUCH WILSON, M. D.,
Professor of Principles and Practice of Surgery.

GEORGE MILTON WELLS, M. D.,
Professor of Paediatrics.

GEORGE FLANDERS WILSON, M. D.,
Professor of Military and Operative Surgery and Clinical Surgery.

HON. JOHN WILLIAM WHALLEY,
Lecturer on Pleading.

FREDERIC GEORGE YOUNG, A. B.; Johns Hopkins University, 1886; University Scholar, Johns Hopkins University, 1886-87,
Professor of Economics and Sociology.

.....
Instructor in Philosophy and Education.

JOSEPH SCHAFER, M. L., UNIVERSITY OF WISCONSIN,
Instructor in History.

SETH HARLEY McALISTER,
Instructor in Mechanics.

CAMILLA LEACH,
Instructor in Freehand Drawing and the History of Art.

IDA BEL ROE, A. B.,
Assistant in English.

BERNARD E. SPENCER,
Assistant in Chemistry.

ARTHUR CHARLES HIATT,
Assistant in Physics.

WALLIS GIFFORD NASH,
Director of the School of Music.

CHARLES ARTHUR BURDEN,
Director of Physical Education.

MARGUERITE HANSEN,
Assistant in the School of Music.

MRS. W. L. DELANO,
Assistant in the School of Music.

ALBERT EDWARD MACKAY, M. D.,
Lecturer on Bacteriology.

ANDREW CHARLES SMITH, M. D.,
Lecturer on Clinical Surgery.

WILLIAM E. MAXWELL, M. D.,
Lecturer on Dermatology.

ROBERT CLARK YENNEY, M. D.,
Lecturer on Histology and Pathology.

HON. LEWIS BERKLEY COX,
Lecturer on Medical Jurisprudence.

EDWARD PAYSON GEARY, M. D.,
Lecturer on Physical Diagnosis.

CORTES HOLIDAY WHEELER, M. D.,
Lecturer on Hygiene.

JOHN McCARTY BROOKE, M. D.,
Demonstrator of Anatomy.

EDMOND JOHN LABBE, M. D.,
Assistant Demonstrator of Anatomy.

SPECIAL UNIVERSITY LECTURERS, 1900-01.

ARTHUR C. COLLIER, A. M., *Professor of Geology in Willamette University.*

Petrography, Economic Geology and Mining Engineering.

ERNEST BROSS, *Managing Editor of the Oregonian.*

Method and Ethics of Editorial Writing; and Great Editors and Great Newspapers of the Nineteenth Century.

HON. GEORGE H. WILLIAMS, *Portland.*

Topics in Constitutional Law.

ALBERT R. SWEETSER, A. M., *Professor of Biology, Pacific University.*

Fleshy Fungi.

CHARLES A. MORDEN, *Superintendent of the Mechanical Department of the Oregonian.*

The Mechanics of a Newspaper.

EDWARD A. BEALS, *Forecast Official, U. S. Weather Bureau, Portland.*

The Use of Kites in Determining Upper Currents of Air.

JOSEPH R. WILSON, D. D, *Principal of Portland Academy.*

History.

WILLIS C. HAWLEY, *President of Willamette University.*

Topics in United States History.

THOMAS L. ELIOT, D. D., *Portland.*

American Poetry.

WALTER T. WILLIAMSON, M. D., *First Assistant Physician, State Insane Asylum, Salem.*

Neurology.

CHARLES H. MARKHAM, *General Freight and Passenger Agent, Oregon Lines, S. P. Company.*

Railway Transportation.

WALLACE McCAMANT, *Attorney-at-Law, Portland.*
Topics in Constitutional History.

WILLIAM M. LADD, *Portland.*
The Practical Side of Finance and Banking.

HENRY B. THIELSON, *Salem.*
Practical Problems in Civil Engineering.

HON. DAVID P. THOMPSON, *Portland.*
The Relation of Business to Economics.

COMMITTEES OF THE FACULTY.

THE ACADEMIC COUNCIL—The President, Deans Straub, Young, Lachman, Carson, Profs. Condon and Friedel.

THE GRADUATE COUNCIL—The President, Dean Young, Profs. Washburn, Friedel and Glen.

ACCREDITED SCHOOLS—The President, Instructor in Philosophy and Education, and Prof. McAlister.

UNIVERSITY EXTENSION—Profs. Dunn, Schmidt, and Mr. Schafer.

ATHLETICS—Mr. Burden, Profs. Hawthorne and Schmidt.

ADMISSIONS AND SPECIAL STUDENTS—The President, Deans Lachman and Straub.

APPOINTMENTS—Professors Carson, Washburn, and the President.

EXAMINATIONS AND SENIOR CREDITS—Profs. Lilley, Glen, McAlister.

UNIVERSITY LECTURES, 1899-1900.

General Lectures.

STEPHEN B. L. PENROSE, D. D., *President of Whitman College.*
An Oregon Hero.

EMORY SMITH, *Professor of Horticulture, Stanford University.*
Character Building.

Academy of Science Lectures.

ELLEN C. McCORNACK, *Eugene.*
The Tertiary Horse.

EDWARD H. McALISTER, A. M., *Professor of Applied Mathematics and Engineering, University of Oregon.*
Steady Winds.

ARTHUR LACHMAN, Ph D., *Professor of Chemistry, University of Oregon.*
Uses of Electricity in Chemical Manufacturing.

BERNARD E. SPENCER, *Assistant in Chemistry, University of Oregon.*
Insect Wings.

SETH H. McALISTER, *Superintendent of Buildings and Grounds, University of Oregon.*
Philosophy of the Bicycle.

THOMAS CONDON, Ph. D., *Professor of Geology, University of Oregon.*
The Rudimentary Hand.

THE UNIVERSITY.

The University of Oregon comprises the following colleges and schools:

THE GRADUATE SCHOOL.

THE COLLEGE OF LITERATURE, SCIENCE AND THE ARTS:

- The General Classical Group.
- The General Literary Group.
- The General Scientific Group.
- The Civic Historical Group.
- The School of Commerce.
- Collegiate Courses—
  1. Law and Journalism.
  2. Course for Teachers.

THE COLLEGE OF SCIENCE AND ENGINEERING.

- The School of Applied Science,
  1. The Course Preparatory to Medicine and Dentistry.
- The School of Engineering.

THE SCHOOL OF MINES AND MINING.

THE SCHOOL OF MEDICINE, at Portland.

THE SCHOOL OF LAW, at Portland.

THE SCHOOL OF MUSIC.

THE UNIVERSITY ACADEMY.

THE GRADUATE SCHOOL.—In each of the colleges there are advanced courses leading to second and third degrees. These courses are open to graduates of any reputable college, upon presentation of diploma, provided the preparation of the candidate is satisfactory to the Graduate Council.

THE COLLEGE OF LITERATURE, SCIENCE AND THE ARTS contains the general groups of studies leading to the degree of Bachelor of Arts. These courses cover four years.

THE SCHOOL OF COMMERCE offers a four years' course, with special reference to administration of large commercial and manufacturing interests.

THE COLLEGIATE COURSE IN LAW AND JOURNALISM prepares for the study of law, and a special training in history and economics in preparation for journalism.

THE TEACHERS' COURSE is an advanced course for those intending to fit themselves for positions of supervision and teaching in departments of higher education.

THE COLLEGE OF SCIENCE AND ENGINEERING contains the courses in science and engineering that lead to the degrees of Bachelor of Science and Civil, Sanitary, Electrical and Mining Engineer. These courses cover four and five years.

THE COURSE PREPARATORY TO MEDICINE AND DENTISTRY covers two years, and prepares students for the School of Medicine of the University of Oregon and other standard schools. This course enables students to anticipate one year of the course in the schools of medicine and dentistry.

THE SCHOOL OF MEDICINE offers a course covering four years, one of which may be anticipated by the Course Preparatory to Medicine.

THE SCHOOL OF LAW offers a two years' course leading to the degree of Bachelor of Laws.

THE SCHOOL OF MUSIC offers instruction in various branches of instrumental and vocal music and in the theory of music.

THE UNIVERSITY ACADEMY is the preparatory department of the University, and is a part of the University. It now covers the eleventh and twelfth grades of the public high school. In order to fully enter the lowest grade of the University Academy, the student must have finished the tenth grade of the high school.

The University has, however, made arrangements with the Eugene High School to give students, who have just finished the work of the ninth grade, instruction in part of the tenth grade work until the high schools of the state have increased the number of their grades. Students, then, in places where the ninth grade is the highest work possible, may enter the University under the above arrangement.

HISTORY AND ORGANIZATION.

The University of Oregon is an integral part of the public school system of the state, and embraces (exclusive of the University Academy and the Graduate School) the thirteenth, fourteenth, fifteenth and sixteenth grades of the public school system. The University simply finishes the work begun in the grammar and country schools, and continued in the high schools.

Practically the institution opens its doors to all the sons and daughters of the state, and to all students, wherever their homes, without discrimination. The broad, helpful spirit of a real University is seen in its organization and its provision for meeting as many of the needs of the young men and women of the state as possible, provided only that they are prepared for the courses offered.

The University of Oregon was founded by legislative act in 1872, by which act the University was located at Eugene. Regular instruction began in 1876. Eugene is 125 miles south of Portland, on the Willamette river, and at the head of the Willamette valley. It is on the direct line of the Southern Pacific railroad. Eugene is the county seat of Lane county, has 5,000 population, a large high school and excellent grammar schools. The church and society privileges for students are excellent, and the cost of living is low.

BUILDINGS AND GROUNDS.

The University campus is in the southeastern part of Eugene, and covers twenty-seven acres. It is beautifully situated on rising ground, close by the Willamette river, with both the Cascade and Coast ranges in full view.

The following buildings are located upon the University grounds:

DEADY HALL, a three-story brick building, with basement. It was erected and presented by the citizens of Lane county to the state, and named in honor of the late Matthew P. Deady, the first President of the Board of Regents. It contains the biological, psychological and physical laboratories, and, for the present, the chemical laboratory. It also has the departments of Latin, Greek, French and German, Logic and Psychology, together with the halls of the literary societies. In the basement is the gas plant of the laboratories, and the private laboratories of the Professor of Physics and of the department of Physics.

VILLARD HALL was named in honor of Henry H. Villard, of New York city, the greatest benefactor of the University. It is an imposing cemented brick building, and contains the President's office, the Assembly Hall of the University, the very valuable geological collection, and the departments of English Literature, Early English Literature and Oratory, History, Economics and Sociology, Geology and Mathematics.

THE HALL OF MINING AND CHEMICAL ENGINEERING was recently finished, and is admirably adapted to its purpose. It has three floors, with laboratory facilities for 200 students, and will contain the latest appliances for the highest research work in all lines of mining and manufacturing chemistry. It has hoods and ventilators for carrying off gases, and conforms in its arrangement to the most approved methods in the modern teaching of chemistry. It will contain all of the departments of Chemistry, and will make possible a great expansion in mining, metallurgy and assaying. The upper floor will for the present be used as classrooms in other subjects.

THE DORMITORY, a three-story brick building, affords accommodations for about seventy young men. The rooms are all well lighted and ventilated, and will accommodate two students. The whole building is heated by steam and lighted by electricity, has a large dining-room, and all appliances for boarding. The rent for each room is $3.00 per month, or $15 per term, payable in advance at the office of the Registrar. This for the present includes light and heat, and furniture, except bedding. When two students occupy a room, the cost is reduced to one-half the above for each person. The dining-room will be managed by a student association, and it is estimated that the total cost of living may be made to come under $3.00 per week. Students desiring rooms are advised to apply at once to the Registrar, as the pressure for accommodations in Eugene will be unusually great during the year 1900-1901.

The Dormitory also contains the general library, the reading-room, the music-rooms, and the Y. M. C. A. reading and reception-room.

THE HALL OF CIVIL ENGINEERING AND ASTRONOMY is a frame building, situated east of Thirteenth street, and near Collier Hall.

COLLIER HALL, the President's House, is situated upon the part of the campus south of Thirteenth street, and is surrounded by grounds covering nine and one-half acres.

THE UNIVERSITY operates its own electric light and water plants, and gas plant for furnishing gas for the chemical, physical and biological laboratories. It also owns its own printing press and necessary outfit.

THE GYMNASIUM is a brick building of fair size, well equipped for indoor athletic work.

THE SHOP is in the basement of the Gymnasium building. It contains the electric light plant that supplies all the University buildings with light.

THE PUMP STATION is a frame building on the Willamette river, filled with pumping machinery for supplying the University reservoirs with water.

A WEATHER STATION is located on the campus, from which regular reports are sent to the chief weather observer at Portland.

GENERAL INFORMATION

The University year consists of forty weeks, beginning in 1900 on Wednesday, the 19th of September. Commencement Day occurs on Thursday, June 20, 1901. The year is divided on the semester plan.

REGISTRATION.

Students are required to present themselves immediately upon arrival at the office of the Registrar, in Villard Hall, for the purpose of registration. By a rule of the Board of Regents, no student can register without having first paid the incidental fee. Students will register for the number of hours required in their course or group. Mature students of good preparation and excellent health may, with the consent of the Dean of the College to which they belong, and of the Academic Council, take more than the required number of hours, and thus materially shorten the time required for graduation.

TUITION AND FEES.

There is no tuition at the University of Oregon. The incidental fee, payable each year by students in all departments of the University, is $10.00. The fees in the School of Music vary with the instruction.

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

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

EXPENSES.

The expenses for one person for a year vary according to the circumstances of the case, but in general are very low. The cost of living at the Dormitory for young men is as follows: Room, $3.00 per month per room; for two students occupying a room, $1.50 per month each, or 37½ cents per week. Board will be on the co-operative plan, and board and room will cost somewhat less than $3.00 per week, according to estimates. This will include, during the coming year, heat and light. The cost of living in Eugene varies from $3.00 to $5.00 per week. Many students rent rooms and do light housekeeping, thus reducing the cost of living to a very low point. A fair estimate of the yearly expense of those who hire lodgings and board, either in the Dormitory or outside, is $125.00 per year and upward. For those who do light housekeeping, the cost is materially less. Students should plan, however, upon incidental expenses for entertainments, society dues, athletic subscriptions, etc.

Parents expecting to come to Eugene to live while their children attend the University, or expecting to send members of their families to rent rooms and do light housekeeping, are invited to address the President of the University or the Dean of the College of Literature, Science and the Arts, or the Dean of Women, who will render all the assistance possible.

REMUNERATIVE EMPLOYMENT.

There are many ways of earning money while at the University, and in general no young men or women with determination and sufficient preparation, even if they and their people are destitute of funds, need hesitate about entering the University. The University employs a considerable number of students. Others are employed in the Dormitory. There is opportunity for young men or women to help themselves by employment in private families, as stenographers and typewriters, in offices and stores. Students looking for such work should be on the ground early, ready to take advantage of any opening. Address the President of the University, the Deans of the Colleges, the Dean of Women, or the Secretaries of the Y. M. C. A. and Y. W. C. A.

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 of 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. The interests of faithful students and the well-being of the University demand that those who do not conform to these manifest obligations should withdraw from the institution or be excluded. 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.

STUDENT SOCIETIES.

RELIGIOUS.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION.

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

The Y. M. C. A. will offer two special courses in New Testament study. They will be given by young men of the association, under the supervision of some members of the Faculty:

1. The Life and Teachings of Christ, from Sharman's Studies in the Life of Christ and Stevens & Burton's Harmony of the Gospels.

2. The Acts and the Epistles from Bosworth's Studies in the Acts and Epistles, and Burton's Records and Letters of the Apostolic Age.

The association maintains an employment bureau in connection with the Administrative Office, the services of which are free to students in all departments of the institution. In making application for assistance in this line, applicants should state:

1. The kind of work in which they have had experience.
2. The kind they would accept.
3. The amount of time they can give to it.
4. The proportion of the expenses which they must earn.
5. The college and class they expect to enter.

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

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

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

THE YOUNG WOMEN'S CHRISTIAN ASSOCIATION

was organized 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. Informal prayer meetings are held every Wednesday afternoon at 3:00 o'clock, in the association parlors. Officers are chosen the first week of January to serve one year. Any young woman wishing information in regard to the University is invited to correspond with the General Secretary of the association, or Prof. Luella Clay Carson, Dean of Women, who is actively interested in the association.

Parents and pastors are urged to write the President of the University when young men and women are coming to the University that they may be met and assisted in finding homes and introduced to congenial University life. Every endeavor is made to surround students with the best influences of refinement and Christian culture.

LITERARY.

THE LAUREAN AND EUTAXIAN CORPORATION,

composed of the Laurean and Eutaxian Societies, was organized with a state charter, 1877. It was organized to further the literary interests of the societies and the University. It has a hall in which the two societies meet, and a well-selected library of several hun-

dred volumes. The corporation elects annually a corps of officers, whose duty it is to look after the interests of the library of the organization.

PHILOLOGIAN SOCIETY.

The 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 declamation; an extemporaneous address on some current topic; a prepared address of fifteen minutes; and a debate open to all members, with leaders appointed two weeks in advance. The officers are elected for a term of ten weeks; and the meetings are held in the physical lecture-room, at 7:30 on Friday evenings.

SCIENTIFIC.

THE CHEMICAL SOCIETY.

The Chemical Society of the University of Oregon was organized in April, 1900, for the purpose of encouraging the study of current chemical literature. It meets in alternate weeks during the college year. Membership is open to qualified students in chemistry.

ACADEMY OF SCIENCE.

A scientific society, organized January 10, 1896, and composed of the scientific members of the Faculty, advanced students, and others interested in science. Meets once a month for presentation of papers, discussions, etc.

BIOLOGICAL CLUB.

Open to advanced students in the department of Biology. Meets informally once in two weeks, at the home of the instructor, to discuss current biological literature and to read standard works pertinent to the subject.

ATHLETIC.

THE ATHLETIC ASSOCIATION.

The Athletic Association of the University of Oregon, which was organized in 1894, exercises control over all Athletic interests of the University. Under it was organized in 1894 a football team, and in 1895 a track athletic team. In addition to these, the University is represented by a baseball nine, a golf club, a basket-ball team, a tennis club, and an indoor baseball club.

THE INTER-COLLEGIATE ATHLETIC ASSOCIATION

is composed of the different colleges and universities of the state, each being represented at the annual meet at Salem in June.

The University of Oregon has also formed an INTER-STATE ATHLETIC ASSOCIATION with the University of Washington, and annual meets will be held, beginning May, 1900.

MUSICAL.

THE UNIVERSITY OF OREGON GLEE CLUB.

The club is a student organization, open to all students who are successful in the try-out held during the first week of each University year.

A yearly Thanksgiving concert is given by the club; and a tour is usually made during the Christmas holidays by a team of sixteen, selected by the director. During the vacation of 1899-00, the club gave eight concerts in the principal cities of Eastern Oregon and Washington.

The yearly election of officers is held at the beginning of each school year. All officers except the director are chosen from the membership of the club.

The club is under the direction of Irving M. Glen, Professor of Early English Literature, who is also baritone soloist of the club.

TREBLE CLEF.

The Treble Clef, a new musical club for women, was organized during the present year. It consists of sixteen voices, four on each part, and is under the direction of Miss Hansen and Mr. Nash. Regular practice is held throughout the year, and hereafter an annual concert will be given just before the Christmas holidays.

MISCELLANEOUS.

SOCIETAS QUIRINALIS.

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

ALUMNI ASSOCIATION.

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

STUDENT BODY.

The Student Body exercises general control over all student affairs within the University. The general management of its affairs is entrusted to an Executive Committee, consisting of a President, Vice-President and Secretary. Officers are elected at the beginning of the first semester of each college year.

UNIVERSITY AFFILIATION.

The University of Oregon is completing arrangements for a close affiliation of other colleges and universities of the state with itself, whereby their graduates shall pass into the State University upon graduation, with a specified number of credits, and without examination. Such graduates may then pursue advanced courses, either in the Graduate School or elsewhere, with or without being candidates for a degree.

It is hoped to come into cordial relations with every high school or academy, and with every other college or university, in the state. Registrars of other collegiate institutions are invited to address the President of the University to this end.

APPOINTMENT OF TEACHERS

The university, through its Department of Philosophy and Education, conducts an Appointment Bureau for the recommendation of teachers to school officers and superintendents desiring capable teachers. Only such teachers as are students in the university, and especially such as are members of the Department of Philosophy and Education will be recommended. The university has many calls for competent teachers at good salaries which it is not able to meet because of lack of material at the university. These calls are for principals as well as teachers, and the demand is almost always in excess of the supply. This will probably be more and more true because of the rapid development of high schools in the state and of the general school system calling for men and women experienced as principals and superintendents.

School officers are invited to correspond with the Chairman of the Appointment Committee of the University Faculty. All such assistance will be without any expense whatever to school officers and students.

UNIVERSITY EXTENSION.

With a view to the extension of the advantages of the University to teachers and other persons whose engagements will not permit of residence at the University, extension courses of instruction will be offered.

Persons who offer to do systematic work in these courses, and to take examinations in them, will be enrolled as Attendants upon Extension Courses. Attendants who pass satisfactory examinations are entitled to receive from the University Certificates of Record of the work done, which may be credited to them upon their scholarship records, if they subsequently become students of the University.

The University Extension Department of the University of Oregon, as at present organized, carries on its work of giving instruction at a distance from the University in two ways: First, by courses of lectures delivered in person by University instructors; and, second, by individual instruction by correspondence.

I. University Extension Lectures.

University Extension lectures are lectures delivered by University professors and instructors on subjects which they treat in their regular classes.

Under the system adopted by the University of Oregon, the University Extension lectures are delivered only in courses of six lectures. The purpose of delivering the lectures in courses is to concentrate attention upon one subject.

A printed syllabus, free to each student, will give an epitome of the subject considered, an analysis of each lecture, references to the best books on the subject, and other helpful suggestions.

The class, which is held before or after each lecture, furnishes the student an opportunity to question the lecturer and to have special difficulties explained. In the class, the lecturer will take the opportunity to elaborate his subject or to emphasize its salient features.

The lecturer will hold at the end of the course a written examination, which may be taken only by those who have attended the

lectures and classes, read the required books and sent in the required papers.

II. Instruction by Correspondence.

It should be clearly understood that instruction by correspondence is by no means regarded as the equivalent of resident study. It is not so valuable to the student. Experience has shown, however, that earnest students may do good work at a distance from the University when guided by competent instruction by correspondence. There are in every locality teachers, ministers, and men and women of various vocations, who are carrying on the study of certain subjects alone, and who would be glad to avail themselves of the guidance of a University instructor. There are others who would take up and prosecute some line of study if they could have competent guidance, but who do not feel able to carry on any study without guidance. Some are looking forward to a college course and would like to prepare themselves for admission; others would like to do a part of the college work in absence, thereby shortening the time of residence required for a course. For these various classes of persons and all others who desire to receive guidance in some line of study by correspondence, whether with a view to receiving University credit or not, the University of Oregon offers instruction by correspondence.

University Credit for Work Done by Correspondence.

1. When a student has completed any course of study by correspondence satisfactorily to the instructor, he will be given a certificate for the work done.

2. If he wishes this work to count on the books of the University toward a degree, he must pass the regular examination for admission to one of the regular courses or groups of the University. He must also pass, ordinarily at the University, a special examination on the work done by correspondence.

3. For the Bachelor's degree not more than one-half of the required work may be performed by correspondence.

4. For the Master's degree not more than one-half of the required work may be performed by correspondence, except in the case otherwise provided for of the Master's degree *in absentia*.

5. For the Doctor's degree not more than one-third of the required work may be performed by correspondence.

EXPENSES.

1. Extension Lectures: The expenses of the lecturer and five dollars per lecture, which is less than one-half the usual fee.

2. Instruction by Correspondence: The fees vary from ten dollars for a full course to two dollars for the minimum course.

All fees are payable in advance.

For particular information about any point address the President of the University or the Chairman of the Committee on University Extension, University of Oregon, Eugene, Oregon.

PRIZES AND HONORS.

The following prizes in Oratory are annually offered:

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

The Beekman Prize, not to exceed one hundred dollars, is the income from 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.

Candidates for the B. A. or the B. S. degrees, whose average scholarship during their Sophomore and Junior years has not fallen below C, may compete for the Failing and Beekman prizes if they have complied with the following conditions: Two years' residence at the University; the Junior and Senior courses in orations; two courses in public speaking above course 1.

Three type-written copies of the competing orations, signed with an assumed name (the real name being filed at the same time in a sealed envelope), must be in the hands of the Academic Council on the first Monday in April.

Honors will be assigned to graduates as follows:

Students shall graduate *summa cum laude* when at least half their credits rank A and none rank below B; *magna cum laude* when no credits rank below B; *cum laude* when at least half their credits rank B and none below C; when a student's credits rank lower than any of the above he graduates *rite*.

LIBRARY AND READING ROOM.

The Libraries of the University contain about 10,000 volumes. The growth of the General Library is slow, because of entirely inadequate funds. Numerous and valuable additions, however, have been made to the library this year. The Dewey system of classification has been adopted, and a card catalogue enables students to make ready use of the books. The Library is a depository for all documents published by the Government at Washington, and receives a large number every year.

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

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

THE UNIVERSITY READING ROOM contains a large assortment of American and foreign newspapers and periodicals. The number will be added to as rapidly as the funds permit. They now include weekly and monthly magazines and reviews on general Literature, Sociology, Political Science, History, Economics, Chemistry, Biology, Physics, Engineering, Education, Philosophy, Psychology, French and German, etc.

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

PUBLICATIONS.

THE OREGON WEEKLY is published each Monday during the College year by the Eutaxian, Laurean and Philologian Literary Societies. The paper is devoted to general college news, and aims to keep the students, faculty and alumni posted concerning the

every-day happenings at the University and neighboring institutions. The staff consists of an editor-in-chief, with two associate editors, and a managing editor, with two assistants. The various members of the staff are elected by the three Literary Societies at the beginning of the second semester of each year. The general management of the paper is entrusted to an executive committee, consisting of one member from each Society.

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 and friends.

UNIVERSITY OF OREGON PUBLICATIONS.

Eastern Oyster Culture in Oregon. *Popular Science Monthly*, December, 1899, by Prof. Frederick L. Washburn, Professor of Biology and State Biologist.

Some Winter Birds of Western Oregon. *Report of State Biologist, June 30, 1899.*

Present Condition of the Eastern Oyster Experiment and the Native Oyster Industry. *Report of State Biologist, January 30, 1900.*

Spawning Habits of Razor Clam and Bearing of Same Upon Legislation for Its Protection. *Report of State Biologist.*

A Contribution to Our Knowledge of the Food Fishes of the Oregon Coast. *Report of State Biologist.*

UNIVERSITY BULLETINS.

The University expects to put out during the coming year and hereafter, bulletins for schools in the state on Nature Study, Chemistry, Botany, Physics, English and History. It will be the purpose of these bulletins, written by specialists in their various lines, to suggest material and methods, reference or text books, and apparatus, i. e., what ought to be purchased first, where it may be had cheapest, with prices, or how it may be made at home. In English, lists of classics published in inexpensive form, tabulated approximately as to grades, will be given; and in History, selections from the sources will be undertaken, suitable for use in high schools and colleges.

GRADUATE SCHOOL.

FACULTY.

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

ORGANIZATION.

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

ADMISSION.

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

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

REGISTRATION.

The applicant shall, in order to register, file with the Registrar his registration card granted by the Council, and pay the incidental fee of ten dollars.

DEGREE OF DOCTOR OF PHILOSOPHY.

Beginning with the year 1900-1901, the degree of Doctor of Philosophy will be open to graduate students under the following conditions:

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

2. He must make application to the Dean of the Graduate School before the 1st day of October preceding the commencement at which he intends to present himself for the degree, and must then give satisfactory evidence of his ability to read such German and French as may be necessary for the proper prosecution of his studies.

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

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

THE MASTER'S DEGREE.

The degree of Master of Arts or Master of Sciences will be granted only after at least one full year's graduate work. The

candidate must have completed with high credit seventeen hours per week or their equivalent chosen from the courses of graduate study; other courses may be offered only by the special consent of the departments concerned, and with the approval of the Graduate Council; but courses for which a professional certificate or diploma is given will not be counted toward this degree. Work may be confined to a single department, and may not be distributed among more than three.' Not later than the 15th of May preceding the commencement at which the degree is to be taken, he must present to the head of the department in which his chief study has been a typewritten thesis which must embody scholarly research on some topic connected with that study.

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

ENGINEERING DEGREES.

Bachelors of Science in Engineering of this University, or other colleges or universities of equal rank, may receive at the expiration of one additional year of study the professional degree of Civil Engineer, Electrical Engineer, Chemical Engineer or Mining Engineer, whichever is appropriate to the undergraduate course, in accordance with the rules laid down for the five-year courses in the College of Science and Engineering.

Bachelors of Science in Engineering may receive the professional degrees 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 design, construction or operation of engineering works, and who shall furnish details of satisfactory evidence as to the nature and extent of this practice.

They must submit an engineering thesis accompanied by detailed explanations, drawings, specifications, estimates, etc., embodying the results of their work or observations. If approved, the thesis and all accompanying material shall be the property of the university. All theses for any degree must be delivered to the

Dean of the College of Science and Engineering on or before the 15th day of May.

All candidates for degrees of any kind must upon being recommended for such degree pay the diploma fee.

COURSES OF STUDY.

The Courses of Study offered to graduate students are given under the various departments of instruction.

Students contemplating graduate work are invited to address the President of the University or the Dean of the Graduate School.

FELLOWSHIPS AND SCHOLARSHIPS.

A system of fellowships and scholarships has been established for departments needing additional assistance in instruction. The fellowships and scholarships are not gifts from the state to candidates, but provisions under which assistance may be rendered the University at the same time that the holder gains for these services necessary experience and a mastery of the line of work to which he is appointed.

1. Fellows and scholars may be appointed without stipend on the ground of high attainments. They shall be excused from the payment of all University fees and shall in return render services to the University in instruction or otherwise to not exceed two hours per week.

They shall preferably be called upon for necessary additional instruction, and shall then be paid for their services as stated below.

2. Fellowships may be awarded to candidates for higher degrees who shall have had at least one year of successful resident graduate work, along the special line in which the appointment is made, in this University or in some other institution of equivalent requirements. Fellows shall be appointed by the Regents on recommendation of the President of the University, and the head of the department concerned. Each appointment shall be for one year, but may be renewed twice. The compensation for the actual service rendered in class instruction or otherwise, over and above the two hours before mentioned, shall be paid according to the character of the services, but in no case shall the amount exceed two hundred dollars per year.

3. Scholarship may be awarded to any candidate for a higher degree, and for exceptional reasons, to undergraduates, in the manner described above. The compensation for services rendered by scholars, over and above the two hours before mentioned, shall not exceed one hundred dollars per year.

THE COLLEGE OF LITERATURE, SCIENCE AND THE ARTS; THE COLLEGE OF SCIENCE AND ENGINEERING; THE SCHOOL OF MINES AND MINING.

THE FACULTY.

The Faculty of each school or college consists of the President of the University and the resident Professors, Assistant Professors, Lecturers and Instructors giving instruction in the College.

REQUIREMENTS FOR ENTRANCE.

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.

For students entering in September, 1900, this requirement will not be rigidly enforced, provided candidates bring a detailed statement from the principal or other officer of the school as to the work done, text-book used, number of weeks spent in each subject, number of recitations per week, and length of each recitation.

ACCREDITED SCHOOLS.

All students from accredited schools will be admitted without examination upon presenting (after the year 1900-1901) a certificate from the Principal or Superintendent upon the form furnished by the University.

No list of accredited schools will be published until after September, 1900. The Instructor in Philosophy and Education and the President of the University will during the year 1900-1901 make up a complete revised list of all public and private schools accredited to the University. School authorities are urged to provide for at least a two years' high school course, and to use as a model the suggestive courses in the High School Manual, to be issued by the State Superintendent of Public Instruction and the President of the University. This manual may be procured by addressing the Registrar.

All public and private schools whose work covers at least two years of the high school course, in Oregon, California, Washington, Idaho and Nevada, will be accredited to the University upon proper credentials, and their students admitted without examination.

For September, 1900, no student who has completed an equivalent of two years' high school work, or is eligible as a special student, or as a ninth-grade student, under conditions noted elsewhere, need hesitate to present himself for entrance to the University.

In the following list of subjects required for entrance, a credit is counted as one recitation per week for one year. The length of the recitation period should be at least forty minutes. A total of sixty-two credits is necessary for entrance to the Freshman year.

GENERAL LIST OF ENTRANCE SUBJECTS.

1. Subjects required of all candidates: English (14 credits); History (4 credits); Mathematics (14 credits); Science (4 credits).

2. Requirements for entrance to GENERAL CLASSICAL and GENERAL LITERARY GROUPS of College of Literature, Science and the Arts: *All of Section 1, and groups C and either A or B of the following:*

A Latin (17 credits), and French (5 credits), or German (5 credits). For both groups.

B Greek (13 credits), and French (9 credits), or German (9 credits). For General Classical group alone.

C Elective (4 credits). One four-credit elective or two two-credit electives. For both groups.

3. Requirements for entrance to GENERAL SCIENTIFIC and CIVIC HISTORICAL GROUPS of College of Literature, Science and the Arts: *Section 1, and groups D and either A, B or C of the following:*

A Latin (17 credits).

B Latin (9 credits), and French (9 credits), or German (9 credits).

C French (9 credits), and German (9 credits).

D Elective (8 or 9 credits). Two four-credit electives, or one four-credit and two-credit electives. Or one four-credit, one three-credit and one two-credit electives in case A is offered for entrance.

4. Requirements for admission to all courses in the COLLEGE OF SCIENCE AND ENGINEERING AND THE SCHOOL OF MINES AND MINING: *All subjects in Section 1, and D of Section 4, and either A, B or C of Section 4.*

A Latin (9 credits).

B French (9 credits).

C German (9 credits).

D Elective (17 credits). At least two four-credit electives, and the balance of the seventeen credits in two and three-credit electives.

Reasonable equivalents to a limited degree will be allowed; provided the subjects offered as equivalents be high school subjects from text-books satisfactory to the University, with laboratory work where the subject allows, and be taken continuously for at least twelve weeks, four times a week.

Until further notice the Latin, Greek, French or German may be done at the University and counted as college work where the candidate offers the required number of entrance credits besides the subjects named. But candidates for entrance to the College of Science and Engineering may count the second year only of Latin, French or German as college work, and must count the first year toward entrance credits.

In like manner the Botany, Chemistry and Physics may be taken at the University and counted as college work under the conditions laid down under the General Groups of the College of Literature, Science and the Arts. But candidates for entrance to the College of Science and Engineering must count either Chemistry or Physics as a preparatory subject, as follows: Candidates for the courses in Civil and Sanitary and Electrical Engineering must count Physics (first year) as an entrance subject, and may take Chemistry (first year) as a college subject. Candidates for the courses in Mining and Chemical Engineering must count Chemistry (first year) as an entrance subject, and may take Physics (first year) as a college subject.

Candidates may be allowed to enter with a limited number of conditions, subject to the approval of the President and Committee. In exceptional cases candidates, especially teachers, of mature minds, good health and strong powers of application, who lack the required number of credits, may at the discretion of the President be admitted under such conditions as he may deem best.

DETAILED LIST OF ENTRANCE SUBJECTS.

ENGLISH (14 credits). Four recitations per week for the first two, and three for the last two years of the high school course.

No candidate will be accepted in English without condition whose written work is notably defective in spelling, punctuation, grammar and structure of sentences and paragraphs.

ENGLISH COMPOSITION. After June, 1901, all candidates from schools not accredited to the University in English Composition will be required to write not less than one hundred words on each of three topics chosen by him from a considerable number, perhaps ten or fifteen; and two of the topics chosen must be from the books assigned for general reading and composition work under ENGLISH LITERATURE.

ENGLISH LITERATURE. This work includes (1) the reading of books for general reading which are also to be used as a basis for composition work; and (2) the reading of a few masterpieces for thorough study. The written statement of the teacher that the books in (1) have been read will usually be accepted; otherwise tests in addition to the work under English Composition will be required. In regard to books in (2), after June, 1901, all candidates from schools not accredited in English Literature will be required to write not less than two hundred words on some one topic, and a paragraph or two on a second topic, chosen by him from a list selected from Books for Thorough Study. These books are to be critically read and studied in class, with reference to 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.

Exercise books properly certified by the instructor, sent direct to the University by schools accredited in English Literature, will be accepted in lieu of the examination.

1. Books for General Reading and Composition Work:

1900

Addison: De Coverley Papers. Cooper: Last of the Mohicans.
Scott: Ivanhoe. Dickens: Christmas Carol.
DeQuincey: Revolt of the Tartars. Tennyson: Enoch Arden.
Lowell: Vision of Sir Launfal.

1901, 1902.

Shakespeare: Merchant of Venice.
Coleridge: Ancient Mariner.
Scott: Ivanhoe.
Tennyson: The Princess.
George Eliot: Silas Marner.
Lowell: Vision of Sir Launfal.
Cooper: Last of the Mohicans.
Franklin: Autobiography.
Whittier: Snowbound and other Poems.
Holmes: Selected Poems.

1903, 1904.

Shakespeare: Julius Caesar.
Addison: De Coverley Papers.
Goldsmith: Vicar of Wakefield.
Coleridge: Ancient Mariner.
Longfellow: Tales of the Wayside Inn (Series I).
Hawthorne: House of the Seven Gables.

1905.

Scott: Ivanhoe.
Carlyle: Essay on Burns.
Tennyson: The Princess.
George Eliot: Silas Marner.
Lowell: Vision of Sir Launfal.
Burns: Selected Poems.
Emerson: Two Selected Essays.

Note: Under special arrangements equivalents may be substituted for some of these books.

2. Books for Thorough Study:

1900-1901.

Shakespeare: Macbeth.
Milton: Paradise Lost, Books I and II.
Burke: Speech on Conciliation with America.
Macaulay: Essay on Addison.

1901, 1902.

Shakespeare: Macbeth.
Milton: L'Allegro, Il Penseroso, Comus and Lycidas.
Macaulay: Essay on Milton.
Burke: Speech on Conciliation with America.
Lincoln: Gettysburg,
Lincoln: Second Inaugural.

1903, 1904.

Shakespeare: Merchant of Venice.
Milton: L'Allegro, Il Penseroso, Comus and Lycidas.
Emerson: American Scholar.
Webster: Reply to Hayne.

1905.

Burke: Speech on Conciliation with America.
Shakespeare: As You Like It.
Macaulay: Essay on Milton.
Macaulay: Essay on Addison.
Selected: Western Poems.

Note: Under special arrangements equivalents may be substituted for some of these books.

ALGEBRA (7½ credits) — The requirements in Algebra embrace the following subjects: Factors, common divisors and multiples, fractions, involution, including the binomial theorem for positive integral exponents; evolution, theory of exponents, radicals and equations involving radicals, ratio and proportion, elementary logarithms; the ordinary methods of elimination, and the solution of numerical and literal equations of the first and second degrees, with one or more unknown numbers, and of problems leading to such equations.

The work based on the state text-book does not provide sufficient preparation for freshman year.

Work based on any one 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:

Milne's High School Algebra, completed; Lilley's Elements of Algebra, completed; Wentworth's Complete Algebra, completed except chapters 22 to 34 inclusive; Wells' New Higher Algebra, completed, except chapters 36 to 40, inclusive.

PLANE AND SOLID GEOMETRY (6½ credits)—A course based on any one of the following text-books will be accepted; the work to cover five recitations per week for one and a quarter years.

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

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

HISTORY (4 credits)—Four recitations a week for one year. Either of the following:

1. Greek and Roman, with connected geography. (a) Greek History to death of Alexander; (b) Roman History to A. D. 800. The text-book now generally used does not present sufficient matter for preparation for University courses in History. It should be constantly supplemented by use of larger high school text-books, and the following indicate the necessary preparation: In Greek History, Fisher's Growth of Nations, Myers' General History, Adams' European History; in Roman History, Fisher's Growth of Nations, Myers' General History, Adams' European History.

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

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

3. English History—Ground covered by Gardiner's English History for Schools, Montgomery's English History, History of England by Coman and Kendall, and Guest's Handbook.

4. American History—Montgomery's Students' History of the United States, Channing's Students' 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.

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

SCIENCE (4 credits)—Four recitations per week for a year. Either of the following:

1. Botany and Physical Geography.
2. Chemistry.
3. Physics.

Science work to be accepted for entrance to the University must be from a standard high school text-book; thorough laboratory practice is absolutely necessary when the subject allows. Laboratory manuals and note-books must be in constant use, and students coming from schools not accredited to the University must

present their laboratory note-books, signed by the teacher. In Chemistry some text equivalent to Remsen's Briefer Course must be used; in Physics, a text equivalent to Carhart and Chute; in Botany to Bergen's Elements, and in Physical Geography, any standard text.

Schools are recommended to select Physics as the science in which they will prepare students, on account of the smaller expense in fitting a working laboratory.

LATIN (17 credits)—Five recitations per week for the first year, and four per week for the three succeeding years.

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

Second Year—Caesar, 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.

GREEK (13 credits)—Five recitations per week for the first year, and four recitations per week for the two succeeding years.

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

Second Year—Zenophon, four books of the Anabasis.

Third Year—Homer, first three books.

FRENCH (5 credits)—Five recitations per week for one year. Written exercises and grammar work; systematic work in French pronunciation, and as much practice in reading as possible to give facility in reading easy French prose.

GERMAN (5 credits)—Five recitations per week for one year. Written exercises and grammar work and systematic training in German pronunciation. As much drill as possible in rapid reading of German prose and poetry.

ELECTIVES—The electives that may be offered and the time to be given to each are as follows:

Four-credit subjects, i. e., four recitations per week for one year—Botany and Physical Geography, Chemistry, Physics, French, German, Latin, Greek and Roman History, Mediaeval History, English History, American History.

Two and three-credit subjects, i. e., subjects running four times a week for a half year, or three times a week for a whole year—Freehand Drawing, Physiology, Zoology, Astronomy, Civil Government, Psychology, Theory and Art of Teaching, Shop Work (may be taken at the University).

SPECIAL STUDENTS.

Special students not candidates for a degree may be admitted to the University to pursue one or more subjects for which they may be fitted, who fulfill all the requirements for entrance to the freshman year, if the subject or subjects that they desire are college subjects. If the subject or subjects desired are preparatory subjects, then such students shall fulfill all requirements for entrance to the first class of the University Academy, which corresponds to the eleventh grade of the high school course: Provided, that persons of maturity, twenty years of age or over, and teachers in public or private schools, may, at the discretion of the President and Committee on Admission and Special Students, enter as special students without conforming to the above requirements. These requirements shall not apply to special collegiate or other courses where requirements for entrance are specified.

The President and committee reserve the right to discuss the programme proposed by the student, and to suggest such amendments as may in their judgment seem wise. Students other than those of mature years are always required to furnish the committee with evidence that the course proposed subserves a definite object which they have in view.

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

THE COLLEGE GROUPS.

In the College of Literature, Science and the Arts, the University offers four general groups; and in the College of Science and Engineering, five general groups and three technical groups; and in the School of Mines and Mining, one general group, with two subdivisions.

I.

The College of Literature, Science and the Arts.

1. The General Classical Group.
2. The General Literary Group.
3. The General Scientific Group.
4. The Civic Historical Group.

All of the foregoing groups require seventeen hours' work per week per year, and lead to the degree Bachelor of Arts. The main

difference between them is that the first two require two languages besides English, and the last two but one, and devote the extra time to a more extended study of scientific subjects or topics in political science or history.

1. General Classical Group.

	No. of Credits.
Freshman Year—	
Latin (or Elective*)	5
Greek (or Elective*)	5
Mathematics	4
English	4
	18§
Sophomore Year—	
Latin (or Elective*)	4
Greek (or Elective*)	4
English	3
Economics	3
Elective	3 or 4†
	17 or 18
Junior Year‡—	
Latin (or Elective*)	4
Greek (or Elective*)	4
English	2
Elective	7
	17
Senior Year—	
Latin (or Elective*)	4
Elective	13
	17

†Students electing Chemistry or Physics in sophomore year will take one hour per week laboratory work extra. Such students as enter with Chemistry or Physics have the option of deducting one hour from the required credits either in junior or senior year.

*Students entering with four years of Latin will substitute elective work in the place of the Latin in the above list. Those entering with three or two or one year of Latin will substitute a corresponding number of elective years instead of the Latin laid down for these years.

Students entering with one, two or three years of Greek will substitute in like manner.

‡The major elective must be chosen at the beginning of the junior year, and must consist of at least one-half of the elective credits in the junior and senior years in the chosen department.

§Students entering with one year or more of Latin or Greek will have but seventeen hours in freshman year.

2. General Literary Group.

	No. of Credits.
Freshman Year—	
Latin (or Elective*)	5
French or German (or Elective)	5
Mathematics	4
English	4
	18§
Sophomore Year—	
Latin (or Elective*)	4
French or German (or Elective*)	4
English	3
Economics	3
Elective	3 or 4†
	17 or 18
Junior Year‡—	
Latin (or Elective*)	4
French or German (or Elective*)	4
English	2
Elective	7
	17
Senior Year—	
Latin (or Elective*)	4
Elective	13
	17

§Students entering with a year or more of Latin or French or German will have but seventeen hours in freshman year.

*Students entering with Latin or French or German will substitute elective work for the years already taken (see note under General Classical Group). Students taking Latin, French or German as College subjects may take two years of each of any two or four years of any one.

‡Each student must at the beginning of junior year choose a major subject, which must consist of at least one-half of the number of elective credits in junior and senior years in the same

department. Students should elect in sophomore year with a view to their major.

†Students electing Chemistry or Physics in sophomore year will take one hour per week laboratory work extra. Students who enter with Chemistry or Physics have the option of deducting one hour from the required credits of junior or senior year.

3. General Scientific Group.

	No. of Credits.
Freshman Year—	
Latin or French or German (or Elective*)	5
Science	4
Mathematics	4
English	4
Elective	1
	18§
Sophomore Year—	
Latin or French or German (or Elective*)	4
English	3
Science	4
Economics	3
Elective	3
	17
Junior Year‡—	
Latin or French or German (or Elective*)	4
English	2
Elective	11
	17
Senior Year—	
Latin or French or German (or Elective*)	4
Elective	13
	17

*Students entering with Latin or French or German will substitute elective work for the years already taken (see note under General Classical Group). Students taking Latin, French or German as College subjects may take two years of each of any two, or four years of any one.

§Students entering with one or more years of Latin, French or German will have but seventeen hours in freshman year.

‡Each student must at the beginning of the junior year choose a major subject, which must consist of at least one-half of the

number of elective credits in junior and senior years in the same department. Students should elect in sopomore year with a view to their major.

4. Civic Historical Group.

	No. of Credits
Freshman Year—	
Latin or French or German (or Elective*)	5
History	4
Mathematics	4
English	4
Elective	1
	18§
Sophomore Year—	
Latin or French or German (or Elective*)	4
English	3
Economics	3
History	3 or 4
Elective	3 or 4
	17 or 18
Junior Year‡—	
Latin or French or German (or Elective*)	4
English	2
Elective	11
	17
Senior Year—	
Latin or French or German (or Elective*)	4
Elective	13
	17

*Students entering with Latin, French or German will substitute elective work for the years already taken (see note under General Classical Group). Students taking Latin, French or German as college subjects may take two years each of any two, or four years of any one.

§Students entering with one year or more of Latin, French or German will have but seventeen hours in freshman year.

‡Each student must at the beginning of the junior year choose a major subject, which must consist of at least one-half of the number of elective credits in junior and senior years in the same department. Students should elect in the sophomore year with a view to their major.

The School of Commerce.

FACULTY.

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

ORGANIZATION.

The University offers the foundation of a School of Commerce, giving special educational facilities to those who expect to enter commercial life. It is intended to fit young men more thoroughly and definitely for the successful management of large manufacturing and commercial enterprises.

The University courses already offered are so framed that they supply to a considerable degree the necessary training. For this reason no additional classes or instructors will be necessary for two or more years. The training will include the following subjects, many of which are now given at the University: German, French, Spanish, history of commerce, finance, exchange, banking and general economics; theory and methods of transportation; climate, resources and general geography of foreign countries, laws of insurance; elementary engineering, in order to give an accurate general knowledge of the generation and transmission of power; materials of manufacturing; home and foreign methods of business and transportation; history of colonies and colonial administration; political science, with fundamentals of jurisprudence and common law; commercial geography, customs, requirements, etc., etc.

REQUIREMENTS FOR ENTRANCE.

The requirements for entrance to the School of Commerce will be the same as those to any group of the College of Literature, Science and the Arts, or of the College of Science and Engineering. Special students may take subjects in this school under the same restrictions as in other courses.

COURSE OF STUDY.

The course of study will include four years, of seventeen hours per week per year. By a suitable choice of electives two lines of study may be had: Group 1, with especial reference to history, political science, and economics, history of commerce and the problems that large commercial organizations give rise to; Group 2, with special reference to engineering or other topics that deal with the problems of transportation and the materials with which commerce deals in trade with different foreign nations.

The number of credits required for graduation will be sixty-eight, in addition to the entrance credits required, distributed as follows:

1. Required subjects.
2. Elective subjects.
   (a) Group 1.
   (b) Group 2.

The classification of electives will be made at as early a date as possible.

Collegiate Courses.

The University offers two collegiate courses, not leading to a degree, under the College of Literature, Science and the Arts. Students are strongly urged to take one of the regular courses leading to a degree, because of the constantly increasing demands upon professional men and women, which are almost certain to severely handicap those whose training has fallen short of a thorough four years' University course. Nevertheless, for students to whom, for various reasons, a full College course is an impossibility, these courses are offered.

A. COURSE FOR TEACHERS.

This is an advanced course which in no way conflicts with or takes the place of the work of the state normal schools. It provides no training in methods, but aims to offer an opportunity to all regular students who intend to enter the profession of teaching and others qualified to do so, of preparing by special and professional study for positions as superintendents and principals, and as teachers in departments of higher education. It also offers an opportunity to a large body of qualified teachers who wish to increase their efficiency by a study of educational problems in which they are especially interested.

REQUIREMENTS FOR ADMISSION.

This course may be elected by juniors and seniors pursuing regular courses in the College of Literature, Science and the Arts, and in the School of Applied Science; and by graduates of other Colleges and Universities whose credits entitle them to enter the junior or senior class of this University. Such students will receive the degree called for by the group to which they belong, and also the University teachers' certificate. The course is also open to all graduates of state normal schools in courses whose

work entitles graduates to full entrance at least to the freshman class of the University; to all graduates of state normal schools who have had at least one year's experience in teaching; to all graduates of high schools and academies having a three years' course, and who have had at least two years' experience in teaching; and to others who can satisfy the President of the University and the head of the Department of Education that they are qualified to do the work. For the completion of the teachers' course no degree will be granted. The University teachers' certificate will be granted those who complete satisfactorily the teachers' course.

COURSE OF STUDY.

The course covers two years of seventeen hours per week each. Students in the College of Literature, Science and the Arts, and in the School of Applied Science, will take the required work in junior and senior years. Other students who have had less than two years of a language other than English must elect four hours of a language other than English. Students who have not had an equivalent of English included in freshman and sophomore years must elect four hours of English. The remaining hours, over and above the required work, must be apportioned as follows:

1. Special Subjects—Nine hours in the subjects or closely allied subjects that the student expects to teach.

2. Professional Subjects—Eleven hours in psychology, philosophy and education.

3. Elective Subjects—The balance, if any.

B. COURSE PREPARATORY TO LAW OR JOURNALISM.

This course presumes considerable maturity of mind and special preparation. Applicants for admission to the course must meet the requirements for admission to some one of the groups of the College of Literature, Science and the Arts. In exceptional cases students of especial maturity and of strong powers of application, who lack the required number of credits, may, at the discretion of the President, be admitted to this course.

COURSE OF STUDY.

The course of study includes two years of eighteen* hours per week each. The work must be divided as follows:

1. American history and constitutional law, 10 hours.
2. English, 9 hours.

3. Economics, and sociology or political science, 8 hours.
4. English history, 3 hours.
5. Journalism, 4 hours.
6. Elective*, 2 hours.

*Students with excellent preparation and good health may take a greater number of hours, and thus increase the number of elective hours.

II.

The College of Science and Engineering.

For the degree Bachelor of Science.

A. THE SCHOOL OF APPLIED SCIENCE.

1. General Science Group, including psychology, astronomy, and electives in general science.
2. Chemistry.
3. Physics.
4. Biology (botany and zoology).
5. Geology and mineralogy.

SPECIAL COURSE.

1. Course Preparatory to Medicine and Dentistry.

The freshman and sophomore years of groups A 2 and 3 are like the same years of the General Scientific Group of the Bachelor of Arts courses, except that in the sophomore year four hours per week will be given to mathematics, in place of three hours elective work. Students who by reason of this substitution have to carry an extra hour in sophomore year have the option of deducting this from the required number of credits for junior or senior year.

The freshman and sophomore years of Groups A 1, 4 and 5 are like the same years in the General Scientific Group of the Bachelor of Arts courses, except that one hour of freehand drawing must be elected in freshman year.

For all groups under A the work of the junior year is elective, except that four hours per week must be given to either Latin, French or German by students who have had but two years of a language other than English: Provided, that the student must elect seven of the remaining hours in his chosen group, and must carry a total of seventeen hours per week, except as noted above.

For all groups under A the work of the senior year is entirely elective, except that a student must elect nine hours per week in his chosen group, and must carry a total of seventeen hours per week, with the exception noted above.

THE COURSE PREPARATORY TO MEDICINE AND DENTISTRY.

The University offers a Course Preparatory to Medicine and Dentistry, not leading to a degree, which anticipates one year of the Medical School of the University of Oregon; the College of Physicians and Surgeons, San Francisco; Rush Medical College, Chicago; College of Medicine and Surgery of the University of Minnesota; College of Physicians and Surgeons of the University of Illinois, at Chicago; Medical School of Yale University; Cooper Medical College, San Francisco; Marion Sims College of Medicine, St. Louis. Graduates from this course also receive concessions from the Medical School of the University of Pennsylvania and the Medical Department of Johns Hopkins University.

The Course Preparatory to Medicine and Dentistry also prepares students for dentistry, as the first year's work of dental schools is almost identical with that of medical schools. The National Association of Dental Faculties will, at their meeting on July 10 of the present year, act upon a resolution introduced at their last meeting, granting a year's credit to students who have done equivalent work in state universities. There is no reasonable doubt that the resolution will pass.

This Course is offered for those who for any reason find it impossible to complete a full college course before entering a medical or dental school. Students are strongly urged, however, to complete their college course first, for the reason that the intense competition of the present day makes necessary the most thorough preparatory training that can be had; and because the number of medical schools requiring a college diploma for entrance is very large and is rapidly increasing. During the college course students may take as electives the subjects laid down in the Course Preparatory to Medicine and Dentistry, and thus anticipate one year of the medical and dental school.

ADMISSION.

Candidates must present evidence of having satisfactorily completed English grammar, including spelling, capitalization, punctuation and pronunciation; arithmetic and algebra; descriptive and

physical geography; elementary United States history; elementary Latin and one book of Caesar, or its equivalent; and any two of the following: botany, chemistry, physics; which, however, must be strictly laboratory courses in a high school and from a standard text-book.

Certificates from accredited high schools and academies will be received as to the above requirements.

In case the student is unable to get the Latin, botany, physics or chemistry in his home school, he may take them at the University.

COURSE OF STUDY.

The course covers thirty-seven hours of work, as follows:

English	4	Anatomy	2
Latin or Elective*	5	Botany or Elective*†	2
Chemistry or Elective*	4	Human Osteology	4
Physics or Elective*	4	Histology	4
General Biology or Elective†	3	Embryology or Elective†	2
		Physiology	3

*In case it is accepted for entrance.

†In case the medical school elected by the student does not require it.

Chemistry, physics and histology should precede physiology; and histology should be preceded by anatomy. Embryology should be preceded by two years of work in the department of biology. Therefore, only when the student enters with two of the following: chemistry, physics, botany, and with Latin, and in other exceptional cases, can he expect to finish in two years.

SPECIAL EQUIPMENT.

The biological laboratory is provided with a costly set of wax models of the human embryo and chick embryo at different stages of development, made after His's drawings in Ziegler's laboratory at Freiburg. It also has, besides many other things, a kymograph, sphygmograph, manometer, tambours, urinometer, saccharometer, muscle lever, induction coil, time markers, etc. For histology, it has the apparatus for hardening, staining, imbedding and mounting of mammalian tissues; microscopes, microtomes, high power objectives, camera lucida, paraffine baths, etc.

The Medical School of this University offers to graduates of the College of Literature, Science and the Arts, and of the School of

Applied Science of the University of Oregon, of not more than two years' standing, one full scholarship and two half scholarships. A full scholarship includes remission for one entire year of all fees except the matriculation ($5.00), dissecting ($10.00), and examination fees. A half scholarship includes free tuition for one half year, with the exceptions noted above. Candidates for scholarships are recommended to the Faculty of the Medical School by the Faculty of the College of Literature, Science and the Arts, or of the School of Applied Science, after favorable action by a committee made up of the heads of the departments of biology, chemistry and physics.

Further information as to medical schools offering concessions to graduates of the University of Oregon, or of the Course Preparatory to Medicine and Dentistry, may be obtained on application to the Registrar.

B. THE SCHOOL OF ENGINEERING.

1. **Civil and Sanitary Engineering.**
2. **Electrical Engineering.**
3. **Chemical Engineering.**

The courses in B and C are alike for freshman and sophomore years, and begin to differentiate with the junior year. They are also arranged, as will hereafter appear, to cover either four years or five years, and to lead to the degree of Bachelor of Science in Engineering, or to the degree of Civil, Sanitary, Electrical, Chemical Engineer or Mining Engineer.

ENGINEERING—ALL COURSES.

Freshman Year—

Latin, or French or German (Second Year)	4
Mathematics	5
English	4
Chemistry (First Year) for Civil, Sanitary and Electrical Engineers	4
Physics (First Year) for Chemical Engineers	4
Drawing and shop work	4

Sophomore Year—

Mathematics	5
Mathematics	2½
Physics (Second Year for Civil, Sanitary and Electrical Engineers	4

Chemistry (Second Year) for Chemical Engineers 4
Graphic Statics for all but Chemical Engineers 2
Surveying (Elementary) 3
Descriptive Geometry for all but Chemical Engineers 2½
Descriptive Geometry, General Geology, for Chemical Engineers 3½
Graphic Statics, Shop Work, for Chemical Engineers..... 3½
Shop work for all but Chemical Engineers 2

The first year of Latin, French or German may be taken at the University, but must be counted as entrance subject.

In case both years are offered for entrance, the candidate may anticipate four credits of sophomore work, and so on until either the junior or senior year, when he may elect work from any course to the amount of four hours.

CIVIL AND SANITARY ENGINEERING.

The course in Civil Engineering is intended to give the student a sound theoretical and practical training in the fundamental principles of engineering. The courses in mathematics and science necessary for this purpose are thoroughly taught, while the student is made familiar with the use of engineering instruments and with typical problems of practice.

Civil Engineering is the basis of all of the other engineering courses, and the others are in a measure parallel with it. It covers the construction of sewers, waterworks, roads and streets, as well as hydraulics and the development of water power. For this reason the Sanitary Engineering is placed in one course with the Civil Engineering. It covers also Structural Engineering, or the construction of bridges, walls, foundations and buildings; and also Topographical Engineering, which has to do with railroad construction and other works having relation to commerce.

Because of their importance in the development of the state, special attention will be given to questions of irrigation and road-making, and in Sanitary Engineering to the drainage of country districts and towns, and the application of chemistry and biology to the problems of sanitary science.

Junior Year—

History or Economics, 3.
Surveying, Advanced; Railroad Surveying, Geodesy, Topographical Surveying—
For Civil Engineers, 3 hours, both semesters.

For Sanitary Engineers, 3 hours, 1st semester.
General Geology, 4 hours, 1st semester.
Strength of Materials, Structural Details.
For Civil Engineers, 3 hours, both semesters.
For Sanitary Engineers, 3 hours, 2d semester.
Analytical Theory of Trusses; the Design and Construction of Bridges, Roofs and Buildings, 5 hours, 2d semester.
Mechanics, Analytical, with special reference to the practical requirements of engineers, 4 hours, both semesters.

CIVIL ENGINEERING.

Railroad Engineering.

SANITARY ENGINEERING.

City Railways, 2.
Biology of Water Supply, 2.
Water Analysis, 2.

Senior Year—

Analytical Theory of Trusses, 6 hours, 1st semester.
Steam Engine and Power Plant, Steam Boiler, etc., 3 hours, 1st semester.
Masonry, Arches and Dams, Foundations, etc., 3.
Hydraulics and Water Supply, 3.
Economic Geology, 3 hours, 2d semester.
Tunnels and Excavations, 2 hours, 1st semester.

CIVIL ENGINEERING.

Road Engineering, Roads and Pavements, 4 hours, 2d semester.
Rivers and Canals, Irrigation and Water Supply, 4 hours.
Railway Economics, 2 hours, 2d semester.
Thesis, 2 hours, 2d semester.

SANITARY ENGINEERING.

Elective, 2 hours, 1st semester.
Water-works Construction, Pumping, Storage and Distribution, 3 hours, 2d semester.
Heating and Ventilation, 2 hours, 2d semester.
General Principles of Sanitary Science, Drainage of Country Districts and Towns, 2 hours, 1st semester.
Design and Construction of Sewers, Sewage Disposal, 4 hours, 2d semester.
Thesis, 3 hours, 2d semester.

ELECTRICAL ENGINEERING.

The course in Electrical Engineering is based on an advanced study of physics, mechanics and mathematics. It is intended for students who wish to fit themselves for the problems that arise in the application of electricity to manufacturing and the arts. The work is made practical by large use of the laboratory and machine shop in instruction. Especial attention is paid to the application of electricity to the telegraph, telephone, electric lighting and the generation, transmission and utilization of electric power. The courses in mathematics for this course are especially thorough and advanced.

Junior Year—

Mechanics, Analytical 4
Elements of Electrical Engineering, Electromagnets and Dynamos 5
Machine Design, Specialized Engineering Drawing, Engineering Design, Graphic Statics 3
Alternating Currents and Alternating-Current Machinery, Dynamo and Motor Practice 4
Shop Work, Machine Tool Work, Management and Test of Boilers 5

Senior Year—

Thermodynamics, Power Plants, Steam Engine and Boiler 3
Electric Lighting (3 credits), Telephony and Telegraphy (1 credit) 4
Electric Railways 3
Station Management and Estimates 2
Electrical Measurements, Calibration of Electrical Instruments 2
Electrical Testing 1
Hydraulics 3
Thesis 2

CHEMICAL ENGINEERING.

This course will be organized in 1900-1901, or in 1901-1902, according to circumstances. It is designed to give advanced instruction in chemistry, where chemistry touches manufacturing in industries certain to become important in the industrial development of the state. The instruction in industrial and applied chemistry has been arranged with this in view, and while the general chemical principles upon which the operations rest will be taught, attention will also be given to the mechanical operations in various manufacturing processes.

It is intended to supply the skilled labor necessary for industries likely to be especially adapted to the resources of the state, and to supply expert engineers capable of dealing with the problems arising in dye works, bleacheries, tanneries, sugar refineries, paper and pulp mills, the manufacture of fetilizers, soap, heavy chemicals, dye stuffs, alcohol, pharmaceutical preparations, natural and artificial oils, in the distillation of wood, coal, coal tar, and in the manufacture of explosives, glass, porcelain, pottery, etc., etc.

Junior Year—

Chemistry—Quantitative Analysis, 8 hours, 1st semester.
Chemistry—Organic, 8 hours, 2d semester.
Mechanics, Analytical, with Special Reference to Practical Engineering and Thermodynamics, 4.
Economic Geology, 3 hours, 1st semester.
Resistance of Materials and Machine Design, 3 hours, 1st semester.
Machine Tools, Gearing, etc., 3 hours, 2d semester.
Electrical Engineering, Elements, 3.
Elective, 3 hours, 2d semester.

Senior Year—

Chemistry, Organic, 4.
Chemistry, Industrial, 4.
Engineering of Power Plant, 4 hours, 1st semester.
Steam Engine and Boiler, Strength of Materials, 4 hours, 2d semester.
Metallurgy, General, 3.
Hydraulics, or Economics or History, 3.
Chemistry, Manufacturing, 3.
Chemistry, Industrial, or Metallurgy, 3 hours, 1st semester.
Thesis, 3 hours, 2d semester.

FIVE-YEAR COURSES IN ENGINEERING.

Because of the large number of hours required to finish the engineering course in four years, they have been arranged to cover five years of nineteen credits per week, for such students as desire to take fewer credits and longer time. The requirements for entrance are the same as for entrance to the four-year courses, and every subject in the four-year courses comes in the five-year courses, and with very few exceptions in the same order. The Latin, French or German, the chemistry or physics, which in the four-year course must be counted as entrance work, may here be counted as college work.

These five-year courses do not allow of electives, and therefore are not equivalent to the five-year courses leading to the degrees of Civil, Sanitary, Electrical and Chemical Engineering. The degree of Bachelor of Science is conferred on the completion of the courses.

COURSES LEADING TO THE DEGREE BACHELOR OF SCIENCE OR CIVIL, SANITARY, ELECTRICAL OR CHEMICAL ENGINEER.

It is becoming more and more necessary that students taking courses leading to the professional degrees Civil, Sanitary, Electrical and Chemical Engineer should have a more liberal education than can now be given in a four years' course. The University of Oregon, therefore, in company with many other Universities, in order to provide the best possible training necessary for the industrial development of the state, has established five-year courses of nineteen credits per week. The requirements for entrance are the same as for entrance to the four-year courses. Every subject in the four-year courses is included, and other desirable subjects are included as electives. On completion of this work the degree of Civil, Sanitary, Electrical or Chemical Engineer will be granted.

ALL COURSES.

Freshman Year—

Latin, French or German (First Year), or Elective*.....4
Mathematics 5
English 4
Chemistry or Physics (First Year), or Elective*.....4
Drawing and Shop Work 2

Sophomore Year—

Latin, French or German (Second Year), or Elective*.....4
Mathematics 7½
Chemistry or Physics, or Elective* 4
Descriptive Geometry and Shop Work 3½

Junior Year—

Surveying, Elementary 3
Chemistry or Physics, or Elective*.....4
Graphic Statics 2
History or Economics 3
Mechanics, Analytical 4
Shopwork and Drawing 3

* Candidates for the degrees of Civil, Sanitary, Electrical and Chemical Engineer will take Electives in places marked.

CIVIL AND SANITARY ENGINEERING.

Senior Year—

Surveying, Advanced: Railroad Surveying and Geodesy, etc.—
Civil Engineers, 3 hours, both semesters.
Sanitary Engineers, 3 hours, 1st semester.

General Geology, 4 hours, 1st semester.

Strength of Materials.

Stereotomy.

Structural Details.
Civil Engineers, 3 hours, both semesters.
Sanitary Engineers, 3 hours, 2d semester.

Analytical Theory of Trusses; Design and Construction of Bridges, Roofs and Buildings, 5 hours, 2d semester.

Steam Engine and Power Plant, 3 hours, 1st semester.

Hydraulics and Water Supply, 3.

CIVIL ENGINEERING.

Railroad Engineering, 3.

Railroad Economics, 2 hours, 2d semester.

SANITARY ENGINEERING.

General Principles of Sanitary Science; Drainage of Country Districts and Towns, 2 hours, 1st semester.

Biology of Water Supply, 2.

Water Analysis, 2.

Heating and Ventilation, 2 hours, 2d semester.

Post-Senior Year—

Analytical Theory of Trusses, 6 hours, 1st semester.

Masonry, Arches and Dams; Foundations, etc., 3.

Economic Geology, 3 hours, 2d semester.

Tunnels and Excavations, 2 hours, 1st semester.

Design and Construction of Sewers; Sewage Disposal, etc., 4 hours, 2d semester.

Roads and Road Engineering, Pavements, etc., 2.

CIVIL ENGINEERING.

Rivers and Canals; Irrigation and Water Supply, 4.

Elective, 2.

Thesis.

SANITARY ENGINEERING.

Waterworks Construction; Pumping, Storage and Distribution, 3 hours, 2d semester.

City Railways, 2.

Elective, 4 hours, 1st semester.

Thesis.

ELECTRICAL ENGINEERING.

Senior Year—

Elements of Electrical Engineering, 5.
Machine Design and Drawing, 3 hours, 1st semester.
Engineering Design and Graphic Statics, 3 hours, 2d semester.
Dynamo and Motor Practice, 4 hours, 1st semester.
Electric Lighting, 4 hours, 2d semester.
Shop Work, Machine Tool Work; Management and Test of Boilers, 4.
Thermodynamics, 3 hours, 1st semester.
Engineering of Power Plant; Steam Engine and Boiler, 3 hours, 2d semester.

Post-Senior Year—

Electrical Distribution, 4 hours, 1st semester.
Telegraphy and Telephony, 4 hours, 2d semester.
Electric Power, Transmission and Application of Direct Current; Single-phase and Poly-phase, 3 hours, 1st semester; Electric Railways, Design and Operation of Various Systems, 3 hours, 2d semester.
Alternating Currents; Management of Electric Light Plants; Electrical Laboratory, 4.
Hydraulics, 3.
Elective, 3½.
Thesis, 2.

CHEMICAL ENGINEERING.

Senior Year—

Chemistry, Quantitative Analysis, 8 hours, 1st semester.
Chemistry, Organic, 8 hours, 2d semester.
Economic Geology, 3.
Resistance of Materials and Machine Design, 3 hours, 1st semester.
Machine Tools, Gearing, etc., 3 hours, 2d semester.
Electrical Engineering, Elements, 3.
Metallurgy, General, 3.

Post-Senior Year—

Chemistry, Organic, 4.
Chemistry, Industrial, 4.
Engineering of Power Plant, Steam Engine, etc., 4 hours, 1st semester.
Strength of Material, 4 hours, 2d semester.
Chemistry, Manufacturing, 3.
Chemistry, Industrial or Metallurgy, 3 hours, 1st semester.
Thesis, 3 hours, 2d semester.

III.

The School of Mines and Mining.

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

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

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

The demands upon the mining and metallurgical engineer are varied, and it is the policy of the University to give the student the underlying principles of mathematics, physics, chemistry, mineralogy, geology, mining engineering and metallurgy, together with some practical knowledge of civil and electrical engineering and necessary mechanical work. The courses will deal with the problems that actually arise in mining, in the treatment of ores, and in smelting. (See under Chemistry for equipment in mining.)

FOUR YEARS' COURSE, LEADING TO BACHELOR OF SCIENCE.

Freshman Year—

Latin, French or German (2d year)* 4
Mathematics 5
English 4
Physics (1st year) or elective† 4
Drawing and shop work 4

Sophomore Year—

Mathematics 5
Mathematics 2½

Chemistry (2d year) 4
Surveying, elementary 3
Descriptive Geometry, General Geology 3½
Graphic Statics, Shop Work 3½

Junior Year, 1st semester—

Chemistry 4
Mechanics, Analytic, with special reference to practical requirements of engineers 4
Ore Dressing, Milling and Mechanical Preparation of Coal..... 3
Elasticity of Materials of Engineering..... 4
Excavating and Tunneling 3
Surveying, Advanced 3

Junior Year, 2d semester—

Chemistry 3
Mechanics as above 4
Metallurgy, General, History, Definition of Terms, Colorimetry, etc. 3
Assaying, Ores and Metallurgical Products 4
Economic Geology 3
Blowpipe Analysis, Tests 3

Senior Year, 1st semester—

Systematic Mineralogy 4
Engineering of Power Plant, Steam Engine and Boiler..... 3
Optical Mineralogy 2
Boring and Shaft Sinking, Exploration and Development of Mines 3
Metallurgy of Non-Ferrous Metals, etc. 4
Hydraulics and Water Supply 3
Economics or History 3

Senior Year, 2d semester—

Metallurgy of Copper or Metallurgy of Iron and Steel..... 4
Mining Engineering 3
Petrography and Petrology 3
Electro-Chemistry and Metallurgy 2
Practical Laboratory Work—Heat Treatment of Metals, etc.... 3
Economics 3
Thesis 2

* The first year of Latin, French or German may be taken at the University if the student cannot get it at his preparatory school, but it cannot be counted as a college subject. In case both years are offered for entrance, the candidate may anticipate four credits

of sophomore work and so on until junior or senior year, when he may elect work from any course to the amount of four hours.

† Students who offer physics for entrance may take their first year of chemistry in place of physics.

FIVE-YEAR COURSE FOR DEGREE BACHELOR OF SCIENCE, OR TECHNICAL DEGREE OF MINING ENGINEER.

The course in the School of Mines has been arranged to cover five years, both for those expecting to take the degree of Bachelor of Science and those expecting to take the degree of Mining Engineer. The five-year courses are subject to the same regulations as similar courses in the School of Engineering.

Freshman Year—
Same as five-year courses in the School of Engineering.

Sophomore Year—
Same as five-year courses in the School of Engineering.

Junior Year—
Same as five-year courses in the School of Engineering.

Senior Year, 1st semester—

Chemistry 4
Ore Dressing, Milling and Preparation of Coal 3
Elasticity of Materials of Engineering 4
Economic Geology 3
Surveying, Advanced 3
Blowpipe Analysis 3

Senior Year, 2d semester—

Chemistry 3
Metallurgy, General, History, Definition of Terms 3
Assaying, Ores and Metallurgical Products 4
Excavation and Tunneling 3
Systematic Mineralogy 4
Electro-Chemistry and Metallurgy 2

Post-Senior Year, 1st semester—

Engineering of Power Plant, Steam Engine and Boiler 3
Optical Mineralogy 2
Boring and Shaft Sinking, Exploration, and Methods of Working 3
Metallurgy of Non-Ferrous Metals 4

Hydraulics and Water Supply 3
Petrography 2
Elective 2

Post-Senior Year, 2d semester—
Metallurgy of Copper and of Iron and Steel.....4
Mining Engineering 3
Hydraulic and Water Supply 3
Practical Laboratory—Heat Treatment of Metals.....3
Petrology 2
Thesis or Elective 3

COURSES OF INSTRUCTION IN ACADEMIC COLLEGES AND SCHOOLS.

1900-1901.

The following list shows the organization of the courses of instruction. Not all of the courses named can be given in 1900-1901; many are to be given in alternate years. Departments will be developed and the number of courses increased as rapidly as the demand and circumstances permit.

Anthropology.

(See Economics, etc.)

Art.

Miss Leach.

HISTORY OF ART. Outlines of Ancient and Mediæval Architecture, Sculpture and Painting, with some consideration of Modern Art. Lectures and Supplementary Reading.

Biology.

Professor Washburn.

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

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

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

Course 1 is introductory, naturally followed by 2, which, by omitting the Mammalian Anatomy, may be regarded as a culture course; 3 is such a course as is given in the same field to undergraduates at Johns Hopkins and Harvard Universities; 5 is a course in Applied Science (see courses in Sanitary Engineering). Courses 7, 8, 9, 10 are courses preparatory to Medicine, but both 8 and 9 should be taken by those intending to specialize in Biology. The special Zoology courses, 11, 12, 13, 14, must, in the case of undergraduates, be preceded by 1 and 2. Special students may elect any of these at the discretion of the instructor.

Students in the course preparatory to Medicine and Dentistry should observe the following sequence: 1, 2 (or 2 alone), 8, 9, 7, 10. Courses 7, 9 and 10 are well taken in the senior year; 8 in junior year; 1 and 2 in freshman and sophomore years, respectively. No student will be permitted to elect 8 who is not deemed thoroughly competent by reason of previous work.

Students intending to teach are advised to pursue the following order as far as possible: 1, 2, 3, 4. Those intending to specialize in Biology should take 1 and 2, and then be guided in subsequent work as far as possible by their preferences. Students proposing to study Pharmacy should elect 1, 3, 4, and are strongly urged to take most or all of the work in the Course Preparatory to Medicine and Dentistry.

All students in laboratory courses are charged with a laboratory fee sufficient to cover all waste and breakage; i. e., what material in the way of reagents, stains, etc., the student uses, and what apparatus is broken. This does not include the cost of specimens for dissection or material for sectioning. The cost of these is only nominal.

1. General Biology. —Study of types of invertebrate animals and of plants, from simple to more complex forms, with reference to structure and relationship. Intended as an introduction to all other courses in this department, or to be regarded as a culture study, affording a student a general idea of the different phenomena of animal and plant life. Three credits. Lectures and laboratory work.

2. Vertebrate Zoology (with special reference to Mammalian Anatomy.)—A continuation of No. 1. Dissection of verte-

brate types, study of relationships, distribution, habits, etc. A culture course with the addition of special work, as indicated. Students intending to take Histology (8) as a preparation for Medical School work are strongly advised to take this course. No student will be admitted to No. 8 who has not had Mammalian Anatomy. Students must furnish their own material for dissection. Three credits.

A student not desiring to specialize may omit Mammalian Anatomy, thereby earning two credits instead of three.

3. Botany.—Structure and classification of Flowering Plants. Plant Analysis. One credit. Alternates with the following.

4. Botany.—Morphology and Physiology of Cryptogams. Presupposes familiarity with the use of microscope. Course 4 will not be given in 1900-1901. One credit.

5. Sanitary Biology.—Analysis of Drinking Water. First semester spent in No. 1, becoming familiar with the technique of the microscope and the appearance of micro-organisms found in fresh water. Second semester devoted to biological analysis of drinking water, study of animal and plant life (including bacteria) which may affect the odor, taste, appearance and healthfulness of drinking water. Two credits. Laboratory work, second semester.

In the event of a student presenting himself for No. 5 who has already obtained credits in No. 1, this course will be a half course in second semester, and count as one credit. See courses in Sanitary Engineering.

6. Current Literature.—A Journal Club, open to the more advanced students in the department. Students present abstracts of articles in current biological literature and read standard works on Biology. Once in two weeks at home of instructor. One credit.

7. Human Osteology and Syndesmology.—A thorough study of the human skeleton. Must be taken by those intending to anticipate the first year in School of Medicine. The University has an extensive collection of disarticulated human skulls and skeletons. Four credits. Text-book, Gray's Anatomy.

8. Normal Histology.—Lectures, recitations, laboratory work, the latter consisting of the study of the leading tissues of the human body, and preparation of tissues by the individual student, who learns methods of hardening, staining, imbedding, etc. Students wishing to enter this course, who have not had No. 2 may do so, upon the condition that they dissect a dog or

cat (Howell's Dog or Gorham's and Tower's "Dissection of the Cat") under the instructor's direction and outside of the regular hours for Histology. This course must be taken by those intending to enter the second year of the Medical School course. Students must furnish their own material for sectioning. Four credits. Text-book, Piersol's Normal Histology.

A deposit of $4.00 is required in this course to cover cost of chemicals and reagents, stains, etc. One dollar will be refunded upon return of keys and apparatus.

9. Vertebrate Embryology.—Study of embryonic development of chick and comparison with that of other vertebrates. Must be preceded by No. 8. Two credits. A deposit of $4.00 is required in this course, $1.00 of which is refunded on return of keys and apparatus.

10. Advanced Physiology.—Prescribed for those intending to anticipate the first year in the Medical School. No student can elect this course who has not had elementary work in Physics and Chemistry and has not passed satisfactorily in Mammalian Anatomy and Histology. Laboratory work consists of experimentations in salivary, pancreatic and gastric digestion, tests for proteids, bile salts, etc., pulse, apex beat under different conditions, effect of drugs on mammalian heart, qualitative analysis of blood and urine, obtaining glycogen, properties of contractile tissue and nerve, action of cilia, etc.

Each student uses centrifuge, kymograph, sphygmograph, manometer, tambours, time-marker, muscle-lever, induction coil, etc. Two credits.

Text book, Waller's Human Physiology; Laboratory book, Foster and Langley's Practical Physiology. Fee of $4.00, $1.00 of which will be refunded upon return of keys and apparatus.

COURSES FOR GRADUATES, AND ADVANCED UNDERGRADUATES.

11. Ornithology.—Study of the classification of birds. Training in identification, and study of local bird fauna. Incidentally, methods of collecting, preserving, labelling, etc. Four hours a week in first semester.

12. Entomology.—Study of typical insect and groups of insects. Collecting and preserving. A purely culture course; the subject is not considered from an economic standpoint. Four hours a week in second semester. Eleven and 12 alternate with 13 and 14.

13. Icthyology.—Study of type, and classification of fishes. Identification of fishes of State of Oregon. Two credits.

14. Comparative Osteology.—The osteology of the mammalia and comparisons with skeletons of bird, reptile and fish. One credit.

Courses 13 and 14 will not be given in 1900-1901.

15. Morphology and Physiology of the Cell.—Including a special study of the Protozoa. Four, 6, 8 or 10 credits.

16. Invertebrate Morphology.—Special study of invertebrates with reference to phylogeny. Two credits.

17. Comparative Anatomy of Vertebrates.—A comparative study of organs of the vertebrata; circulatory, respiratory, alimentary systems, etc.; structure of head, trunk and limbs, and the bearing of same on problems of vertebrate phylogeny. Three credits.

18. Comparative Neurology.—Study of nervous systems of invertebrated and vertebrated animals, including man. Four, 6 or 8 credits.

Field Excursions.—In connection with courses 11, 12 and 13, field excursions will be made when the season permits.

EQUIPMENT.

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

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

The museum contains a fine series of mounted and unmounted birds and mammals, to illustrate different groups; a collection of Oregon reptiles, made by Mr. J. R. Wetherbee; a series of fish, mostly Salmonidae from the Columbia river, donated by the United

States Government; a collection of food fishes of the Oregon coast, made by Mr. B. J. Bretherton, of Newport, Oregon, and presented to the University.

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

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

Botany.

The department of Botany has not yet been set off from Biology, and is taught in connection with that department. The courses in Botany will as soon as circumstances permit be greatly enlarged. (See Biology.)

Chemical Engineering.

(See Chemistry and Engineering.)

Chemistry.

Professor Lachman.

Mr. ————————.

Mr. Spencer.

The work of the department of Chemistry is intended to accomplish several ends: In the first place, and most important, to give a thorough training in the principles of the science and in laboratory manipulation; secondly, to prepare students for the study of medicine, pharmacy, mining and other subjects in which chemistry plays a large part; and thirdly, to fit teachers with the experience necessary for independent work. Below will be found a full description of the courses of instruction offered by this department.

By order of the Board of Regents, every student in the chemical laboratories must make a deposit of ten dollars before begin-

ning his work, in order to cover charges for chemicals and broken apparatus. The following rules govern this deposit; and no exceptions from them can be made:

1. Ten dollars must be deposited for each course taken; except that for all additional one and two-credit courses after the first only five dollars per course need be paid.

2. This deposit is to be paid to the professor of Chemistry, who will issue a receipt therefor; and no desk will be assigned until this receipt is issued.

3. Each student will receive a key to his desk, and will be responsible for its contents. The desk will contain a supply of apparatus sufficient for the year's work, if reasonable care be used. And all apparatus returned in good condition at the end of the year will be credited to the student's account at full value.

4. Additional apparatus may be obtained at any time by purchasing an order from the professor of Chemistry. These orders will be issued in sums of one dollar; upon presentation the laboratory assistant will exchange them for a dollar's worth of apparatus. Apparatus purchased in this manner will be bought back by the laboratory at any time if returned in good condition. The prices of apparatus, etc., will be posted in the laboratory.

5. Each student will be charged with the approximate cost of the chemicals supplied him, with a proportionate amount of all damage to laboratory property when the responsibility cannot be placed, and with a small sum (usually fifty cents) to cover general wear and tear, etc. At the end of the year, or whenever the student leaves the laboratory, the balance of his deposit, minus the above charges, will be returned to him. The cost of chemicals varies from three to five dollars, according to the nature of the work.

In view of the above regulations, every student intending to take work in Chemistry should come to the University provided with the necessary fees; only in this way can delay be avoided. To enter upon laboratory work after regular instruction has commenced is a serious handicap.

1. Elementary Chemistry.—This course, or a satisfactory equivalent, must be completed before any other work in this department can be taken up. It consists of three lectures and one laboratory period per week, throughout the year. The time required for the laboratory work varies from two to three hours. The course serves as a general introduction to the science, and devotes con-

siderable attention to the practical applications of chemistry to daily life and manufactures. Storer and Lindsay's Manual of Chemistry is used as a text-book. The laboratory work will follow Armstrong and Norton's Laboratory Manual.

Lectures, Monday, Wednesday and Thursday at 11. Laboratory work, either Monday or Tuesday afternoon. Four credits.

2. Analytical Chemistry, Qualitative and Quantitative.—This is a year course, but each half may be taken independently if desired. The first term is devoted to the qualitative analysis of solutions for acids and bases. A. A. Noyes' Qualitative Analytical Chemistry is used as a text-book. Each student is expected to analyze at least ten unknown solutions, in addition to the work in the text. The second term takes up gravimetric quantitative analysis, including several minerals. Talbot's Quantitative Analysis is used as a guide.

One lecture and about 12 laboratory hours per week. Hours to be fixed. Four credits.

3. Organic Chemistry.—Three lectures and one laboratory period per week, throughout the year. This course, while intended chiefly for students making a profession of chemistry, serves as a valuable introduction to the study of medicine, pharmacy and physiology. No one text is followed, the student being expected to refer to several standard works on the subject. The laboratory work serves to illustrate the properties of the substances studied. The course must be preceded by Course 1.

Hours to be fixed. Four credits.

The following courses are usually given for one semester only. They are so arranged that they may be easily grouped together for a year's consecutive work. Courses marked * will not be given for the present.

4. Advanced Analytical Chemistry, Qualitative and Quantitative. —A continuation of Course 2, by which it must be preceded. Complicated minerals are the subject-matter of this course.

Twelve hours per week during the first semester. Two credits.

5. Volumetric Analysis.—A continuation of Course 4. The application of volumetric analysis to minerals, ores and technical products.

Twelve hours per week, second semester. Two credits.

6. Mineralogy.—Blowpipe Analysis. Introductory course. The recognition of common minerals by simple methods. This course

serves as an introduction to assaying, metallurgy and mineralogy proper. Ten laboratory hours per week, first semester. One and one-half credits.

7. Assaying.—The fire assay of gold, silver and lead ores. This course involves the complete assay of actual working ores, as obtained from the mines; sampling, crushing, fusing and cupelling, as well as milling tests.

Twelve laboratory hours per week, second semester. Two credits.

8. Metallurgy.—Four lectures per week on the general treatment of ores in the smelter. Including a brief treatment of the subject of ore-dressing. Must be preceded by Courses 6, 7 and 8.

Second semester. Two credits.

*9. Systematic Mineralogy.—Four lectures per week, including a brief outline of physical crystallography. Introductory to the study of metallurgy. No laboratory work is included in this course, as minerals form the chief materials in the practical analytical work described above. Must be preceded by Course 6.

First semester. Two credits.

10. Industrial Inorganic Chemistry.—A treatment of modern chemical industries, exclusive of metallurgy. Four lectures per week, or their equivalent in outside reading. This course is intended as a supplement to Course 6.

First semester. Two credits.

11. Industrial Organic Chemistry.—Four lectures per week, supplementary to Course 7. It must be preceded by Courses 1, 2, 3, 4 and 5.

Second semester. Two credits.

12. Metallurgy of Gold and Silver.—A special treatment of the methods of smelting refractory gold and silver ores, including cyaniding, chlorination, and other processes. Two lectures per week during the first semester. One credit.

13. Metallurgy of Copper.—Two lectures per week. Matte smelting, electrolytic refining, etc.

Second semester. One credit.

COURSES FOR GRADUATES AND ADVANCED UNDERGRADUATES.

14. Industrial Analysis.—Must be preceded by Courses 4 and 5. The analysis of iron and steel, coal, furnace gases, etc.

First semester. Two credits.

*15. Organic Industrial Analysis.—The analysis of oils, fats, foods, drugs and similar products. Must be preceded by Courses 1, 2, 3, 4 and 5. Second semester. Two credits.

16. Advanced Inorganic Chemistry.—Four lectures per week, devoted chiefly to the metals and rare elements. This course includes a brief treatment of modern chemical theories as applied to Inorganic Chemistry. Freer's General Inorganic Chemistry is used as a guide. Must be preceded by Courses 1 and 2.

First semester. Two credits.

*17. Physical Chemistry.—Four lectures per week. A full treatment of the more important chapters of this subject. This course must be preceded by Courses 1, 2, 3 and 12, by two years' work in Physics, and by a course in Differential and Integral Calculus. While intended chiefly for graduate students, the course is open to qualified undergraduates. Second semester. Two credits.

18. Electro-Chemical Methods of Analysis.—A fuller treatment of the subject. Simple electrolytic methods are included in the previous courses; this course is devoted chiefly to electrolytic processes of separation. In part, this course may be regarded as laboratory work connected with Course 13. It must be preceded or accompanied by Course 13. Ten laboratory hours per week, second semester. Two credits.

19. Advanced Organic Chemistry.—Primarily for graduates. Four lectures and sixteen laboratory hours per week.

First semester. Six credits.

Other courses in Chemistry will be offered as occasion demands in tanning, textile coloring, problems arising in paper and pulp mills, in the manufacture of glass, pottery, etc., etc.

EQUIPMENT.

The Chemical Laboratory at present occupies the whole upper floor of Deady Hall. It consists of two working laboratories, each with 48 desks for students, fitted with hoods, gas and water for all work; of a lecture-room with a seating capacity of 60, equipped with raised floor, lecture table and a good outfit of demonstration apparatus; a balance-room with five balances; and a store-room for general use. Besides these rooms, a large hall serves as an assay laboratory for sampling, mixing, fusing and cupelling ores.

The department of Chemistry will soon occupy its new HALL OF MINING AND CHEMICAL ENGINEERING which has been

specially designed and constructed for this purpose. The building consists of two large wings, connected by an imposing hall and stair-house. The south wing of the basement floor contains a large laboratory for general work, which will be fitted with 90 desks, and a store-room for apparatus and chemicals. Here will be located the still which supplies the laboratory with distilled water. The north wing of the basement contains two small, one medium, and one large room, and will be devoted exclusively to assay work, experimental methods in mining chemistry, and mining engineering. The south wing of the first floor consists of one large laboratory for advanced students, holding 50 desks; of a balance-room; an analytical laboratory for special researches; and of a small office and library for the Director of the laboratory. The north wing of this floor contains a large lecture-room seating 115 people, and a preparation-room for lecture experiments. This lecture-room is without doubt the best-equipped room of its kind in the state. The floor is raised in seven tiers, so that a full view of the demonstration table may be had from every corner. The lecture table will be 30 feet long, fitted with concealed sinks, pneumatic troughs and mercury receptacles, gas, water, oxygen and hydrogen connections, and will be provided with downward draught for removing noxious fumes. In the rear of the table is a sliding blackboard, which when raised gives full view of a hood in the preparation-room; in this hood all dangerous experiments are performed; a sliding glass sash offers complete protection from vapors or explosions. The lecture-room will also be provided with a stereopticon for illustration of mining and chemical factory methods, and all other processes capable of being photographed. The second floor will be used for general class work at present; but, as occasion demands, it will be used by this department for laboratories, store-rooms, museums, and all other needs. The laboratory is ventilated by a ten-foot shaft, besides numerous flues. It will be heated by steam and lighted by electricity.

The laboratory possesses a good working outfit of apparatus and chemicals. Among these the following may be mentioned: Balances; three good balances for general analytical work; one Becker balance sensitive to one-fiftieth milligram; one Ainsworth assay balance sensitive to one-two-hundredth milligram; and a Rueprecht demonstration balance for lecture purposes. Lecture apparatus, such as Hofmann's eudiometers and other instruments. A complete set of Hempel's and Lunge's apparatus for the analysis of gases. A set of seven Anschutz thermometers, and a thermometer with certificate from the Physikalisch-Technische Reichsanstalt in

Berlin; a Glaser combustion furnace; a Lothar Meyer explosion furnace; and a full equipment of Jena glassware, tubing, and all other appliances for advanced work in organic and inorganic chemistry. The laboratory is supplied with gas from a "Detroit" hundred-light gas-machine. In the way of chemicals, about one thousand specimens of organic and inorganic substances are on hand for exhibition and study. The laboratory also possesses a set of 250 well-selected cabinet minerals, fully illustrating all the important natural chemicals, and a supply of over 200 different minerals for analysis and study. This study is aided by a set of Preston's celluloid crystal models. The assay department contains two single Hoskins crucible furnaces, a double crucible furnace, and three Hoskins muffle furnaces; of these, the largest takes a Battersea "L" muffle holding three dozen cupels. All of these furnaces are worked from a central gasoline tank fitted with pressure gauge. Besides furnaces, all the ordinary equipment for assay work is at hand, such as rock-crusher, bucking-board, sieves, cupel and other moulds, tongs, trays, etc., and an amalgamating mortar for free-milling tests of gold and silver ores. The assay outfit is capable of completing about sixty assays per day.

Freehand Drawing.

Miss Leach.

1. Study of Types of Form in Geometric Solids.

2. Study of Color; using Water-Color as medium.

3. Study of Objects; first, in regard to structure; second, in regard to variation in appearance, as light and shade, aerial and linear perspective.

4. Study of Historical Ornament.

5. Special work in connection with Education.

Economics and Sociology.

Professor Young.

President Strong.

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

The general Introductory Course gives the student the point of view of modern thought in the economic, political and social sciences, and outlines the general course of progress in each line of social achievement through the lower stages of civilization. Prerequisite, freshman standing.

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

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

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

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

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

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

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

A. ECONOMICS.

I.

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

II.

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

Text-books, lectures and collateral reading.

This course should be taken by all freshmen in the Civic Historical course. Two hours, second semester.

III.

1. The Principles of Economics.—Text-books and reports.

Required of sophomores in A. B. courses and of seniors in Engineer courses, excepting Civil and Sanitary. Three hours.

2. Theories of Value.—Production, Consumption, Distribution, Rent, Wages, Profits and Interests.

Text-book and collateral reading. Two hours. Not given in 1900-1901.

IV.

1. History of Economic Thought.—This course is taken up mainly with an analysis and criticism of economic classics. For graduates and advanced undergraduates. Four hours, first semester.

2. Philosophy and Economics.—The relations between philosophical and economic speculation, with their causal interaction, are traced. Bonar's Philosophy and Political Economy will be used as a guide. For graduates and advanced undergraduates. Four hours, second semester.

3. The Financial History of the United States.—For graduates and advanced undergraduates. One hour.

V.

1. Finance, Public Expenditure, Financial Administration, Taxation and Public Debts. Text-book, Adam's Public Finance. Three hours.

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

3. Railway Transportation.—A study of the historical economic and legal phases of the railway as a factor in modern life. For

graduates and advanced undergraduates. Four hours, first semester. Not given in 1900-1901.

4. Modern Industrial Organization.—The tendency toward corporate Organization of Industry and centralization, with resulting modifications of the conditions of competition. For graduates and advanced undergraduates. Four hours, second semester. Not given in 1900-1901.

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

This course is especially for advanced undergraduates and graduates who wish to make a study of Commerce (See School of Commerce). Not given in 1900-1901.

VI.

1. Economic Problems.—Labor and Capital, Profit-Sharing, Corporations, Socialism. For graduates and advanced undergraduates. Two hours. This course alternates with No. 1 of VII.

VII.

1. Statistics.—A course in the theory and methods of statistics, with practical work in investigation and tabulation. For graduates and advanced undergraduates. Two hours. Not given in 1900-1901.

B. POLITICS.

I.

General Introductory Course. See Economics.

II.

1. Political Institutions of the United States.—These are studied with special reference to their practical working. A study of constitutional law. Bryce, American Commonwealth. Three hours, first semester.

2. Political Institutions of Europe.—Comparative study of the governments of Europe, especially those of England, France, Germany and Switzerland. A study in comparative constitutional law. Three hours, second semester.

3. (a) Jurisprudence.—A general course in Elementary Jurisprudence. (b) A study of the Historical Development of the

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

III.

1. Political Science.—The nation and the state; idea, origin, forms and ends of the state. Three hours. Text-book, Burgess Political Science.

2. International Law.—One hour.

IV.

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

2. Municipal Government in Europe and the United States.—Two hours. Not given in 1900-1901.

C. SOCIOLOGY.

I.

General Introductory Course.—See Economics.

II.

1. Elements of Society.—Society as an organization analyzed for a determination of its characteristics. Text book and collateral reading. Two hours.

III.

1. Principles of Sociology and Theory of Social Forces.—As conceived of by leading modern sociologists. Three hours. For graduates and advanced undergraduates.

2. Anthropology.—An introduction to the methods and conclusions of anthropology and ethnology in their relations to the social sciences. Two hours; text books. Not given in 1900-1901.

3. The Social Debtor Classes.—Studies of questions connected with charities, penology and criminology. There hours, second semester. Not given in 1900-1901.

4. Democracy.—Its characteristics and tendencies. Three hours, first semester. Not given in 1900-1901.

EQUIPMENT.

The equipment for the study of Economics and Sociology includes the standard authorities in these subjects, comprising some 500 volumes. In Economic and Industrial History the equipment

in History is available, and the library of the Oregon Historical Society, of several hundred volumes, affords the best possible material for original work in Economics and Industrial History and Theory.

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

Civil and Sanitary Engineering and Astronomy.

Professor McAlister.

Mr. ————.

1. Surveying, Elementary.—Three hours.

2. Surveying, Advanced.—Geodesy, Topographical Surveying. Three hours.

3. Analytical Theory of Trusses; Design and Construction of Bridges and Buildings.—The truss element, simple cantilever and non-continuous trusses with parallel or inclined chords. Fixed and moving loads, chord and web stresses, skew and irregular trusses, bridge and roof trusses. Braced arches and arched ribs. Railway and highway bridges, wind loads and stresses, viaducts and trestles. Continuous trusses and draw spans. Six hours, first semester, and five hours, second semester.

4. Railroad Engineering.—Reconnoissance and preliminary survey. Economics of location, grades and curves, track and switch work. Theory of simple, compound and reverse curves. Three hours.

5. City Railways.—Surveys, designs and systems. Two hours.

6. Masonry, Dams, Arches and Foundations.—Design and construction of retaining walls, stability of masonry structures, of towers and chimneys. Theory and design of arches, reservoir walls, earth and high masonry dams. Three hours.

7. Hydraulics and Water Supply.—Theory of hydraulics, with application to the flow of water through orifices. Weir discharge; gauging of water for systems of irrigation. Design of pipe systems for city waterworks. Flow in and discharge of open canals and rivers. Three hours.

8. Road Engineering, Roads and Pavements.—Survey and location of roads, drainage, grades and foundations. Telford and McAdam pavements, maintenance of roads and pavements. Four hours, second semester.

9. Rivers and Canals, Irrigation and Water Supply.—Improvement of non-tidal rivers, rainfall and storage, flow of streams, influence of soils, elevation and geological character of watersheds, pumping, reservoir construction, filtration. Irrigation of land; amounts and periods of application, construction of and flow through division and distributing canals. Four hours.

10. Waterworks Construction, Pumping, Storage and Distribution.—Parallel in second semester, with 9. Three hours, second semester. Not given in 1900-1901.

11. Heating and Ventilation.—General principles and systems of heating and ventilation, steam, hot water and hot air. Designs for heating and ventilating plants. Two hours, second semester. Not given in 1900-1901.

12. General Principles of Sanitary Science; Drainage of Country Districts and Towns.—Effect of water supply on health; influence of conditions of soil on health, and remedial measures. Disposition of sewage. Surveys for country drainage. Effects of topography and character of materials; surface and sub-surface waters; disposal of drainage waters, etc. Two hours, first semester.

13. Design and Construction of Sewers.—Sewage and surface drainage of cities and towns; separate and combined systems of sewers; capacities of mains and branches; grades, outfalls, flow and discharge of sewers. Four hours, second semester. Not given in 1900-1901.

14. Graphic Statics.—Graphic method of dealing with problems arising in the equilibrium of forces, or as to bodies held at rest, with applications to beams, trusses and arches. For all but Chemical Engineers. Two hours. For Chemical Engineers, with shop work, 3½ hours.

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. Three credits.

2. Spherical and Practical Astronomy.—Lectures, observatory work, and computations. The observatory is provided with a good transit instrument, a sidereal clock, and a sextant with artificial

horizon. The transit instrument is so arranged that it may also be used as a sight-seeing telescope. Three credits.

3. Elements of Celestial Mechanics.—A course developing fundamental principles and theorems of the subject, and designed as an introduction to the following course, or as a preparation for further independent study. Three credits.

4. Theoretical Astronomy.—Fundamental problems in celestial mechanics, including determination of the orbit of a heavenly body from given observed places; correction to be applied to the orbits; special perturbations; determination of the mass of a planet, etc. A knowledge of spherical and descriptive astronomy, differential and integral calculus, differential equations, solid analytical geometry, and the elements of analytical mechanics is required. Five credits.

The courses in Astronomy will not be given in 1900-1901.

EQUIPMENT.

THE HALL OF CIVIL ENGINEERING AND ASTRONOMY is situated on the Collier tract, and contains four convenient and well-lighted rooms. In the astronomical room are located the sidereal clock and the astronomical transit, upon brick piers built independent of the flooring. The transit instrument has a 3-inch objective and 40-inch focal length, and the usual accessories of vertical circle and levels. For sight-seeing, it is removed from the fixed standards and placed upon a special tripod. A fine sextant with artificial horizon also forms part of the equipment.

The instrument-room is used for the various surveying instruments named below, and also contains a large draughting table used in the construction of large maps and drawings. The surveying department is provided with the following instruments: Surveyor's transit, Burt's solar compass, plane-table with the best modern improvements and attachments, compass with graduated limb reading to minutes, vernier compass, engineers' y-level, sextant, polar planimeter, mercurial barometer, aneroid barometer, 8-inch vernier protractor reading to minutes; leveling rods, ranging poles, engineer's and Gunter's chains, steel tape, etc. There is on the same floor a lecture and recitation-room, which is provided with celestial, terrestrial and slated globes.

The second floor is used exclusively as a draughting-room, and is fully equipped with tables, sets of first-class instruments, water-colors, colored inks, blue-print apparatus, a fine section-liner, and a few standard works on drawing.

Electrical Engineering.

Professor Friedel.

Mr. Hiatt.

1. Elements of Electrical Engineering: Electromagnets and Dynamos.—This course develops the fundamental theories of magnetic lines of force, the laws of magnetic circuits, and the theory of the direct current dynamo. Five credits.

2. Alternating Currents and Alternating Current Machinery; Dynamo and Motor Practice.—The theory of the alternating current; the designing and the constructing of alternating current dynamos, transformers and motors; methods of testing alternating current machinery; application of single-phase and poly-phase systems. Four credits.

3. Transmission of Power and the Electric Light.—A careful study of the losses due to the resistance of conductors, the development and utilization of high potential currents, the erection and cost of distributing lines, and the important features of arc and incandescent lamps. Three credits.

4. The Telegraph and the Telephone.—Various systems of telegraphic communication, such as multiplex, autographic, and wireless; the telephone, telephone central stations, and telephone lines. One credit.

5. Electric Railways.—A study of the methods of designing, installing, and operating electric railways. Three credits.

6. Station Management and Estimates.—The cost of power and generating plants, selection and cost of distributing lines; selection and economical management of electrical machinery. Two credits.

7. Electrical Measurements.—A laboratory course for the development of skill and efficiency in the use of various electrical instruments, such as galvanometers, voltmeters, dynamometers, potentiometers, electrometers, etc. One credit.

8. Calibration of Electrical Instruments.—The practical calibration of rheostats, galvanometers, ammeters, voltmeters, wattmeters, condensers and sechometers. One credit.

9. Electrical Testing.—A laboratory course for the experimental study of electrical circuits, dynamos, and motors; the plotting of characteristic curves, and the determination of the efficiency of dynamos and motors. One credit.

10. Thesis.—Description of investigations and measurements. Two credits.

11. Graduate Courses.—Advanced courses will be given in Electrical Engineering laboratory, as called for.

EQUIPMENT.

The equipment of the Physics Laboratory and of the Department of Mechanics will be at the disposal of the course in Electrical Engineering (See Physics and Mechanics).

English.

Professor Carson.
Professor Glen.
Miss Roe.

Six objects are contemplated in the following courses:

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

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

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

4. Proficiency in English composition.

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

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

I. RHETORIC, CRITICISM AND ENGLISH COMPOSITION.

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

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

1a. English Composition.—Elements and principles of effective composition in English prose. Three methods are used: (1) the analysis in class of choice bits of literature; (2) constant practice in exercises in class and outside under grammatical rules and requirements; (3) the preparation of six short themes. Text-book, Pearson's Composition. Prescribed for all freshmen in all courses. One credit.

1b. English Composition.—The course aims: (a) to secure knowledge of the fundamental principles of composition; (b) to secure skill in the construction of sentences and paragraphs and in outlining. These subjects are reached through text-book, lectures, analysis and constructive work. Six themes are required. Text-book: Fletcher and Carpenter's Themes. One credit.

2. Rhetoric and Criticism.—A good deal of written work is done to develop accuracy, originality and creative power. The first half of the year is given to the study of style, and exercises are written giving special attention to diction, figures and structure of sentences and paragraphs. The second half of the year is given to invention. Exercises are written illustrating the essentials of description, narration, exposition and the different forms of argument. Text-books: Genung's Practical Rhetoric and Genung's Rhetorical Analysis. Required of all candidates. Professor Carson. Four credits.

3. Criticism, Exposition and Argument.—Prescribed for all B. A. and B. S. candidates who have passed in courses 1a and 1b. This course is closely connected with Course 2. Constant practice in writing consists of: (a) exercises based on the text-book, written in the class-room and outside; and (b) the preparation of six themes accompanied by outlines. Text-book: Genung's Practical Rhetoric. Professor Carson. Prescribed for sophomores. One credit.

4a. Argumentative Composition.—This course consists of (1) the drawing of two briefs from masterpieces of argumentative composition; (2) the study of principles and methods under inductive and deductive arguments; (3) the study of the nature and kinds of evidence; (4) the production of five forensics, each preceded by a brief. Text-books: Baker, Principles of Argumentation; Baker, Specimens of Argumentation. A two-hour course. Prescribed for all juniors, for the first semester and also for the second semester unless either half-course 4b or half-course 4c be elected. Professor Carson. Two credits.

4b. Construction of the Oration.—This course includes: (1) a study of the principles of argumentation and persuasion, as set forth in master orations; (2) the analysis of two orations in class; (3) the construction of two orations or papers of oratorical nature. each preceded by a brief; (4) lectures and conferences. Text-books: Same as in Course 4a. 4b is a two-hour course for the second semester. Professor Carson. One credit.

4c. Advanced Composition; Themes. — This course, two hours for the second semester, is intended for juniors who do not desire to continue work in argumentation. It includes (1) a study of narration, description; also character, plot and dialogue, as exhibited in the short story; (2) analysis of classic prose in these forms; (3) construction of five papers illustrating these forms; (4) lectures and reports. Professor Carson. One credit.

5a. Forensics and Orations.—Open only to seniors who have passed Courses 4a, first semester, and 4b, second semester, with credit. Course 5a consists of (1) the drawing of one brief from a masterpiece of argumentative composition; (2) the analysis of two master orations; (3) lectures, conferences, and criticisms of briefs, forensics and orations; (4) the writing of two forensics and two orations, each preceded by a brief. An elective course one hour a week. Professor Carson. One credit.

Note.—Courses 4a, first semester; 4b, and 5a, must be taken by students intending to compete for Failing and Beekman oration prizes.

5b. Forensics and Debating.—Open only to those who have passed Courses 4a or 4b, and 4c. One credit. Not offered in 1900-1901.

5c. Construction of the Short Story.—A study of principles as exhibited in select masterpieces. Lectures and reports. This course is intended as a continuation of Course 4c. Professor Carson. One credit.

6. Journalism.—Development and functions of the American newspaper. Study of the methods of journalism as set forth in a few great papers of our day and country. Practice in various forms of newspaper writing. A one-hour course. Prerequisite: At least Junior standing. Professor Carson. One credit, to be increased to two credits.

7. Exposition. —A study of the principles of exposition; construction of practical exercises and four essays. Two-hour course the second semester. Prerequisite: At least Junior standing. Professor Carson. One credit. Not given in 1900-1901.

FOR GRADUATES AND ADVANCED UNDER-GRADUATES.

8. Seminar in the Critical Study and Construction of the Short Story.—A two-hour session each week. The structure of the short story will be analyzed in comparison with that of the novel and drama. Themes, motives, art in development of character, plot and environment will be discussed. This course will require the construction of a certain number of short stories, with practice in working out details. Open to graduates, seniors and special students in English who are properly fitted. Professor Carson. Two credits. Not given in 1900-01.

9. Seminar in Versification.—A two-hour session each week. Critical study of a few verse-forms, as found in Modern English poetry, with practice in metrical composition. Open to graduates, seniors and special students in English. Professor Carson. Two credits. Not given in 1900-01.

10. Seminar in Rhetorical Methods.—Two-hour session each week. This course is intended for graduates who intend to teach English, or for teachers of English. Prerequisites are courses 1, 2 and 3, or equivalents. The aim of this course is twofold: To discuss important questions in the theory of Rhetoric; to outline modern methods of teaching Rhetoric and English Composition in schools and colleges. Primarily for graduates.

II. ENGLISH LITERATURE.

1. General History of English Literature.—Recitations, lectures and reports. Prescribed in Freshman year for all candidates for A. B. and B. S. degrees, and a prerequisite for all other courses in English Literature. Professor Glen. Three credits.

2. The Predecessors and Contemporaries of Shakespeare. —This course aims to give through lectures a general knowledge of the rise and development of the drama in England, particularly after 1550; of the contributions to that development by the more important of the early playwrights; and a more definite knowledge of the great predecessors and contemporaries of Shakespeare. Works of Marlowe, Lyly, Peele, Greene, Jonson, Ford, Beaumont and Fletcher will be examined. One-hour course. Professor Carson. One credit.

3a. Shakespeare. — This course consists of about ten plays so selected from Dr. Furnivall's classification as to indicate the growth of Shakespeare's mind and development of his art. These plays are examined with special reference to their sources, relative dates

and changes in style. An attempt is made to study the art in development of plot and delineation of character. The work is carried on through lectures, reports, class readings and discussions. Three credits. Prerequisite: At least Junior standing.

3b. Shakespeare. —This course consists of about ten plays so selected as to give a view of Shakespeare's power, especially in historical drama; also in comedy, tragedy and romance. The methods of work are similar to those used in 3a. Alternates with 3a. Not given in 1900-01. Three credits. Prerequisite: At least Junior standing.

4a. English Prose From 1550 to the Beginning of Puritan Period, 1625.—Emphasis will be given to Bacon and the "Authorized Version" of the English Bible. A short history of English versions, the literary classification of the books, and illustrated passages will be considered. Alternates with 5a. Two hours first semester. Not given 1900-01.

4b. Milton and Literature of the Puritan Period, 1625 to 1660.—Two hours, second semester. Alternates with 5b. Not given 1900-01.

Courses 4a, 4b and 4c aim to consider English Literature in its connection with the historical movement of the English people in the seventeenth century; also the decline of Italian and rise of French influence.

4c. Dryden and Literature of the Restoration, 1660-1700. —This period will be considered also in its relation to the classical period of English Literature, 1660-1725. (See 3b.) Two-hour course, first semester. Not given until 1902-03.

5a. Literature of the Period of Queen Anne.—From the death of Dryden to the death of Pope, 1700-1744. Alternates with 4a. Two-hour course, first semester. Not given until 1901-02.

5b. Literature From the Death of Pope to the Publication of the Lyrical Ballads, 1744-1798.—Alternates with 4b. Not given 1901-02. Two-hour course, second semester, intended as a continuation of 5a. It may include the aspect specified in 7a.

7c. The Beginnings of Romantic Poetry.—This course will consider the growth of romanticism in English Poetry, between 1720 and 1780. One-hour, first semester.

7b. English Romantic Poets From 1780 to 1830.—Lectures will be given on the characteristics of the period, and the class will study typical poems of Burns, Cowper, Coleridge, Crabbe, Words-

worth, Scott, Byron, Shelley and Keats. (Ward's English Poets, Vol. IV. MacMillan's editions of Shelley, Coleridge and Wordsworth.) Not given 1900-01. Two hours, second semester.

This course is intended as a continuation of 7c or an introduction to 6b.

6a. English Prose Writers (Not Novelists) of the Nineteenth Century.—This course considers Lamb, De Quincy, Macaulay, Carlyle, Landor, Newman, Matthew Arnold, Ruskin. Three hours throughout year. Alternates with 6b. Not given in 1901-02.

6b. English Poets of the Second Half of the Nineteenth Century.—(For first half, see 7b.) This course considers Arnold, Tennyson, Browning, Swinburne, Morris and Rossetti. Lectures, discussions, reports. Three hours throughout the year. Alternates with 6a. Not given in 1900-01.

6c. The English Novelists of the Eighteenth and Nineteenth Centuries.—This course will include an outline study of the early development of the novel from Richardson to Scott, and a more complete study of Scott, Dickens, Thackeray, George Eliot. Not given until 1902-03. Open to seniors and graduates. Two hours throughout the year.

8. American Literature.—This course gives an outline of American Literary History and the reading and discussion of important works in prose and verse. It is carried on through text-book, Pancoast's American Literature. Lectures and student reports. Authors read: Franklin, Cooper, Irving, Poe, Webster, Bryant, Longfellow, Emerson, Hawthorne, Holmes, Lowell, Whittier, Lanier. First semester, to 1830. Second semester, from 1830 to present time. Two hours throughout year.

FOR GRADUATES AND ADVANCED UNDER-GRADUATES.

9. Seminar in the Theory, History and Practice of Criticism.—This course will consider the critical theories of Plato, Aristotle, Horace, Boileau, Lessing and also English masterpieces of literary and applied criticism from Sidney to Arnold. Open to graduates. Two-hour session each week. Not given in 1900-01.

10. Seminar in History of Epic and Lyric Poetry.—Not given in 1900-01.

11. Seminar in Epochs of the Drama.—Attention will be given to the great periods of drama in literary history, Greek, Latin, Spanish, English, French, German. Two-hour session each week. Open to seniors and graduates.

EQUIPMENT.

This department is very well equipped in English Dictionaries and works for reference in Rhetoric and English Composition. It has the masterpieces of the most valuable authors in English and American Literature, and is especially well equipped in a few selected periods.

English Language and Early English Literature.

Professor Glen.

Courses 1, 6a and 6b are primarily designed for undergraduates seeking the A. B. degree, but these courses must be taken with other specified courses for any advanced degree in English. The remaining courses include purely graduate courses, and those to which properly fitted undergraduates may be admitted, as specified below.

As all of these courses cannot at present be given in any one year, those will be open for which there seems to be the greatest demand. Alternate courses will be given in alternate years.

1. Anglo-Saxon.—Anglo-Saxon grammar and translation of select passages of prose and poetry. The relation of Anglo-Saxon to the cognate Continental languages will be carefully studied, and similarities traced. A knowledge of German will be found extremely helpful. The elementary knowledge of Anglo-Saxon will be valuable to students of English history and English constitutional law. Open to students who have requisite language preparation. Required for advanced degrees in English. Required for advanced degrees in German. Three credits.

2. Anglo-Saxon.—Beowulf, a textual and critical study of the great epic. Speculations concerning composition and authorship, historical value and literary merit. Christian elements and mythical elements. Special emphasis will be laid upon the phases of Anglo-Saxon life and spirit that the poem may express. Required for advanced degrees in English. May be taken by undergraduates. Three credits.

3. English Literature From Norman Conquest to Chaucer. —Results of conquest. Religious poetry, English folk-poetry. "Art lyric and epic." Anglo-Norman poetry. Layamon, legend, tale and tract. Later religious poetry, Langland, Gower and Wiclif. Open to graduate students and undergraduates who may have taken prerequisite courses. Required for advanced degrees in English. Two credits.

4. Chaucer.—Biography. Textual and critical studies in the Canterbury Tales and in minor poems. The seminary method is used when conditions permit. Topics assigned for individual study and reports, including influences of French and Italian predecessors, sources of poems, group classifications, origins, contents and relations between different poems. Open to undergraduates who have completed course 3. Required for advanced degrees in English. Three credits.

5. English Literature From Chaucer to Spenser.—Occleve, Lydgate. Early religious drama, miracle, mystery, and morality plays. Humanistic influences. Scottish imitators of Chaucer, Wyatt, Surrey, Skelton. Undergraduates not admitted without prerequisite courses 1, 3, 4, 6a, 6b. Required for advanced degrees in English.

6a. History of the English Language.—A general lecture course in the growth and development of the language, including discussions of different language families, characteristics, family and group or branch connection of English. Consonant shifts. Teutonic group characteristics. Native and foreign linguistic elements. Formative period. Creative period. Two credits, first semester.

6b. English Phonology.—Principles of phonetics. Development of English vowel and consonant sounds. Two credits, second semester.

Half courses 6a and 6b are companion courses for 1, and are prerequisite for courses 2, 7, 3, 8, 4, 5, 9. Required for advanced degrees in English.

FOR GRADUATES AND ADVANCED UNDERGRADUATES.

7. Anglo-Saxon.—Readings from Cynewulf, signed poems and those attributed to him. Alfred, Saxon Chronicles, Aelfric, alliterative and prose homilies and translations. Required of students taking major work for advanced degrees in this department. May be elected by any who have completed the preceding courses. Not open to undergraduates. Three credits.

8. The Metrical Romances of Early English Literature.—Form and contents. Early materials. Early significance. Origins. Translations of French romances. Two credits. Open to graduate students only. Required for advanced degrees in English.

9. Spenser and the Spenserians.—Spenser's major and minor poems. Style. Rank. Influences reflected. Browne, The Fletchers, Cowley. Two credits. Required for advanced degrees in English.

10a. English Versification.—Historical development of English rhythms, meters and stanzas. Special attention had to the old, early and middle English periods. Two credits. Second semester. Graduate course. Not given 1900-01.

10b. Development of the Allegory.—Two credits. First semester.

11a. History of the English Lyric.—This course is intended to cover the subject from earliest times down to and through the middle English period. A knowledge of Anglo-Saxon and middle English is prerequisite for this course. Purely graduate course. Three credits. First semester.

11b. Pre-Elizabethan Drama.—A course in the origins and early history of the drama in English. Pageants, miracle and mystery plays. The English play cycles. Morality plays. Interludes. Heywood. Earliest regular comedies. Earliest tragedies. Three credits. Second semester. Graduate course. Courses 15, 16 not given 1900-01.

PUBLIC SPEAKING.

There are five occasions for the delivery of public debates and orations scheduled for each year. This includes the competition for the Failing and Beekman prizes. In order to be eligible to enter this competition a student must have completed course 3 and one semester of course 4. Students will not be allowed to enter courses 3 and 4, however, unless they have done satisfactory work in courses 1 and 2 in this university, or equivalent work elsewhere.

1. Regular Freshman Course.—Fundamentals, articulation, emphasis, inflection and elementary work in vocalization and gesture. One credit.

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

3. Formal Oral Debate.—First semester. A study of the forms of debate. Private and public debates. Continuation of study of expression. One credit.

Second Semester. Introduction to the study of oratorical forms and delivery, characteristics of oratorical style. Divisions of oratorical style, methods of cultivation of best style. What to avoid in oratory. Continuation of work in vocalization. Public Junior orations. One credit.

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

EQUIPMENT.

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

Geology.

Professor Condon.

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

A.

2. Geological Examinations and Surveys.—A discussion of the methods of systematically recording and interpreting geological phenomena. This will be followed by study of the scope of geological surveys and history, and results of such surveys.

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

B.

3. Mineralogy.—A course in the outlines of crystalography and descriptive and determinate mineralogy. (See Chemistry.) Two credits.

4. Optical Mineralogy.—A course to make students familiar with the principles, apparatus and characteristics of minerals in thin sections.

5. Petrography.—A course in microscopic study of rocks.

6. Petrology.—Study of the origin, mineralogical composition and microscopic structure of crystalline rocks; and of metamorphism.

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

8. Economic Geology.—An advanced course with attention confined to ores of iron, copper, gold, silver, lead, zinc and lesser metals in Oregon and surrounding states. Two credits.

9. Economic Geology.—A companion course to course 8, dealing with coal, petroleum, natural gas, asphalt, marbles and building stones, phosphates, water supply, clays, salines, etc., etc., in Oregon and surrounding states. Courses 8 and 9 alternate. Neither will be given probably in 1900-1901. Two credits.

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

11. Ethnography.—A course in study of races as to distribution, forming an introduction to the course in Anthropology under the department of Economics and Sociology. Two or three credits.

12. Blowpipe Analysis.—Tests for elements and the qualitative analysis of minerals, alloys and slags. (See Chemistry.) One and a half credits.

COURSES FOR GRADUATES AND ADVANCED UNDER GRADUATES.

Graduate courses will be outlined in Geology as called for, and the credits assigned. In addition, courses 2, 5, 6, 8. 9 and 10 are open to Graduate students.

EQUIPMENT.

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

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

These materials more than fill twenty large glass cases, whose under spaces are crowded with over 200 drawers, also filled with illustrative geological materials, arranged to accommodate the daily classes of the geological course. This undisplayed material would fill thirty or forty more cases, and require a much larger museum.

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

Greek Language and Literature.

Professor Straub.

1. Elementary Greek.—Gleason and Atherton's First Greek Book. Fall semester. Five times each week.

2. Zenophon's Anabasis (Harper & Wallace), book I; Goodwin's Greek Grammar. Spring semester. Five times each week.

(Courses 1 and 2 include a thorough drill in Greek declensions and conjugations.)

3. (a) Anabasis.—Books II, III, IV, Critical Study of the Prepositions (Adams'); Goodwin's Greek Grammar. Fall semester. Four times each week.

(b) Homer's Iliad.—Books I to IV, inclusive. Jebbs' Homer; Mahaffy's Old Greek Life. Spring semester. Four times each week.

(Courses 3 and 4 include a thorough drill in Greek syntax, with daily translations of simple English sentences into Greek.)

4. (a) New Testament Greek.—The Four Gospels, Fall semester. Four times weekly.

(b) New Testament Greek.—Acts to Revelations, inclusive. Spring semester. Four times weekly.

(Courses 5 and 4 are intended for divinity students, and are elective for other Greek students. Prerequisite courses, 1 to 4.

5. (a) Xenophon's Memorabilia; Demosthenes, Philippics.—Fall semester. Four times weekly.

(b) Lysias' Orations (Morgan); Selections From Herodotus.—Spring semester. Four times each week.

6. (a) Medea of Euripides; Aeschylus' Prometheus; Study of the Attic Theater.—Fall semester. Three times each week.

(b) Plato's Apology and Crito; Sophocles' Antigony; Greek Literature (Morris).—Spring semester. Three times weekly.

7. (a) Aristophanes' Clouds; Sedgwick's Greek Prose Composition.—Fall semester, Three times each week.

(b) Demosthenes' De Corona; Bredif's Life of Demosthenes; Greek Prose Composition. Spring semester. Three times each week.

8. Greek Mythology.—Text-books, reading and informal lectures. Once a week during the year.

(No Greek required for this course. Open to all students.)

FOR GRADUATES AND ADVANCED UNDER-GRADUATES.

9. Modern Greek Grammar.—Fall semester. Three times a week.

10. Modern Greek Literature studied and compared with Classic Greek.—Spring semester. Three times a week.
(Will not be given in 1900-1901.)

11. (a) Pindar's Odes and Fragments; Thucydides, Books IV to VI.—Fall semester, Two times a week.

(b) Selections From Aristotle.—Spring semester. Two times a week.

12. Homer's Iliad, Books VI to XXIV, inclusive, read with a view to the study of the civilization and customs of the Homeric Tribes. One time each week during the year.

13. (a) Greek Epigraphy.—Text-book, Sobert's. Fall semester. Once each week.

(b) Greek Inscriptions.—Text-book, Hicks' Manual of Greek Historical Inscriptions. Spring semester. Once each week.

13a and 13b not given 1900-1901.

Courses 6b, 7a and 8b may also be taken by graduate students with the consent of the instructor.

EQUIPMENT.

The department of Greek has a number of Kiepert's large wall maps, i. e., Greece, Asia Minor Persia, etc.

The Classical Library contains, among other books, all of Dr. Smith's dictionaries of Greek and Roman Antiquities, Biography, Mythology, Geography, etc.; also Mahaffy's complete works, and works covering Ancient Sculpture, Painting, History, Greek Culture, Social Life, Ancient Classical Literature, the Attic Theater, Growth of the Greek Constitution, of the Drama, Development of Oratory, Etc. Additions to the above are made from time to time as the funds permit.

History.

Mr. Joseph Schafer.

Professor Young.

President Strong.

The courses in history are correlated as far as possible with those of English literature and economics. They are arranged in three general groups. The Introductory Courses, 1-5, are general courses planned to lay the foundation for all future work. They are not open to graduate students, and such students must have had them or equivalents before undertaking the advanced work.

The Advanced Courses are intended to offer, upon the basis of the introductory work, an opportunity for a somewhat detailed study of more limited periods in mediaeval, modern European, English and American history, and of problems of colonial administration. These courses are in the main open to graduate students in the early years of their course.

The Graduate Courses are, with one exception, courses demanding considerable training and some power of independent research work. The exception spoken of is the course in the methods of teaching history, which is for teachers or those intending to teach.

INTRODUCTORY COURSES.

1. Ancient History.—A general survey down to the year 800 A. D., with special reference to Greek and Roman History. Five hours, first semester.

For all students taking history in the University Academy and all Freshmen in Civic Historical Course and others who can take it.

2. English History.—A general course in political history, running parallel with and correlating with course 1, Group II, in Economics. Two hours, second semester. Must be taken by all Freshmen in Civic Historical Course.

3. Mediaeval History.—A general course in Mediaeval History to end of the Reformation, or the middle of the sixteenth century. Three hours, first semester. Sophomore elective.

4. Modern History.—A course for general study from the middle of the sixteenth century to the present time. Three hours, second semester. Courses 3 and 4 will alternate for the present; course 4 not given 1900-1901.

5. American History.—Political and constitutional; a general course in two parts: (1) To the beginning of the Government of the United States under the Constitution, 1789. (2) From 1789 to the present time. Three hours for one year. May be elected by separate semesters. Sections (1) and (2) will alternate for the present; section (1) will not be given 1900-1901.

ADVANCED COURSES.

6. History of Europe From the Renaissance to the French Revolution.—An advanced course with special reference to the Feudal System, the Civilization of the Middle Ages, etc. Two hours for one year.

7. The French Revolution and the Napoleonic Wars.—A critical study. Two hours for one year.

8. History of Europe in the Nineteenth Century—A course dealing with history of Europe after the Napoleonic wars. Two hours for one year. Course 8 alternates with 7 and will not be given in 1900-1901.

9. History of England.—A course for students who have had a general course in English history. Especial attention will be given to the constitutional and social developments. Two hours for one year.

10. History of English Colonies in America.—Comparison will be made with French, Spanish and Dutch colonies. There will be a detailed study of the development of colonial institutions, with special reference to social and economic features. Three hours for one year.

11. Social and Economic History of the United States.—Attention will also be given to the constitutional side. Three hours for one year. Courses 10 and 11 alternate, and 10 will not be given 1900-1901. 8

12. A General History of Colonies, and the Government of Dependencies.—A course for students who wish to provide themselves with a knowledge of colonial administration, and the general history of the government of dependencies. Two hours for one year.

13. History of Territorial Expansion in the United States.—A study of territorial organization, settlement and government in the United States, with especial reference to the events that have led to the acquisition of territory. Two hours for one year. Courses 12 and 13 alternate; course 12 will not be given 1900-1901.

14. History and Institutions of Oregon.—Lectures and collateral reading. One hour per week.

COURSES FOR GRADUATES.

15. Seminar in History.—Methods of historical research and criticism. (a) Bibliography; first semester. (b) Elements of historical criticism; second semester. One hour for a year. Not given 1900-1901.

16. History of Slavery in the United States.—A study from the sources will be made of Slavery in Oregon. Two hours for one year.

17. Special Periods of American History.—(a) The period 1800-1830; political, social and economic aspects.

(b) The period 1830-1861; political, social and constitutional aspects.

(c) The period 1861-1877; political, social and constitutional aspects. Two hours for one year.

Only one of these will be given each year: (a) will be given 1900-1901. Courses 16 and 17 alternate, and 16 will not be given 1900-1901.

18. Special Periods in English History.—(a) From the accession of the Tudors to the close of the Puritan period.

(b) Mediaeval England.

19. Methods in History.—Methods of teaching history with special reference to secondary schools.

EQUIPMENT.

The equipment in history is already considerable and is being added to as rapidly as possible. The library contains most of the standard general histories and histories of special periods. In the way of primary sources in history, the University is especially favored in having at hand a considerable part of the documents and manuscripts of the Oregon State Historical Society, which form an exceedingly valuable body of material for original research work in history. This material will be at the command of graduate students of sufficient preparation, and will be used for monographs on Oregon history.

The library is also adding to its stock of historical sources by the purchase of historical documents of various kinds, reprints and collections of documents, with especial reference to English history after the accession of the Tudors, and American colonial history. Such are O'Callaghan's History of New York; Force's American Archives; Spofford's American Almanac; the new edition of the Jesuit Relations; Congressional Globe and Record; Johns Hopkins University Studies; Annals of Congress; American State Papers; complete works of Jefferson, Franklin, Webster, etc., etc.; Histoire Generale by Lavisse and Ramboud.

Latin Language and Literature

1. Roman History.—(a) The Legendary Period; Livy, Books I and II. (b) The Second Punic War; Livy, Books XXI and XXII.

2. Roman Comedy.—(a) The Plays of Terence, Phormio and Andria. (b) The Plays of Terence, Adelphoe and Phormio. Four hours per week. Three credits.

Courses 1 and 2 are to be taken in succession, occupying respectively the first and second semester of a college year, and are designed primarily for Freshmen or those who enter with credits covering four years of academic or high-school Latin. Both 1 and 2 provide in turn subdivisions (a) and (b), which are offered either in alternate years or at the discretion of the instructor,

both divisions being identical in value and subject, differing only in choice of books in Livy and of one play in Terence. The regular text preparation in Livy and Terence is supplemented by sight reading in both authors or in selections from Ennius, Horace, Catullus, Ovid, etc. One hour a week is given to Latin composition and the study of idioms of classic prose. Lectures to be given at stated intervals during the year are provided upon such cognate themes as "The Regal Period of Rome," "Rome and Carthage," "Livy," "Hannibal," "Terence," "The Roman Theater," "The Roman Historians," and "The Roman Lyric Poets."

Text-books: Livy, Books I and II; Greenough (Ginn), Books I, XXI and XXII Lord (Sanborn); Terence, Phormio, Elmer (Sanborn); Adelphoe, Cowle (Sanborn); Andria, West (American Book Co.); Selections from Latin Poets, with brief notes (Harvard Publishing Co.); Latin Composition for College Use, Miller (Sanborn).

3. Tacitus.—(a) The Germania and Agricola. (b) Selections from the Annals. (c) Selections from the Histories.

4. Horace.—(a) The Odes and Epodes. (b) The Satires and Epistles. Four hours per week. Three credits.

Courses 3 and 4 combined form one year's work, designed to supplement courses 1 and 2. The first semester is devoted to Tacitus, subdivisions offering a variety in the choice of works to be read. 3 (b) or (c) will introduce the student to interesting epochs in Roman history, whereas (a) provides the fascinating story of early Roman Britain and tribal Germany. Course 4 occupies the second semester with Horace, (a) providing a study of lyric Latin in the Odes and Epodes, or (b) offering a similar opportunity in Roman satire in the Satires and Epistles. As in 1 and 2, the regular text work will be supplemented by drill in composition, one hour each week.

Text-books: Tacitus, Annals, Books I-VI, Allen (Ginn); Histories, Books I and II, or III-V, Godley (Macmillan); Germania and Agricola, Hopkins (Sanborn). Horace, Odes and Epodes, Smith (Ginn); Satires and Epistles, Greenough (Ginn). Handbook of Latin Writing, Preble and Parker (Ginn).

5. Selections From the Epigrams of Martial and Satires of Juvenal.

6. Selections From the Letters of Pliny and Lives of Suetonius. Three hours per week. Three credits.

Courses 5 and 6, designed to be taken in successive semesters, continue the series begun by the four courses preceding. They cover an interesting epoch in the literature of the Empire, and are especially valuable for their reference to Roman society of the Decline. A rapid succession of four different authors, each a master in a distinct province of letters, provides a pleasing variety of topic and style.

Text-books: Martial, Stephenson's Selections (Macmillan); Juvenal, Duff (Macmillan); Pliny, Westcott's Selections (Allyn); Suetonius, Books I and II, Cick (Holt).

7. Selections From Lucretius.

8. The Plays of Plautus. Three hours per week. Three credits.

Courses 7 and 8 together correspond primarily to the Senior year. Lucretius occupies the first semester and opens an attractive field in philosophy in selections from his De Rerum Natura. Plautus follows in the second semester, supplementing the study of Terence in the Freshman year with that of the Captivi, Trinummus and Pseudolus, and an extended analysis of the Latin drama.

Text-books: Lucretius, Books I-III; Lee (Macmillan); Plautus, Captivi and Trinummus, Morris (Ginn); Pseudolus, Morris (Allyn).

COURSES FOR GRADUATES AND ADVANCED UNDER-GRADUATES.

9. Catullus and the Elegiac Poets. Three hours per week through half year. One and a half credits.

This course continues through the first semester only, one-half of the time given to the study of Catullus, the remainder to the elegies of Tibullus, Propertius and Ovid.

Text-books: Catullus, Merrill (Ginn); Roemische Elegiker, Schulzer (Weidmann, Berlin).

10. Cicero's Letters.—Three hours per week through half year. One and a half credits. (Omitted in 1900-01.)

11. Private Life of the Romans.—Three hours per week. Three credits.

Course 11 consists entirely of lectures, continuing through the entire year. The aim of the course is to bring to the aid of the numerous reading courses the knowledge gained by a survey of the private institutions, customs, etc., of the people themselves. Two theses will be required of each student upon some special topic

assigned by the instructor. It will be found a very helpful course, indispensable to the finished Latin student.

12. History of Roman Satire.—Three hours per week through half year. One and one-half credits. (Omitted in 1900-01.)

13. History of Latin Literature.—Prose. Three hours per week. Three credits.

Course 13 gives in lectures a survey of Latin prose from the earliest times to its decline. Suitable selections are designated by the instructor to be read in private by the students. Course 13 is given in alternate years with 14.

14. History of Latin Literature.—Poetry. Three hours per week. Three credits. (Omitted in 1900-01.)

History of Latin Literature.—Drama. Three hours per week through half year. One and a half credits.

This course continues through the second semester only, and consists of lectures, tracing the origin and growth of the Latin drama from Livius Andronicus to Seneca; its structure, nature and accompaniments, together with the minute study of an illustrative play from both comedy and tragedy.

16. Roman Topography and Archaeology.—Three hours per week. Three credits. (Omitted in 1900-01.)

Sanskrit.

1. Elementary Course.—It is the purpose of the University to offer a limited number of courses in Sanskrit and Indo-Iranian languages. To this end a class will be formed in 1900-1901 in the Elements of Sanskrit. First semester, grammar and easy reading lessons; second semester, more difficult selections and passages from the classics.

Text-books: Whitney's Grammar, Perry's Sanskrit Reader, and Lanman's Reader. Three hours.

Mathematics.

Professor Lilley.

1. Higher Algebra.—This course is intended for students who wish to make rapid and easy progress in their subsequent mathematical studies. The subjects included are: Variation, inequalities, surds and imaginary numbers; the binomial theorem for any exponent, the theory of exponents, including fractional exponents and incommensurable powers; the theory of quadratic equations,

the three progressions, theory of limits, indeterminant equations, interest, and annuities; permutations, combinations, and probabilities; convergency and divergency of series, undetermined coefficients, partial fractions, exponential and logarithmic series, logarithmic computations, summation of series, and elements of determinants. Problem-solving and theory have equal weight. Text-book: Lilley's Higher Algebra, supplemented by the instructor. Three times a week for one year.

2. Trigonometry and Analytic Geometry.—Five times a week for one year.

3. Plane and Spherical Trigonometry.—An elementary course consisting of the following subjects: Definition and relation of the six principal trigonometric functions; the properties of right and oblique triangles, and their solutions, including the ambiguous cases; the development of the general formulae, and the use of trigonometric tables; the solution of examples involving the application of trigonometric formulae. The course is given during the first twelve weeks of the first semester. Text-books: Phillips & Strong's Elements of Trigonometry.

4. Analytic Geometry.—This is an elementary course consisting of the analytic geometry of the straight line, the circle, and the conic sections; the point, plane and straight line. It is mainly a problem course, and is given during the last four weeks of the first semester and the last semester. Text-book: Nichol's Analytic Geometry.

5. Differential and Integral Calculus. Requires course 2, or preferably courses 2 and 1. This course includes the development of the fundamental principles and formulas of the differential and integral calculus; application to tangents and normals; to plane curves; maxima and minima values; indeterminate forms; expansions of functions in series; curvature, evolutes, and singularities of curves; lengths of curves, areas, surfaces, volumes, Taylor's theorem, Maclaurin's theorem, differentials of several independent variables; the integral as the limit of a sum, and the application of infinitesimals to geometrical problems. The student is required to solve a large number of problems. Problem-solving has equal weight with theory. Text-book: Osborne. Five times a week for one year.

6. Differential Equations.—Requires courses 2 and 3, or preferably courses 1, 2 and 3. This course includes the general theory

of linear differential equations with particular reference to differential equations of the second order, solutions in series, and special study of the hypergeometric function; Riccate's equation, Legendre's equation, and Besselian functions. Much stress is laid on the solving of problems. Text-book: Murray's Differential Equations, supplemented by Johnson's Differential Equations. Five times a week for one year,

7. Plane and Solid Analytic Geometry.—Requires course 2, or preferably courses 1, 2 and 3. This course includes a discussion of the general equation of the second degree, and some special examples in higher loci, quadratic surfaces, conicoids referred to their axes, generating lines, plane sections and systems, and foci of conicoids; tangential equations, reciprocation, confocal and concyclic conicoids. Text-book: C. Smith, supplemented by instructor. Three times a week for one year.

8. Problems in Algebra, Geometry and Trigonometry.—This course is supplementary to the courses in higher algebra, Euclidian geometry, and trigonometry, and may be taken at the same time with those courses. It is given for the benefit of those students who are capable and ambitious, and are particularly interested in mathematical studies and wish to lay a good foundation for their subsequent work. First semester, three times a week.

9. Theory of Equations.—This will be an elementary course, and an introduction to the theory of functions. It will include the fundamental theorems of determinants, their applications and some special forms; and the principal elementary theorems concerning algebraic and numerical equations. Barton's text-book will be used. Second semester; three times a week.

10. Determinants and Theory of Equations.—This course presupposes a good knowledge of algebra and a working knowledge of plane trigonometry and differential calculus. The following subjects are some of the more important that will be taken up: The differential theory of determinants, with some of their important applications; complex numbers and their geometric representation; the general properties of equations, including a treatment of multiples, roots and Sturm's theorem; the cubic and biquadratic equations; reciprocal and binomial equations; homogeneous equations; and graphical methods. Based on Chapman's, Burnside and Phanton's Theory of Equations. Three times a week for one year.

11. Modern Analytic Geometry.—This course is intended for students who have taken course 2, or preferably courses 2 and 5.

It will include trilinear co-ordinates, abridged notation of the straight line and second degree; imaginary points and straight lines; anharmonic and harmonic properties; transformation of co-ordinates; sections of curves; conics referred to a self-conjugate triangle, to an inscribed triangle, and to a circumscribed triangle. The course will be based on the methods of Whitworth and Clebsch. Three times a week for one year.

12. Advanced Work in Higher Algebra.—This will be a continuation of course 1, and based on Crystal's Algebra. First semester; three times a week.

13. Higher Trigonometry.—Requires courses 1, 2 and 3. It will include experimental formulas, factors, series, multiple angles, De Moivre's theorem, hyperbolic functions, imaginaries and vectors. Based on Johnson and Chauvenet's Trigonometry. Second semester; three times a week.

14. Problems in Differential and Integral Calculus. A practical course, adapted particularly to the needs of students in engineering. Once a week for one year.

15. Quaternions and Vector Analysis.—This course will consist of an elementary presentation of the principles of the subject and its application to geometry and mechanics. It presupposes a thorough knowledge of the fundamental principles of determinants, the simplest principles of mechanics, the elementary propositions and methods of geometry, algebra and trigonometry; also course 3, or preferably courses 1, 2, 3 and 10. The course is intended to furnish a complete treatment of the more elementary principles and applications of quaternions. The student should have Tait's Quaternions. Three times a week for one year, in alternate years.

16. Potential Functions.—This will be an elementary course, and introductory to mathematical physics. It requires courses 3 and 4. Based on Pierce's Elements of the Potential Function and Byerly's Fourier's Series. Twice a week for one year, in alternate years. (Omitted in 1900-1901.)

17. Analytical Mechanics.—A mathematical treatment of the principles of statics, kinetics and kinematics under subdivisions: Conditions of Equilibrium, Friction, Rectilinear and Curvilinear Motion, Constrained Motion, Motion of a System of Rigid Bodies in Space, etc., etc. Four times a week for one year.

GRADUATE COURSES.

19. Plane and Solid Analytic Geometry.—This will be a continuation of courses 2 and 5, and required courses 1 and 3, or preferably courses 1, 3 and 8. The course will include lines of the first and second order, based on Salmon's Conic Sections; surfaces of the first and second order, based on Salmon's Geometry of Three Dimensions. Twice a week for one year.

18. Differential and Integral Calculus.—The student who takes this course must have a thorough knowledge of the elements of the differential and integral calculus. This subject will be a continuation of course 3, and will require course 5. It will include the application of the differential calculus to maxima and minima of functions of three and more independent variables, tracing curves, curved surfaces and curvature, curves in space, and the calculus of operation; the various methods of integration; multiple integrals; infinite series; elliptic integrals; the gamma-functions and other allied integrals; Cauchy's integral; and series of Taylor and Maclaurin. Throughout the course, constant application of the principles studied will be made to problems in geometry and applied mathematics.

This course is based on Lamb's, Todhunter's and Williamson's Calculus. Three times a week for one year.

20. Differential Equations.—This will be a continuation of course 4 and requires an elementary knowledge of the theory of functions of a complex variable. The course will be based on Forsyth's text-book, supplemented by lectures. Three times a week for one year, in alternate years.

21. Functions of a Real and a Complex Variable.—An elementary lecture course introductory to the theories of Riemann and Weierstrass. Twice a week for one year, in alternate years. (Omitted in 1900-1901.)

22. Modern Higher Algebra.—The course will be based on Salmon's text-book and will include discriminants, invariants, covariants, linear transformations, linary and tenary quantics, and application of symbolical methods. Three times a week for one year, in alternate years. (Omitted in 1900-1901.)

Other Graduate Courses.—Courses will be provided for graduates, and others who have had sufficient training to take them, in quaternions and vector analysis, elliptic and abelian functions, theory of substitutions, theory of groups, algebraic curves and surfaces, theory of functions and modern analytical geometry.

EQUIPMENT.

The department has made a beginning on a systematic collection of Brill's models to aid in the presentation of the more difficult subjects. The collection includes:

Plaster models of ellipsoids, hyperboloids and paraboloids with geodetic lines and lines of curvature; also with umbilic, circular and principal sections; ellipsoid, hyperbolic paraboloid, and hyperboloid of one and two sheets with ruled surface; surface of revolution of the tractrix, with geodetic lines and principal curves of tangency; wire and thread models, and skeleton frames to illustrate the different positions of the hyperboloid, its ruled surface and generating lines of conicoids. Also, a good spherical blackboard, three feet in diameter; and blackboard apparatus to aid the student in the work of geometrical constructions; and a creditable collection of models and geometrical drawings, for use in illustrating the more difficult propositions and theorems in Euclidian geometry, constructed by students of the department in the workshop.

Mechanics.

Professor McAlister.

Mr. McAlister.

1. Mechanical Drawing.—Elementary. Use of instruments, elementary projection, with shop work. Four hours, Freshman.

2. Descriptive Geometry.—Orthographic projections of points, lines, surfaces and solids, intersection of surfaces. For all but chemical engineers, 2½ hours, Sophomore. For chemical engineers with general geology, 3½ hours, Sophomore.

3. Strength of Materials, Structural Details.—Elasticity and resistance of the materials of engineering. Laws of elasticity in homogeneous bodies. Coefficients of elasticity. Relations between stresses and strains. Torsion and flexure. Resistance of wrought iron, cast iron, steel, alloys, timbers, building stones, etc. Simple and continuous beams; iron, steel and timber beams, etc. For civil engineers, 3 hours, Junior. For sanitary engineers, 3 hours, second semester, Junior.

4. Thermodynamics.—With special reference to the theory of heat engines. Three hours, first semester, Junior.

5. Engineering of Power Plants, Steam Engine and Boiler. —Steam engines as to mechanism; rotary engines, single-acting

engines, condensing, compound and multiple-expansion engines; test, repair, construction and typical forms of boilers. Three hours, first semester, Senior.

6. Machine Design and Specialized Engineering Drawing.—Topographical and geological charts and maps, working and isometric drawing of machinery, furnaces and structural work. Tracing and blueprinting and shop drawings. Three hours first semester, Junior.

7. Management and Test of Boilers.—Laboratory and power plant practice.

8. Shopwork.—First year, work in wood; framing, wood turning, etc., with drawing. Four hours, Freshman.

9. Shopwork.—Second year, bench work, chipping, filing, work at lathe, planer, drill etc,. For all but chemical engineers, 2 hours, Sophomore. For chemical engineers with graphic statics, 3½ hours, Sophomore.

10. Shopwork.—Third year, machine tool work at lathe, planer, etc., with management and test of boilers. Five hours, Junior.

EQUIPMENT.

The University machine shop occupies a floor space of 75 feet by 30 feet in the basement of the Gymnasium Building. Two steam engines furnish the necessary power. One, an eighteen-horse, balanced-valve, high-speed engine, supplies the power for the electric light plant; the other, a ten-horse power engine, runs the machinery of the shop. The object of the machine shop is, in part, to supply laboratory facilities to the students of the various engineering departments. With this in view, it has been equipped with various forms of suitable machinery, such as lathes for both iron and wood work, drill presses, one large planer for iron, saw tables, one forge, a set of blacksmith's tools, a set of plumber's tools, several sets of taps and dies, and a good assortment of machinist's and carpenter's tools. As soon as students have acquired sufficient skill in the use of tools and the manipulation of machines, each one is entrusted with the construction of some valuable piece of apparatus for the University cabinets. In this way several hundred dollars' worth of finely finished apparatus has already been added to the cabinet of the physical department at merely the cost of material.

The machinery of the electric-light plant occupies at present the east end of the machine shop. The equipment consists of two

dynamos and auxiliaries. The larger dynamo is a 9-kilowatt, quadripolar, compound-wound machine, and is used mainly to furnish the current for the University electric-light system. The smaller one is a 4-kilowatt, bipolar, shunt-wound machine, and is used to supply testing facilities to the students of the electrical engineering course. The auxiliaries are of the nature of the voltmeters, ammeters, wattmeters, resistance boxes, etc. The power is supplied by one of the engines of the shop. The system of electrical distribution is the parallel kind and contains about 200 high efficiency Edison incandescent lamps, and a number of arc lamps.

The University operates its own water plant. This is located between the millrace and the river and is connected by pipes with two large tanks in the towers of Deady Hall, the latter serving as reservoirs. The plant has a capacity of 50,000 gallons a day. The operation of the plant is largely entrusted to students of engineering courses. In this way it adds materially to the laboratory facilities of the university.

Mineralogy.

(See Geology.)

Mines and Mining.

Professor Lachman.

Mr. ————

1. Ore Dressing and Milling.—General principles of dressing, cleansing; milling of gold, silver and other ores. Description of typical dressing works. Three hours, first semester.

2. Excavation and Tunneling.—Excavation of earth, tools and methods; support of excavations; quicksands; hauling of excavated material. Explosion and blasting. Tunnels and their drainage and location. Three hours, second semester.

3. Boring and Shaft Sinking; Exploration, Development and Mine Working—Boring methods and appliances for shallow and deep boring. Systems of boring; shaft sinking; mineral deposits, characteristics of beds, veins, etc. Surveying of deposits, maps, outcrops; coal mining; vein mining, etc. Three hours, first semester.

4. Mine Engineering. Methods and machinery, underground haulage, surface haulage and transportation, drainage, mine waters and their control, dams, ventilation and mine gases, fire damp explosions. Three hours, second semester.

EQUIPMENT.

(See Chemistry and Engineering.)

The Modern Language Department.

Professor Schmidt.

The aim of the instruction in the Modern Language Department is primarily to enable students to use modern German, French or Spanish with facility in reading, writing, and, as far as possible, in speaking, and to acquaint them with the masterpieces of German, French or Spanish literature.

Opportunity is also given for graduate courses in Germanic and Romanic languages. These are intended especially for students who desire to make the teaching of German, French or Spanish their profession, or who expect to take an advanced degree in these languages. 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 and Romanic languages and literatures. No credit is given for less than two years' work in French or German.

GERMANIC LANGUAGES AND LITERATURES.

1. Elementary German.—The elementary course comprises: Joynes-Meissner's German Grammar; German composition; translation of easy prose and poetry. Special attention is paid to systematic training in pronunciation. The reading of about 100 pages of graduated texts from a reader is required. Joynes' German Reader is used. In addition to this, one or two of the following selections will be read: Storm's Immensee; Volkmann's Kleine Geschicten; Märchen und Erzählungen; Seidel's Märchen; Zschokke's Derzerbrochene Krug. German conversation. Five credits. Five hours a week throughout the year.

2. Advanced German.—During the second year, the work comprises: Advanced German Grammar and Composition, Syntax. German conversation (based upon Meissner or some other method) throughout the year. Material to be read is selected from the following list: Heyse's L'Arrabbiata; Baumbach's Die Nonna; Wildenbruch's Das edle Blut; Hillern's Hocher als die Kirche; Hauff's Das kalte Herz; Leander's Träumereien; 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 credits. Four hours a week throughout the year.

3. Goethe, Schiller and Lessing.—(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. Writing of essays in German; German conversation. Practice in writing German is afforded by means of dictation or similar exercises. Three credits. Three hours a week throughout the year.

4. Heine's Prose.—Die Harzreise; Die Romantische Schule, and other selections will be read. One credit. One hour a week throughout the year. Hours to be arranged.

5. German Novels and Dramas.—During the year some of the following works will be read: Ebner-Eschenbach's Die Freiherren von Gemperlein, Keller's Dietegen; or, Kleider machen Leute; Riehl's Novellen, for example, Burg Neideck, Der Fluch der Schoenheit, Der stumme Ratsherr, Das Spielmannskind; Scheffel's Ekkehard; Wildenbruch's Der Letzte; Dahn's Sigwalt und Sigridh; Meyer's Gustav Adolfs Page; Sudermann's Der Katzensteg. Two credits. Two hours a week throughout the year.

Courses 4 and 5 alternate with 3 and are omitted 1900-1901.

6. General History of German Literature.—Bernhardt's Deutsche Litteraturgeschichte is used as text-book. A limited number of lectures are given. One credit. One hour a week throughout the year.

7. German Poetry. Goethe's poems; Schiller's ballads; Uhland's poems; White's Heine's poems; Klenze's Deutsche Gedichte or Kluge's Auswahl deutscher Gedichte will be used as text-book. One credit. One hour a week throughout the year. Alternates with 6. Not given in 1900-1901.

8. Goethe's Faust.—Part I, with commentary. One credit. Two hours a week during one semester. Not given in 1900.

9a. Historical German.—This course consists of the rapid translation of modern historical and economic German. It is especially designed for those students who wish to acquire a sufficient knowledge of the language to enable them to read German books on history, philosophy, etc. The matter to be read is selected from such works as Riehl's Kulturgeschichtliche Novellen; von Sybel's Kleine historische Schriften; Freytag's Bilder aus der deutschen Vergangeheit; Schiller's Geschichte des dreissigjahrigen Krieges, etc. One credit. Two hours a week during one semester.

9b. Scientific German.—This course is recommended to students who are taking, or who plan to take, special courses in

Natural Science or in Medicine. Gore's German Science Reader is used as an introduction, and is followed by monographs on various subjects, in order to give the student as large a vocabulary as possible. Among the books to be read are: Hirzel's Chemie; Brewer's Naturlehre; Mueller's die electrischen Maschinen; Helmholtz's Ueber Goethe's Naturwissenschaftliche Arbeiten. No student is advised to take this course who has not had at least two years of thorough preparation in literary German. One credit. One hour a week throughout the year. Alternates with 9a. Not given 1900-1901.

10. Advanced German Composition.—C. A. Buchheim, Materials for German Prose Composition. Parts I and II. One credit. One credit. One hour a week throughout the year.

11. Contemporary Literature, in Rapid Readings.—Works by Hauptmann, Sudermann, Wildenbruch, Fulda, Ebner-Eschenbach, Dahn, etc., are read. This course is intended for students who have completed courses 1, 2 and 3 and who wish to become acquainted with the works of the most modern authors. One credit. One hour a week throughout the year. Not given in 1900-1901.

FOR GRADUATES AND ADVANCED UNDERGRADUATES.

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

12a. Middle High German.—Paul, Mittelhochdeutsche Grammatik, 4 Auflage, Halle, 1894; Henrici, Proben der Dichtungen der Mittelalters, Berlin, 1898; Selections from the Nibelungenlied; Walther von der Vogelweide. Parzival. Lexer, Mittelhochdeutsches Tarschen-Worterbuch.

12b. Old High German.—Braune's Althochdeutsche Grammatik, and the same author's Althochdeutsches Lesebuch (4 Ed.); Mullenhoff and Scherer's Denkmaler Deutscher Poesie und Prosa (3 Edition); Behaghel's Historical Grammar of the German Language. 12b alternates with 12a. 12b not given 1900-1901.

13. 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 required for advanced degrees in English philology. Not given 1900-1901.

14a. Norwegian or Swedish.—Grammar and reading. Representative authors.

14b. Danish. Groth's Danish Grammar. Reading of representative authors. Courses 14a and 14b alternate. 14b not given 1900-1901.

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

ROMANIC LANGUAGES AND LITERATURES.

This department has not thus far been made independent, and is taught by the department of Germanic Languages and Literatures.

FRENCH.

1. Elementary French.—The first year's course in French comprises: Whitney's Practical French Grammar, Parts I and II, with written exercises and systematic training in French pronunciation on the basis of Matzke's Primer of French Pronunciation. The reading of about 150 duodecimo pages of graduated texts is required. Super's French Reader is used. In addition to this, one of the following selections will be read: Contes de Feés easy classic Fairy Tales; Bruno's Les Enfants Patriotes; Gervais's Un las de Conscience; Erkmann-Chatrian's Le Conscrit de 1813. Writing French from dictation. French conversation. Five credits. Five hours a week throughout the year. 8 a. m.

2. Advanced French.—The work during this year comprises: Review of the French Grammar; Grandgent's Short French Grammar is used. Advanced French Composition and Syntax on the basis of Whitney's Grammar, Part II. The reading of easy modern French in the form of stories, plays or historical or biographical sketches will be selected from the following list: Halevy's L'Abbe Constantin; George Sand's La Mare au Diable; Daudet's easier short tales; Malot's San Famille; Merimée's Colomba; Foa's Contes biographiques; Sept Grands Auteurs; Sarcey's Le siege de Paris; Foncin's Le pays de France; Historiettes Modernes. Easy comedies: Legouve and Ladiche's La Cigale chez les Fourmis; Labiche and Martin's La Poudre aux Yeux; Scribe's Le Verre d'Eau; Augier's Le Gende de M. Porrier; Racine's Athalie; Corneille's Le Cid; Moliére's L'Avare. The class is expected to read two or three stories and two or three plays. French conversation. Four credits. Four hours a week throughout the year. 9 a. m.

3. French Drama.—Corneille's Cid, Horace and Polyeucte; Racine's Athalie, Esther and Andromaque; Moliére's Le Tartuffe, Les Femmes Savantes, Les Precieuses Ridicules; Hugo's Hernani and Ruy Blas. This course is open to students who have completed course 2 or its equivalent. Two credits. Two hours a week throughout the year.

4. Recent French Prose Writers.—Daudet's Le Nabab (Wells); Paul Bourget (Extraits Choisis); Zola's La Débacle, etc.; Victor Hugo's Prose (Warren). The recitation, for the most part, is conducted in French. Two credits. Two hours a week throughout the year. Course 4 alternates with 3. Not given 1900-1901.

FOR GRADUATES AND ADVANCED UNDER-GRADUATES.

5. Selections From Standard Works on History, Philosophy, Science, etc.—For example: Lamartine's Scenes de la Revolution Francaise; Taine's Origines de la France contemporaine; Renan's Souvenirs d'enfance et de jeunesse; Rousseau, Emile, Livre IV; Pellissier's Movement lttéraire au XIX e siécle; Mirabeau, Discours Choisis; Voltaire's Prose (Cohn and Woodward.) Two credits. Three hours a week throughout the year.

6a. Physiological Phonetics.—Students will need Sievers, Grundzuege der Phonetik; Paul Passy, Les Sons du Francais, Paris; A. Rambeau and J. Passy, Chrestomathie Francaisse. Two hours, either semester.

6b. Old French.—Reading of selected extracts. Books: Cledat, Morceaux choisis des auteurs francais du moyen age; Gaston Paris La Littérature francaise au moyen age; Extraits de la Chanson de Roland. Two hours, either semester. Course 6b alternates with 6a. 6b not given 1900-1901.

7a. Seventeenth Century Prose.—Critical reading and papers on Descartes, Balzac et Voiture, Pascal, Modern de Sevigne, La Rochefoucauld, Bossuet, etc. Two hours, either semester.

7b. Seventeenth Century Poetry.—Boileau, Racine, Moliére, Corneille, etc. Two hours, either semester. Not given until 1901-1902.

SPANISH.

1. Elementary Spanish.—The first year's course in Spanish comprises: Edgren's Spanish Grammar with written exercises. The reading of about 100 pages of graduated texts is required. The material to be read will be selected from Matzke's First Spanish Readings or De Haan's Cuentos Modernos. In addi-

tion to this, either Alarcon's El Capitán Veneno or Galdo's Doña Perfecta will be read. The course is open to students who have had French or Latin. Two credits. Two hours a week throughout the year.)

2. Classical Spanish.—Cervantes's Don Quijote, the first twelve books, with introduction, notes and vocabulary, by Prof. Todd; Calderon's La Vida es Sueño; El Príncipe Constante; Spanish conversation. Two credits. Two hours a week throughout the year. Not given in 1900-1901.

3. Spanish Poetry.—El poema del Cid. One credit. One hour a week throughout the year. Not given in 1900-1901.

These courses will be enlarged and new ones, including Italian, added, as the growth of the University warrants.

EQUIPMENT.

The library of the Modern Language Department—as yet small and inadequate—consists of some German, French, Spanish and Italian works. The most important of the German works in the departmental library are those of Lessing, Goethe, Schiller, Uhland, Heine, Grillparzer, Lenan, etc. In French: E. Littre's Dictionaire de la langue francaise; Adolphe Brisson's Portraits intimes, etc. During the last few years, the following periodicals were subscribed for: Deutsche Rundschau; Revue des deux Mondes; Revue des Langues Romanes; La Revue Generale; Zeitschrift fur franzosische Sprache und Litteratur; Neuere Sprachen. To reinforce the geography of European countries, wall maps of modern Europe, France, Spain and Germany are in use. There are prospects of a large increase in the departmental libraries, and it is expected that some instruments for Experimental phonetics will be at the disposal of modern language students in the near future.

Philosophy.

Mr. ————

1. Historical and Critical Introduction to Philosophy—A course introductory to the study of philosophy, with papers and private reading. Three hours.

2. History of Modern Philosophy.—A general course with lectures and outside reading. Two hours.

3. Ethics.—Elements of ethics in an introductory course with assigned reading. Three hours.

4. Greek Philosophy.—A general course to cover as comprehensively as possible the most important features of Greek philosophy. Two hours.

5. The Philosophy of Kant and His Successors.—A study of Kant, Fichte, Schelling, Hegel, Herbart and Schopenhauer. Two hours. Not given in 1900-1901.

6. British Philosophy From Locke to Herbert Spencer.—Especial attention to the development of the philosophy of evolution. Locke's Essay on the Human Understanding. Berkeley's Principles of Human Knowledge, with the writings of Hume, Mill, Bain and Spencer. Two hours. Courses 5 and 6 alternate.

7. Epistemology.—Examination of philosophical doctrines of ancient and modern times with a critical study of Aristotle and Plato. Especial attention will be given to the contact of Platonism with Christianity. Two hours.

8. Empiricism and Rationalism.—A critical study with lectures and assigned reading. Two hours. Not given in 1900-1901.

9. History of Religions.—Primitive religions and the comparative history of religions. Courses 8 and 9 alternate. Two hours.

Education.

Mr. ————————

The aim of the courses offered by the Department of Education is two-fold: (1) to give the general student who does not intend to teach an acquaintance with the nature and scope of education as an important function of society; and (2) to provide the student who looks forward to teaching as his profession with a professional training that will make him an efficient teacher and enable him to deal with educational questions in a broad and scientific manner.

1. History of Education.—General history of education with especial reference to America. Three hours, either semester.

2. Educational Theory.—A critical study of the educational doctrines of Plato, Comenius, Locke, Rousseau, Pestalozzi, Spencer. Two hours, either semester.

3. Secondary Education.—Development of secondary education in Europe and America. Two hours, either semester. Courses 2 and 3 alternate, Course 3 not given 1900-1901.

4. Child Study.—A study of the physical and mental growth of the child. Two hours, either semester. Not given 1900-1901.

5. School Hygiene.—Practical study of the application of hygiene to the life of the school. One hour, either semester. Not given 1900-1901.

FOR GRADUATES AND ADVANCED UNDERGRADUATES.

6. Supervision and Management.—A practical study of school superintendence for county and city superintendents of schools, and of the problems belonging to the work of principals of high, grammar or country schools, especially organization and grading of schools. Two hours, either semester.

7. Application of Psychology to Teaching.—Practical course for teachers, with discussions and collateral readings. Two hours, either semester.

8. General Method.—The ends of education, the means of attaining the ends, relative worth of studies, correlation, etc. Two hours, either semester. Courses 7 and 8 will alternate unless there is a demand for both. Course 8 not given in 1900-1901.

After the department is thoroughly organized, seminars in education will be given:

1. Seminar in the curriculum of the Elementary School.

2. Seminar in the curriculum of the Secondary School.

EQUIPMENT.

There is no special equipment for the department of Philosophy and Education, except that the psychological laboratory will be open to students of this department. The library, too, has a good start in a special departmental library. Material to illustrate the courses in education will be collected from the schools of the state during the coming years.

Physical Education.

Mr. Burden.

Physical education is treated as an important part of college work. The University gymnasium is fitted with the most important gymnastic apparatus, such as chest weights, rowing machine, intercostal machine, traveling parallels, rope ladder, long horse, flying rings, Swedish stall-bar, ladder, etc.

Several pieces have been added during the year, such as wet spirometer, manometer, dynamometer, for chest, back and legs, and instruments for taking physical measurements.

The main hall is forty by eighty-five feet, with a twenty-five foot ceiling. On the same floor is the office of the director, and a room for anthropometry; there is also a gallery for spectators in

the west end. The annex contains dressing-rooms, lockers, sponge and shower baths and boiler-room. Students can have the use of a private locker for a fee of one dollar per year. A deposit of fifty cents is required for the key.

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

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

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

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

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

Physics.

Professor Friedel.
Mr. Hiatt.

1. Elementary Physics.—A general non-mathematical course, treating of Mechanics, Heat, Sound, Electricity, Magnetism and Light. The course is given by lectures, supplemented by demonstrations. Students who enter the class must know Plane and Solid Geometry. A knowledge of the elements of Trigonometry, while not required for admission to the course, will be found exceedingly helpful. Four credits.

2. Advanced Experimental Physics.—This course emphasizes especially the experimental side of the science of Physics. It aims to be a critical analysis of the great masterpieces that have been produced in this science during the past centuries. A knowledge of Trigonometry is required. Four credits.

3. Introductory Mathematical Physics.—For those students who have completed the elementary course, or its equivalent, and who, in addition thereto possess a working knowledge of Differential and Integral Calculus. The course introduces the student to the development and representation of the more important principles of Physics by the aid of the powerful analytical methods of mathematics. Three credits.

4. Advanced Mathematical Physics.—This is a continuation of course 3. A thorough working knowledge of Differential Equations, as well as a knowledge of the elements of the Theory of Variations and Spherical Harmonics, is required. Four credits.

5. Theory of Sound.—A mathematical treatment of Acoustics. The subject is elaborated under the divisions: Velocity of propagation of sound waves in gases and liquids; intensity, pitch, timbre, and interference of sound waves; energy of wave motion pertaining to sound; the phenomena of vibrating strings and membranes; and phenomena pertaining to the flexion of bars. Two credits.

6. Elementary Laboratory Physics.—A laboratory course for beginners. Students are set to work to make experiments, illustrative of the principles elaborated in the theoretical course of elementary physics. Each student has at least fifty experiments to perform during the course. The results of these experiments are carefully written out in a laboratory note book and handed to the assistant for approval or correction. One credit.

7. Electrical Standards.—A laboratory course for the accurate determination of electrical units and the making of copies from standard units, now on hand. One credit.

FOR GRADUATES AND ADVANCED UNDERGRADUATES.

8. Geometrical Optics.—A treatment of the principles involved in the phenomena of light under the following subdivisions: Reflection and refraction of light; systems of lenses; the theory of aberration; thin pencils; dispersion and achromatism; the eye; optical instruments. Required, a knowledge of General Physics, Plane and Solid Analytical Geometry, and Calculus. Two credits.

9. Mathematical Theory of Electricity and Magnetism.—This course is offered to students who have had adequate courses in Physics, Advanced Calculus, Differential Equations and Spherical Harmonics. The course develops the mathematical theories of electricity and magnetism after the manner of presentation by Poincare, Drude, Maxwell and Thomson. Four credits.

10. Fourier's Theory of Heat.—A mathematical treatment of the theory of heat, for graduate students. Students electing this course must have all the mathematical preparation required for course 6. Four credits.

11. Advanced Laboratory Physics.—This course is intended for students who have completed courses 1 and 6. The course aims to develop independent experimental ability by submitting to the student some of the more difficult problems requiring experimental observations covering a considerable period of time. One credit.

12. Photometry.—A laboratory course for the measurement and comparison of various sources of light. Measurements are made and expressed in candle power, based upon accurate standards, as well as in terms of the total energy consumed. One credit.

EQUIPMENT.

The physical lecture-room has a seating capacity for about sixty students. The lecture table is supplied with gas and water cocks and electrodes connected with the University electric-light plant. An arc-light stereopticon in the rear of the room gives opportunity for stereopticon illustrations.

The physical laboratory consists of three rooms on the same floor. Every room is supplied with gas and water cocks, as well as with electrodes capable of furnishing as high as 75 amperes. A large part of the apparatus was secured from the best makers of Europe. Some of the finely finished and peculiarly suitable instruments were made in the shop belonging to the University. The following list, which is not intended to be complete, gives some

idea of the extent of the equipment: Cathetometer, reading to twentieths of a millimeter; micrometers, reading to hundredths of a millimeter and thousandths of an inch; sphereometer; fine and coarse balances; hydrometers of various forms; calorimeters; areometer; Jolly balances; standard mercurial barometer; recording and aneroid barometers; Fahrenheit, Centigrade and Reaumur thermometers; a monochord and set of tuning forks; small siren; manometric flame apparatus; telescopes; spectrometers; binocular microscope; sets of lenses; polariscopes; photometers; galvanometers of various forms, tangent, astatic, mirror and ballistic; magnetometer; rheostats; bridges; condensers; galvanic cells of various types; keys; sounders; relays; ammeters; voltmeters; large twelve-inch induction coil; fluoroscopes; Geissler and Crookes tubes; thermopiles of various forms and degrees of sensitiveness; Toepler-Holtz machine; air pump, with large assortment of bell jars, etc.

Private Laboratories.—The basement of Deady Hall contains four rooms especially suitable for original research work. One of these is now occupied by Dr. Friedel, who is extending his investigations on the absorption of Obscure Rays of Heat. Students who are prepared to do original work have the use of these rooms to carry on their investigations.

Psychology.

Professor Hawthorne.

1. Elementary Psychology.—Open to all who are prepared to take the stndy.

Elementary Psychology includes a study of the phenomena of the intellect, sensibility and will, with constant application to the processes of education, and the psychological origin of philosophical problems. Recitations, lectures and topics. Text-books: James's Psychology; Ladd's Primer of Psychology; Titchener's Outlines of Psychology; Titchener's Primer of Psychology. Two credits.

2. Experimental Psychology.—Introductory. One hour a week.

3. Experimental Psychology. — Advanced. Open to Juniors and Seniors.

It is the aim of the laboratory to furnish every possible facility for such research work by competent students. Text-books: Scripture's New Psychology, Sanford's Experimental Psychology. Three credits.

4. General Psychology.—In this course, systematic instruction is given in general psychology, including theories of mental processes. Text-book: Ladd's Outline of Descriptive Psychology. Two credits.

5. Physiological Psychology.—Open to all who are prepared to take the study. A study illustrated by charts, models, and histological preparations, of the human nervous mechanism, of the principal relations which exist between changes in this mechanism and the activities of the mind, and a discussion of the conclusions which may be drawn from these relations respecting the nature and laws of mind. Physiological Psychology includes an account of working hypotheses, methods, experimentations, and general results. The method is, as far as possible, illustrative, with a large amount of required reading upon selected topics. Text-books: Ladd's Outlines of Physiological Psychology; Wundt's Physiological Psychology. Three credits.

6. Logic.—Deductive and Inductive. Elementary, advanced and applied. Lectures, reading and discussions. Text-books: Jevons and Welton. Two credits.

FOR GRADUATES AND ADVANCED UNDERGRADUATES.

The following courses are arranged for alternate years, to meet the requirements of those who have completed the courses in any colleges or universities, and who wish to pursue the subjects still further. The first two will be given in 1900-1901.

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

8. Applied Psychology.—One hour a week throughout the year. Application of modern psychological principles to educational subjects; outlines of the psychology of touch; its use in education; motor abilities; accuracy of movement; fundamental principles of writing and drawing; sight, color teaching; space, form teaching, drawing. Two credits.

The following courses will be given in 1901-1902:

9. Research Work in Psychology.—The object in this course is such training in accurate introspection, observation, experimenting, and the art of research as is desirable for the general psychologist. Two credits.

10. Diseases of the Mind and the Nervous System.—This course will be illustrated by models of the brain and other parts of the nervous system. Insanity and kindred subjects will be studied in connection with topical lessons. Two credits.

EQUIPMENT.

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

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

Sanskrit.

(See Latin.)

Sociology.

(See Economics.)

Zoology.

(See Biology.)

THE SCHOOL OF MUSIC.

FACULTY.

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

HISTORY OF MUSIC.

Mr. Nash.

1. From the age of primitive man to the time of Palestrina (1524 A. D.), tracing the evolution of music as an art in various countries. This is given in a course of lectures once a week, and is open to all university (college) students as an elective course for one credit, and also to all those studying in the musical department.

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

HARMONY.

Mr. Nash.

1. Harmony and Theory through suspensions. Text-book: Jadassohn. Elective. One credit.

2. Harmony and Harmonization of Melodies.—Jadassohn and Bannister. Open to all those who have taken Harmony and Theory. Elective. One credit.

3. Counterpoint.—Text-book: Richter. Open to all those who have taken courses 1 and 2. Elective. One credit. Not given in 1900-1901.

4. Form.—Text-books: Mathews and Goodrich. Open to all those who have taken courses 1, 2 and 3. Elective. One credit. Not given in 1900-1901.

THE PIANO.

Mr. Nash.

Preparatory Course.—Technique: Scales, keys, etc. Studies, Czerny, Op. 821; Duvernoy, Op. 120; Czerny, School of Velocity. Sonatinas and easier sonatas by Kuhlau, Clementi, Beethoven and others. When students are able to meet requirements mentioned under Course in Music, they will be admitted into the Freshman Year.

Freshman Year.—Technique: Little Preludes and Fugues, Bach. Studies selected from Berens, Op. 33, 3 books; Czerny, Op. 299.

Sophomore Year.—Technique: Inventions 2 and 3-voiced, Bach; Studies selected from Czerny, Op. 553 and Op. 740; Aloys Schmidt, Op. 16; Doring Octaves, Op. 24.

Junior Year.—Technique: English Suites, Bach; Studies selected from Cramer, 4 books; Clementi (Gradus); Kullak Octaves, part 2.

Senior Year.—Technique: Preludes and Fugues (Well-Tempered Piano), Bach; Studies selected from Chopin, Rubinstein, Liszt, Thalberg, Godard, Henselt and others.

Standard classic sonatas and concertos, and pieces by modern composers will be liberally used through the entire course, and no student will be expected to take the entire list of studies given, but only such as may be especially fitted to remedy individual defects.

Each student will be expected to make at least one public appearance each year at the students' recitals, and at the close of the fourth year will play a recital program entirely from memory.

SINGING.

Miss Hansen.

First Year.—Breathing, tone placing, phrasing, with appropriate exercises. Abt's Tutor.

Second Year.—Studies, Concone, Op. 9.

Third Year.—Studies, Concone, Op. 10.

Fourth Year.—Vaccai, Passages from Operas and Oratorios for the trill and cadenza.

CLASSES IN SIGHT READING.

Songs and concerted vocal music will be selected from the best German, French, English and American composers, with arias from standard operas, that may be especially adapted to the individual style and ability of each student.

Vocal lessons can be taken as an elective course for one credit. A testimonial and record of work done will be given to any student upon application at the end of any year.

ORGAN LESSONS.

Mrs. Delano.

Pipe or Reed Organ.—Special attention to phrasing and expression.

MUSICAL SOCIETIES.

Membership either active, student or associate, in the Ladies' Musical Club is open to all students in the Musical Department.

The meetings are held every three weeks, and a specialty is made of playing standard orchestral works, arranged for two pianos, eight hands, which are often analyzed and studied before they are played. In this way the student becomes familiar with the masterpieces of musical literature. These are interspersed with solo, duet and concerted numbers, both vocal and instrumental.

The Oratorio Society has produced an Oratorio in Villard Hall every year since '96. A Music Festival of three days was held last year and Haydn's Creation with a chorus of 100 voices and an orchestra of twenty-two was given under the direction of Mr. W. Gifford Nash.

A course in Music leading to the degree of Bachelor of Music (Mus. Bac.) will be offered in 1900-1901. In this course the piano will be taken as a major study, and history of music, harmony, counterpoint, form, modern languages, English literature, history, and a certain number of electives, will be required of all candidates for this degree. For particulars, address the director.

University students, as candidates for degrees other than Mus. Bac., can take any of the theoretical courses as electives.

EXPENSES AND MISCELLANEOUS.

To all those taking piano work as an elective course, terms for piano lessons will be $4.00 per month for one 45-minute lesson per week, invariably in advance. Such students will be expected to practice from one to two hours per day. Two credits.

For those not able to afford these terms, good instruction can be had from the assistant in piano for $2.00 per month, and along the same lines of study as those given by Mr. Nash. Such students will also appear in the student recitals in Villard Hall, and the director will hear them play, and generally oversee their work once a month in the presence of the teacher.

No deduction will be made for absence from lessons, except in case of protracted sickness, when half the loss will be sustained by the department, and all lessons falling upon legal holidays or vacation days will not be made up. Instruments for practice, sheet music and books will be furnished at the student's expense.

Taken as an elective course, the same rules and regulations regarding absences from recitations and progress made will be enforced as are customary in other departments of university work.

Pianos can be rented for $3.00 per month. Early application should be made to Mr. George F. Craw or F. A. Rankin, both of Eugene, before the fall semester begins, as the supply is limited.

In many places where boarders are taken there are pianos, the use of which can be had for a nominal figure.

The Director studied the piano in Europe as a specialty. In Leipzig, Germany, he studied for one year in the Conservatorium; then for three years with the celebrated teacher, Professor Martin Krause, and later with Julian Pascal, of London, England.

EQUIPMENT.

The music-rooms are situated in the south entry of the dormitory. The piano-room is furnished with two pianos, which are both used with advanced students, the second piano taking the accompaniments to such works as were composed for a solo piano with orchestra. The singing-room, which is in the north entry of the dormitory, has one piano. The Director's musical library is at the disposal of all music students, for reference, and besides the standard works for piano, contains most of the operas in the modern repertoire, including Wagner's Niebelungen Ring, Lohengrin, Tannhauser and Parcifal, and Puccini's La Boheme. Also most of the standard oratorios and symphonies arranged for four hands. In the University library are many works on history of music, Groves' Dictionary of Music and Musicians, and the latest books on music by such men as Henderson and Krehbiel.

UNIVERSITY ACADEMY, OR PREPARATORY SCHOOL.

The University has two years' work preparatory to the Freshman year which corresponds to the 11th and 12th grades of the High School. These two years will be retained only until the High School system of the state has been organized and High Schools in general have courses covering four years.

REQUIREMENTS FOR ENTRANCE.

Students who have finished the tenth grade, i. e., the second year of the High School, in accredited schools, are entitled to entrance to the University Academy without examination, Provided the home school offers no higher grade. Otherwise students are expected to finish the work in their home school.

Students from schools not accredited to the University must present evidence of having satisfactorily completed the ninth and tenth grades of the High School.

NINTH GRADE STUDENTS.

The University has made arrangements with the Eugene High School whereby students who have finished the ninth grade of

the High School in towns where no higher work can be offered, may enter the University Academy and take four hours' work, and the balance at the Eugene High School. For such instruction a small tuition fee will be charged at the High School.

HIGH SCHOOL COURSES.

Hon. J. H. Ackerman, State Superintendent of Public Instruction and the President of the University, will publish in due time a High School Manual for the High Schools of Oregon, which will contain suggestive High School courses that will provide for students expecting to enter either the University Academy or the Freshman year of the University.

Students expecting to enter the University should plan their work with reference to the requirements for entrance to the University Academy, or the Freshman Year.

COURSE OF STUDY.

The work for the two years of the University Academy covers a total of thirty-four hours, seventeen hours per week per year, as follows:

Latin, Greek, French, German, according to requirement for entrance to Freshman class.....8 or 9 hours
Plane and Solid Geometry.....5 hours
Algebra, Higher .....5 hours
Physics, Chemistry, Botany, according to requirements for entrance to Freshman class.....4 hours
History .....4 hours
Elective .....1 or 2 hours

Electives must be chosen from the requirements for entrance to the Freshman Class until such requirements have been fulfilled. In like manner students coming to the University only partly prepared for the Freshman Class, will take from the above list such subjects as are necessary to complete their preparation, and the balance of the required number of hours in electives, which may be in such work of Freshman year as students are prepared for.

DETAILS OF COURSE OF STUDY.

A detailed description of the work in the various subjects in the University Academy will be found in the proper place, under the Requirements for Entrance.

THE SCHOOL OF MEDICINE.

FACULTY.

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

ORGANIZATION.

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

The course in the School of Medicine leads to the degree of Doctor of Medicine. It covers a period of four years of collegiate study, each year representing six months in actual residence.

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

The work of the first two years deals with the so-called scientific or laboratory branches; while that of the last two years includes the principles and practice of medicine and surgery, their associated specialties and the application of scientific or laboratory methods to clinical experience.

REQUIREMENTS FOR ENTRANCE.

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

ARTICLE III.

Section I. Each college holding membership in this Association shall require of each student, before admission to its course of study, an examination, the minimum of which shall be as follows:

1. In English, a composition on some subject of general interest. This composition must be written by the student at the time of the examination, and should contain at least 200 words. It should be criticised in relation to thought, construction, punctuation, spelling and handwriting.

2. In Arithmetic, such questions as will show a thorough knowledge of common and decimal fractions, compound numbers, and ratio and proportion.

3. In Algebra, such questions as will bring out the student's knowledge of the fundamental operations, factoring and simple quadratic equations.

4. In Physics, such questions as will discover the student's understanding of the elements of mechanics, hydrostatics, hydraulics, optics and acoustics.

5. In Latin, an examination upon such elementary work as the student may offer, showing a familiarity usually attained by one year of study; for example, the reading of the first fifteen chapters of Caesar's Commentaries, and the translation into Latin of easy English sentences involving the same vocabulary.

Sec. 2. In place of this examination, or any part of it, colleges, members of this Association, are at liberty to recognize the official certificates of reputable literary and scientific colleges, academies, high schools and normal schools, and also the medical student's certificate issued by any state examining board covering the work of the foregoing entrance examination.

Sec. 3. Colleges, members of this Association, may allow students who fail in one or more branches in this entrance examination the privilege of entering the first year course, but such students shall not be allowed to begin the second course until the entrance requirements are satisfied.

Sec. 4. Colleges, members of this Association, are free to honor official credentials issued by medical colleges of equal requirements, except in the branches of study embraced in the last year of their own curriculum.

Sec. 5. Candidates for the degree of Doctor of Medicine in the year 1899 and thereafter shall have attended at least four courses of medical instruction, each course of at least six months' duration, no two courses of which shall have been in the same calendar year.

Sec. 6. Colleges, members of this Association, are free to give to students who have met the entrance requirements of the Association, additional credit for time on the four-year course, as follows: (a) To students having the A. B., B. S., or equivalent degrees from reputable literary colleges, one year of time. (b) To graduates and students of colleges of homeopathic or eclectic

medicine, as many years as they attended those colleges, provided they have met the previous requirements of the Association and that they pass an examination in materia medica and therapeutics. (c) To graduates of reputable colleges of dentistry, pharmacy and veterinary medicine, one year of time.

Certificates of completion of prescribed courses in the University of Oregon in chemistry, physiology, osteology and syndesmology are accepted as equivalents for first year's work, except materia medica.

Examinations for matriculation may be arranged with the Dean at any time.

Special examinations in Latin and Physics for conditioned matriculates will be held during the first week of the session; during the same period the Fall examinations will be held for advancement to second, third or fourth year standing for those who failed to attain the requisite number of credits in the Spring examinations. This privilege does not apply to students who may have failed in their finals for the degree. For such there is each year but one examination, which occurs in March.

It is earnestly recommended to the student intending to take the entrance examination, that a careful review be given the studies mentioned in order that he may be spared the humiliation of rejection.

Before admission, every student is required 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, and pay his fee. New students will be assigned seats in the order of date of matriculation.

COURSE OF STUDY.

FIRST YEAR.

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

Examinations at the end of year in Osteology and Syndesmology, Principles of Chemistry, Elementary Materia Medica, Physiology (Prox. Principles and the Blood).

SECOND YEAR.

Anatomy, with dissections, finished; Normal Histology, finished; Physiology, finished; Chemistry, with laboratory work, finished;

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

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

THIRD YEAR.

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

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

FOURTH YEAR.

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

Examinations: Final in above.

COURSES OF INSTRUCTION.

SURGERY.

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

Professor Holt C. Wilson will deliver didactic lectures on Principles and Practice of Surgery, and clinics in Surgery will also be

given by Professor W. H. Saylor, Professor Wm. Jones and Dr. Andrew C. Smith. Professor George F. Wilson will deliver a practical course upon operative and military surgery, and will give special attention to clinics on fractures and fracture apparatus.

CHEMISTRY AND TOXICOLOGY.

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

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

THEORY AND PRACTICE OF MEDICINE.

During the third and fourth years, as per outline, Professor Mackenzie will bring into prominence, in this branch, the essentials of theoretical and practical medicine, dwelling more particularly upon those subjects which will be likely to prove of most substantial use to the young practitioner, while not neglecting theoretical essentials. Teaching in this branch will be illustrated by clinics at the college and hospitals. Professor Wells will deliver lectures upon Diseases of Children; Professor Josephi upon Diseases of the Nervous System; Dr. Wheeler upon Hygiene, and Dr. Geary upon Physical Diagnosis. Professors Bell and Mackenzie will hold medical clinics at St. Vincent's Hospital, and Professor H. C. Wilson at Good Samaritan Hospital.

ANATOMY.

Professor Cauthorn will give instruction in General and Descriptive Anatomy. This subject will be considered during first and second years and finished at the end of the second year. These lectures will be illustrated by actual dissections, charts and drawings, and special attention will be given to the surgical relations of the subject. During the first year a course on Osteology and Syndesmology will be completed. A "bone-room" has been added to the Equipment of the college. This will be conducted for the benefit of such students as desire to borrow bones for purposes of study. Those wishing to avail themselves of this privilege will be required to deposit a guarantee fee of $3.00 each, which will be returned at end of session, if no bones stand charged against the depositor.

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

MATERIA MEDICA AND THERAPEUTICS.

Prof. Bell will direct attention during 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 attention given to electro-therapeutics.

BACTERIOLOGY.

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

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

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

MICROSCOPY, HISTOLOGY AND PATHOLOGY.

Dr. Yenny will deliver a practical course on the use of the microscope, histology and pathology. This will include the study of microscopical examination of pus, blood, urine, etc.

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

OBSTETRICS.

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

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

GYNÆCOLOGY.

This branch will be taught didactically during third and fourth years by Professor Tucker. Professor A. J. Giesy will give clinics in Gynaecology once each week at Good Samaritan Hospital. Practical instruction will be given in the use of the speculum and other instruments for the diagnosis and treatment of diseases peculiar to women, and every opportunity given for students to familiarize themselves with their use and application.

PHYSIOLOGY.

Lectures upon this subject will be delivered during first and second years by Professor M. A. Flinn and Dr. A. D. Mackenzie, and will be illustrated by demonstrations which will occupy a prominent place.

DISEASES OF THE NERVOUS SYSTEM.

Lectures on Nervous Diseases including Insanity will be delivered by Professor Josephi during fourth year. In this course special Nervous Diseases not included in the lectures of others will be dwelt upon.

OPTHALMOLOGY, OTOLOGY, RHINOLOGY, AND LARYNGOLOGY.

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

GENITO-URINARY DISEASES.

Professor Saylor will, in addition to clinics on surgery at the Good Samaritan hospital, deliver didactic lectures on Diseases of the Genito-Urinary Organs during third and fourth years. Lectures will be illustrated by drawings, models, etc., and numerous cases at the bedside in the hospital. Practical instructions in the use of instruments will be given.

PÆDIATRICS.

Professor G. M. Wells will bring before the students during third and fourth years a wide range of subjects in connection with

this chair. From the first hour of life the infant requires a special study. Its diet and environments are of paramount importance in the first few years of life. Then the great question of schooling and school hygiene are now coming to the front as never before. The alarming increase of myopia among the young appeals to this chair for prevention as no other. The relation of paediatrics to the several branches of scientific medicine will be emphasized.

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

DERMATOLOGY.

Dr. Wm. E. Maxwell will deliver lectures on Dermatology during third year.

MEDICAL JURISPRUDENCE.

Hon. L. B. Cox will deliver lectures embracing the more essential points of this interesting branch of medicine during the fourth year.

PHYSICAL DIAGNOSIS.

In addition to the general instruction on this important subject, Dr. Geary will hold clinics at the college for special work in this branch.

HYGIENE.

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

LECTURES.

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

HOSPITAL CLINICS.

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

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

St. Vincent's new hospital is located only a few blocks from the college building on a tract of five acres. The portion now completed and occupied is 260 feet long, an average of 60 feet wide

and is six stories in height, including the basement. It contains 350 beds, and is admirably fitted, in other respects, with the most modern furnishings and appliances.

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

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

Hospital clinics are held five days of each week during the session. Opportunities are given students to make diagnosis of disease and prescribe treatment therefor; and operations of endless variety are performed (in presence of the class), according to the most advanced methods of modern surgery. An additional weekly medical clinic at the Good Samaritan Hospital has been arranged for the ensuing session.

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

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

These hospitals, already established and in successful operation for many years, present most excellent and unequaled 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 met with in much larger cities.

The faculty, while not disparaging the value of didactic lec-

tures, makes the system of clinical instruction occupy a prominent place in the curriculum, and it will be the aim of its members to make the instruction in all departments as complete and efficient as possible.

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

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

HOSPITAL APPOINTMENTS.

Arrangements have been perfected by which the college has in its gift two appointments each year of house surgeons to the Good Samaritan Hospital. Each appointment is for one year, during which time board and lodging will be furnished free at the hospital. An excellent opportunity is thus afforded to the graduate to acquire in the wards of a well-equipped hospital, without any expense, a practical knowledge by clinical experience and actual practice. The house surgeons of St. Vincent's Hospital are also supplied from the alumni of this college.

LIBRARY.

A medical library, known as "The R. B. Wilson Library," has been established at the college building. The nucleus for this is a gift of the medical libraries of the late Dr. R. B. Wilson, and Dr. Rodney Glisan. This has been added to by gift from the Federal Government and will be further enlarged from time to time. Students will be allowed the use of books (not to be removed from the building) under such rules as the college may prescribe.

LOCATION AND EQUIPMENT.

The new college building, located corner Twenty-third and Lovejoy streets, opposite Good Samaritan Hospital, was completed and occupied during the session of 1892-93. It is a model of convenience, being furnished with all the aids to medical education which modern advancement requires. Laboratories for chemical, histological, pathological, bacteriological and other work are provided, and arrangements made for special attention to these important practical departments. The laboratory equipment has been doubled; extensive additions made to the apparatus in microscopy, and new instructors added to the faculty for more extensive and specialized work in Histology and Pathology. The dissecting-

room is most conveniently arranged, is light and airy and is furnished with artificial stone tables of special design and electric fixtures for artificial illumination.

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

REQUIREMENTS FOR GRADUATION.

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

EXPENSES.

All fees payable in advance.

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

To those who enter at 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	Free
One-quarter examination fee	7.50

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

Second year: Matriculation	$ 5.00
Fee for course	130.00
One-third examination fee	10.00
Third year: Fee for course	130.00
One-third examination fee	10.00
Fourth year: Fee for course	30.00
One-third examination fee	10.00

To those who enter beginning of the 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	50.00
One-half examination fee	15.00

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

Fourth year: Matriculation	$ 5.00
Fee for course	100.00
Examination fee	30.00

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 either Registrar, University of Oregon, Eugene, or Professor Josephi, Portland.

BOARDING.

Good board with rooms and all the usual accommodations, can be obtained in the vicinity of the college at rates varying from $4 to $6 per week.

MISCELLANEOUS.

The opening lecture of the thirteenth regular annual session will be delivered at 9 A. M., Monday, October 1, 1900. Students are requested to be in attendance at the commencement of the session, so that they may not lose the benefit of knowledge to be derived from the opening lectures.

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

PROF. S. E. JOSEPHI, M. D.,
Dean of the School of Medicine,
Room 610 Dekum Bldg., Third and Washington Sts, Portland, Or.

THE SCHOOL OF LAW.

FACULTY.

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

HISTORY.

The year 1899-1900 completes the seventeenth year of the School of Law. More than two hundred graduates of this school are scattered over the Pacific Northwest, of whom an unusually large number, in comparison with other schools of law in the United States, have occupied or are now occupying official positions in connection with the law.

COURSE OF STUDY.

The entire course consists of two sessions of thirty weeks each, from October to May, inclusive.

Junior Year—

1. The Common Law.
2. The Law of Contracts.

Senior Year—

1. Pleading.
2. Evidence.
3. Equity.
4. Constitutional Law.
5. Negotiable Paper.

TEXT BOOKS.

The text-books in the Junior year are Blackstone, Kent and Parsons on Contracts. In the Senior year, Gould on Pleading, Vol. 1 of Greenleaf on Evidence, Pomeroy on Equity, Black on Constitutional Law, and the General Laws of Oregon. "Cox's Questions" will be found useful in the work of the first year. The cost of Blackstone and the Question Book is $12.50, and they can be had from the professor in charge.

LIBRARIES.

By the courtesy of the Multnomah Law Library Association, students are permitted to consult the books belonging to it. They can also obtain the advantage of the Portland Library on payment of the nominal subscription of one dollar a year. The number of volumes in the Multnomah Law Library is nearly 7,000, and in the Portland Library, 25,000.

LOCATION.

The School of Law is located in Portland and occupies the rooms of the Portland Business College. Evening sessions only are held. The sessions begin at 7:15 P. M., and the method of instruction is the lecture method. In the Junior year, lecture days are Tuesdays, Thursdays and Saturdays.

EXPENSES.

The tuition fee is $60.00 (in gold) per session, payable in equal installments on the 5th day of October, January and March. Regular attendance is necessary, and no deduction can be made on account of absence. The final examination fee (non-returnable) is $10.00. Board and room can be had in Portland for from $4.00 to $6.00 per week.

MISCELLANEOUS.

The year begins September 27, 1900. Applications for admission should be addressed to

PROF. RICHARD H. THORNTON,
Dean of the School of Law,
502 Goodnough Bldg., Portland, Or.

STUDENTS.

THE GRADUATE SCHOOL.

Boardman, Pres. Henry L. (in absentia) ..... McMinnville
Church, Earl H. ..... Eugene
Durrette, C. W. (in absentia) ..... Mount Tabor
Miller, Laura ..... Eugene
Renshaw, Lulu ..... Eugene
Roe, Ida B. ..... Hood River
Sanders, Prin. A. M. (in absentia) ..... Dallas
Taylor, Blanche ..... Eugene
White, Frank P. ..... Eugene
Young, Clara G. ..... Astoria

THE ACADEMIC COLLEGES AND SCHOOLS.

Adams, Waldo ..... Oregon City
Ankeny, Dollie A. ..... Eugene
Alloway, Daisie E. ..... The Dalles
Auten, Myrtie ..... Eugene
Angell, Homer D. ..... The Dalles
Armitage, Stella ..... Coburg
Applegate, Moray L. ..... Klamath Falls
Bean, Condon ..... Salem
Bloch, William ..... La Grande
Bishop, Clarence M. ..... Salem
Beattie, William Gilbert ..... Oregon City
Baldwin, Edward D. ..... The Dalles
Boyd, Nell ..... Klamath Falls
Bradley, Marie ..... Medford
Bickers, Hazel ..... Salem
Blythe, Edward N. ..... Hood River
Baird, Oscar E. ..... Portland
Burr, Annette ..... Eugene
Bannard, Susie P. ..... Brownsville
Bollman, Lenthal A. ..... Elmira
Bilyeu, Coke I. ..... Eugene
Cooley, Oleta ..... Brownsville
Campbell, Charles L. ..... The Dalles
Campbell, George R. ..... The Dalles
Copple, Claude E. ..... Hood River
Cradlebaugh, Rudy B. ..... Portland

Calef, Ida A. ..... Coburg
Currin, Lulu W. ..... Cottage Grove
Coad, Edward S. ..... Dallas
Craig, Lulu M. ..... Eugene
Casteel, Calvin ..... Cottage Grove
Carroll, Walter F. ..... Eugene
Campbell, Herbert J. ..... Chemawa
Crawford, Elvin ..... Eugene
Davis, Carl ..... Harrisburg
Dodge, Ira L. ..... Ashland
Densmore, Harvey B. ..... Eugene
Daisley, Marguerite A. ..... Pomeroy, Wash.
Daisley, Mary A. ..... Pomeroy, Wash.
Dillard, Walter B. ..... Goshen
Dautoff, Jacob D. ..... Portland
Davenport, Edward D. ..... The Dalles
Driver, Grace ..... Eugene
Dent, Hawthorne K. ..... Portland
Elkins, Willard A. ..... Dallas
Esson, Clara G. ..... McMinnville
Eaton, Allen H. ..... Union
Elkins, Dillard A. ..... Dallas
Edwards, Frederick A. ..... Mayville
Folck, Roy E. ..... Silverton
Frazer, Arthur ..... Eugene
Fountain, Claude R. ..... Klamath Falls
Foulkes, Glenn ..... Portland
Ford, Olin F. ..... Eugene
Ford, Burgess F. ..... Eugene
Fisher, Minnie ..... Fairmont
Fisher, Chester C. ..... Baker City
Gray, Clyde E. ..... Ashland
Grider, Richard L. ..... Seiad Valley, Cal.
Gamber, Arthur J. ..... Albany
Gray, Bruce ..... Prineville
Gorrell, Oscar ..... Stephens
Gale, Leonore E. ..... Eugene
Gibbs, Susie B. ..... Eugene
Goodall, George O. ..... La Grande
Gilbert, James H. ..... Watsonville, Cal.
Geddes, Daisy A. ..... Sodaville
Geddes, Alfred L. ..... Sodaville
Goodrich, Luke E. ..... North Yamhill

Green, Leon D. ..... North Yakima, Wash.
Hunt, Ralph B. ..... Bandon
Hughes, William G. ..... Heppner
Hammond, Thos. W. ..... Ashland
Handsaker, John J. ..... Pleasant Hill
Holt, Victor L. ..... Eugene
Hooker, Louis E. ..... Salem
Hiatt, Arthur C. ..... Baker City
Hudson, Florence A. ..... Tangent
Hendricks, Ruby V. ..... Eugene
Harder, Benjamin E. ..... Portland
Humbert, G. S. O. ..... Eugene
Hendricks, Elma H. ..... Eugene
Hawthorne, Minnie L. ..... Eugene
Hemenway, Ansel F. ..... Springfield
Hemenway, Oscar E. ..... Springfield
Hemenway, Marie ..... Eugene
Horn, Marion F. ..... Smithfield
Hamaoka, Kio I. ..... Yamaguchi, Japan
Holmes, Amy M. ..... Astoria
Hammond, Bessie W. ..... Medford
Johnson, Albert W. ..... Coquille City
Johnson, William H. ..... Jacksonville
Johnson, Esther E. ..... Eugene
Johnson, Faith ..... Eugene
Jakway, Isabelle ..... Portland
Jakway, Bernard C. ..... Portland
Jackson, Merl ..... Florence
Jackson, Chris. W. ..... Florence
Jones, Louise ..... Dayton
Knox, Duke D. ..... Cottage Grove
Knox, Roy ..... Cottage Grove
Kuykendall, Sybil E. ..... Eugene
Kinsel, Frank H. ..... Eugene
Kita, Naojiro ..... Oska, Japan
Lister, Mildred S. ..... Independence
Loveridge, Ruth ..... Eugene
Lewis, Fred W. ..... Prineville
Lamb, Harry Stanley ..... Monmouth
Matlock, Benjamine F. ..... Heppner
McCornack, Condon ..... Eugene
McArthur, Clifton N. ..... Portland
Moore, Charles R. ..... Brownsville

Miller, Mabel D. ..... Eugene
Miller, Kenneth C. ..... Eugene
Miller, Winnifred K. ..... Eugene
Meserve, Albert E. ..... Portland
McElroy, John Coleridge ..... Eugene
McAlister, Mary ..... Eugene
Moon, Edward R. ..... Kelso, Wash.
Moist, Joseph A. ..... Lebanon
Morris, Delia D. ..... Florence
Moore, Charles F. ..... Cresswell
Myers, Verna E. ..... Harrisburg
Norris, Rea ..... Oregon City
Ostrander, Guy ..... Union
Platts, John B. ..... Eugene
Payne, Clyde O. ..... Ashland
Paddock, Arthur D. ..... Clackamas
Patterson, Harriette ..... Eugene
Pickel, Adele J. ..... Medford
Perkins, Neva ..... Cottage Grove
Patterson, Elmer M ..... Portland
Peterson, Julius O. ..... Oregon City
Renshaw, Roy ..... Eugene
Ross, Charles V. ..... Lebanon
Redmond, Charles A. ..... McMinnville
Robley, Roy R. ..... Ashland
Russell, James O. ..... Monmouth
Raulston, John H. ..... Adams
Spencer, Walter V. ..... Thatcher, Wash.
Starr, Elmer G. ..... Harrisburg
Spaulding, Roy M. ..... Redlands, Cal.
Stevens, Samuel ..... Oregon City
Strange, F. A. ..... Ashland
Stanton, Cole E. ..... Roseburg
Spencer, Bernard C. ..... Ashland
Straub, Mary E. ..... Eugene
Sweet, Hartford ..... Mount Aetna, Ia.
Scarbrough, Martin M. ..... Cresswell
Stubling, Arthur C. ..... The Dalles
Smith, Richard S. ..... Klamath Falls
Spaulding, Fred ..... Redlands, Cal.
Stockton, Frederick ..... Ballston
Stockton, Holt ..... Ballston
Sears, Sadie A. ..... Ballston

Sears, Vestella B. ..... Ballston
Schneider, Alta A. ..... Eugene
Sanders, Carleton E. ..... The Dalles
Shives, Alexander C. ..... Buena Vista
Tiffany, Albert R. ..... Cottage Grove
Tomlinson, Vernon W. ..... Woodlawn
Thayer, Frederick G. ..... Oregon City
Tyree, Joseph E. ..... Eugene
Thornton, A. Lee ..... Roseburg
Tyree, Bessie M. ..... Eugene
Travis, Ella F. ..... Eugene
Taylor, George N. ..... Eugene
Thompson, Marie J. ..... Eugene
Veatch, Elbert S. ..... Cottage Grove
Van Dyke, Edward S. ..... Grant's Pass
Veatch, Ermine ..... Cottage Grove
Whittlesey, Walter L. ..... Portland
Wagner, Benjamine F. ..... Ashland
Winstanley, John B. ..... Salem
Wagner, Charles E. ..... Ashland
Wigle, Nellie S. ..... Brownsville
Walton, Pauline ..... Eugene
Waltz, Arthur B. ..... Baker City
Ware, Joel B. ..... Eugene
Wilson, Edith ..... Pleasant Hill
Wilson, Kate ..... Pleasant Hill
Willoughby, Ray ..... Eugene
Wold, Grace ..... Eugene
Warfield, Harriett ..... Eugene
Wold, Irving ..... Eugene
Whipple, Herbert J. ..... Cheyenne, Wy.
Waddell, David M. ..... McMinnville
Williams, Thomas L. ..... La Grande
Young, Siegfried ..... Astoria
Ziegler, Frederick J. ..... Portland

THE SCHOOL OF MUSIC.

Auten, Myrtle ..... Eugene
Bickers, Hazel ..... Salem
Bilyeu, Coke ..... Eugene
Bourne, Florence ..... Eugene
Carroll, Camille ..... Eugene
Cockerline, Winnie ..... Eugene

Densmore, Maud ..... Eugene
Ford, Carrie ..... Eugene
Ford, Sadie ..... Eugene
Ford, Ivy ..... Eugene
Frazer, Arthur ..... Eugene
Friendly, Theresa ..... Eugene
Gray, Gertrude ..... Eugene
Geddes, Daisy ..... Sodaville
Goldsmith, Frieda ..... Eugene
Griffin, Lizzie ..... Eugene
Hawthorne, Pearl ..... Eugene
Horn, Emma ..... Eugene
Jones, Louise ..... Dayton
Kays, Leone ..... Eugene
Kays, Myrtle ..... Eugene
Kuykendall, Sybil ..... Eugene
Kuykendall, Mabel ..... Eugene
Moore, Grace G. ..... Creswell
Renshaw, Lulu ..... Eugene
Smith, Winnie ..... Eugene
Van Dyke, Edward S. ..... Grant's Pass
Warfield, Mary ..... Eugene
Walton, Pauline ..... Eugene
Washburn, Martha ..... Eugene
Young, Clara G. ..... Astoria

THE SCHOOL OF MEDICINE.

Adams, E. Martin ..... McMinnville
Allen, Major M. ..... Sandon, B. C.
Barber, John R., A. B. ..... Portland
Bales, C. W. ..... Portland
Biggers, G. L. ..... La Grande
Bowles, Chas. W. ..... Tacoma, Wash.
Bowen, J. A. ..... Portland
Brooks, B. F. ..... Silverton
Bridgford, Wayne, A. B. ..... Albany
Carrico, J. H., A. B. ..... Portland
Chamberlain, Charles T. ..... Portland
Chance, Arthur W., D. D. S. ..... Portland
Cline, Jean, D. D. S. ..... Portland
Conrardi, L. L. ..... Sandwich Islands
Davis, Grace V. ..... Portland
De Vaul, Oscar ..... Pilot Rock

Edwards, Chas. S., A. B. ..... Portland
Esson, A. S. ..... Gervais
Franklin, Harry H. ..... Portland
Gunning, J. M. ..... Davenport, Wash.
Goffin, O. J. ..... Gervais
Haviland, W. K., Jr. ..... Gervais
Hamilton, L. H. ..... Roseburg
Hartley, H. H., A. B. ..... Greenville
Hawk, Jew ..... China
Hedges, Fred R. ..... Oregon City
Holt, W. W., A. B. ..... Portland
Hoag, J. Morley ..... Nelson, B. C.
Kenn, C. W., A. B. ..... Salem
King, Alfred E. ..... Arlington
Kremer, Maud ..... Grant's Pass
Loeb, Sandford ..... Portland
Logan, Ray W. ..... Dallas
Manion, Katharyn C. ..... Portland
Matson, Ray ..... Woodburn
Matson, Ralph ..... Woodburn
Meyer, H. A., D. D. S. ..... Woodburn
Merryman, G. H. ..... Hillsboro
Morrison, J. C. ..... New Westminster, B. C.
Mount, Hugh S. ..... Silverton
Marshall, E. A. ..... Portland
Miller, Mary ..... Portland
Overton, O. P., A. B. ..... Rowland
Patton, Elsie ..... Portland
Rixby, Alice A. ..... Portland
Reames, F. D. ..... Portland
Ricen, Leon ..... Russia
Skinner, M. D. ..... Sandon, B. C.
Stark, A. ..... Oregon City
Sternberg, I. D., A. B. ..... Albany
Smith, F. S. ..... Portland
Scanlan, J. D. ..... Vancouver, Wash.
Shane, Louis A. ..... Portland
Stone, Alvin B. ..... Athena
Taylor, Frank M., A. B. ..... Athena
Tamiesie, G. W. ..... Hillsboro
Turley, M. V., M. D. ..... Ukiah
Ugai, K., M. D. ..... Japan
Van Vechten, Ward P., B. S. ..... Portland

Van Alstine, E. E. ..... Portland
Vernon, Mrs. Nellie ..... Portland
Wright, B. E., D. D. S. ..... Portland
Wolf, L. J. ..... Silverton
Wood, Joseph ..... Portland
White, Nina ..... Lebanon
White, F. M. ..... Lebanon
Wiltsie, S. F. ..... Seattle, Wash.
Williams, B. F. ..... Victoria, B. C.

THE SCHOOL OF LAW.

Derse, Anthony G. ..... Hillsboro
Dosch, Arno W. ..... Portland
Dunham, Frederick A. ..... Portland
Hurley, Roy H. ..... Portland
Kavanaugh, Andrew L. ..... Portland
Matsuoka, Frank Y. ..... Portland
Miles, Thaddeus W. ..... Portland
Morgan, Frederick L. ..... Hoquiam, Wash.
Parker, William E. ..... California
Price, Drew P. ..... Newberg
Price, Ore L. ..... Newberg
Root, George G. ..... Portland
Smith, William D. ..... Portland
Snelling, E. Scott ..... Portland
Watts, John F. ..... Portland
Aya, A. A. ..... Portland
Barnes, R. F. ..... Portland
Bronson, C. D. ..... Portland
Compton, A. M. ..... Portland
Dunham, F. C. ..... Portland
Herz, P. ..... Portland
Inomata, Y. ..... Portland
McGinn, C. ..... Portland
McGrew, F. O. ..... Portland
Mosessohn, N. ..... Portland
Nichols, H. A. ..... Portland
Schutt, W. D. ..... Portland
Senn, F. S. ..... Portland
Sewall, C. ..... Portland
Teuscher, J. ..... Portland
Wallace, J. L. ..... Portland
Wilson, J. G. ..... Portland

SUMMARY OF OFFICERS AND INSTRUCTORS.

Administration—		
Regents	11	
Other administrative officers	11	
		22
Instruction—		
Academic Colleges and Schools	23	
School of Music	3	
School of Medicine	27	
School of Law	5	
Special Lecturers	15	73
		95
Deduct for names appearing more than once		12
Total officers and instructors		83

SUMMARY OF STUDENTS.

Graduate School	10	
Academic Colleges and Schools	190	
School of Music	36	
School of Medicine	68	
School of Law	32	
		331
Names entered twice		11
Total students		320
Total officers, instructors and students		403

INDEX.

THE

University of Oregon

CATALOGUE

For the Year 1900-1901

AND

ANNOUNCEMENTS

For the Year 1901-1902