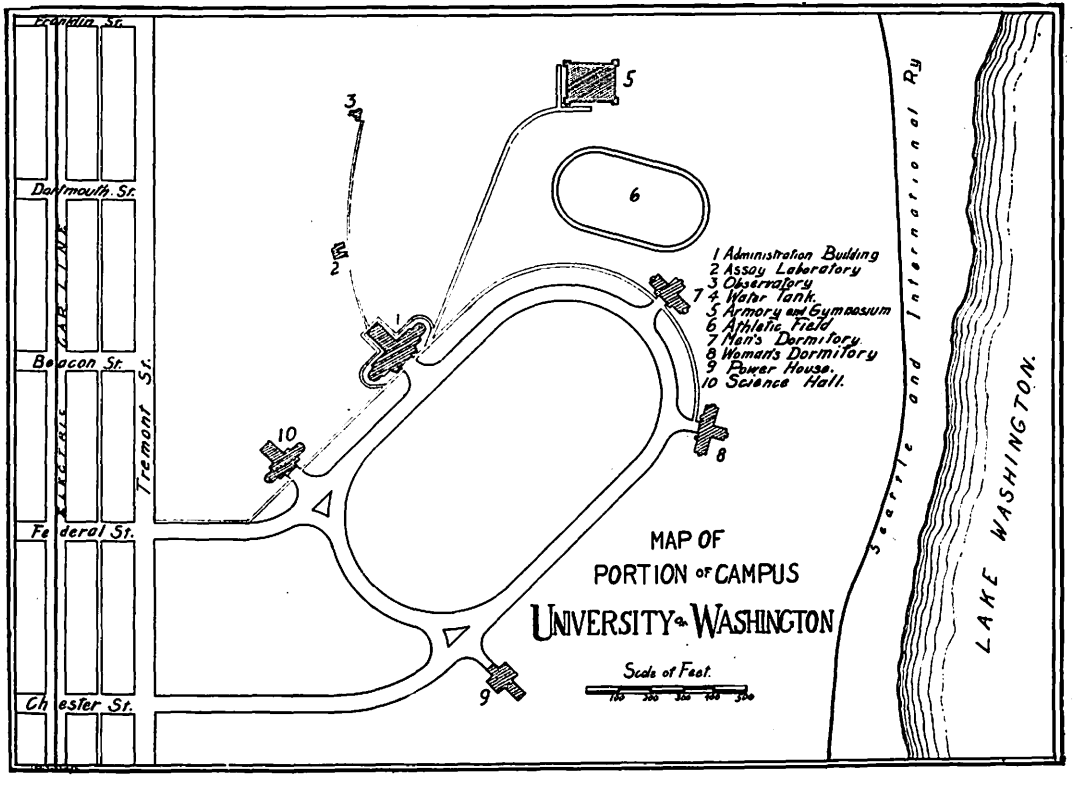
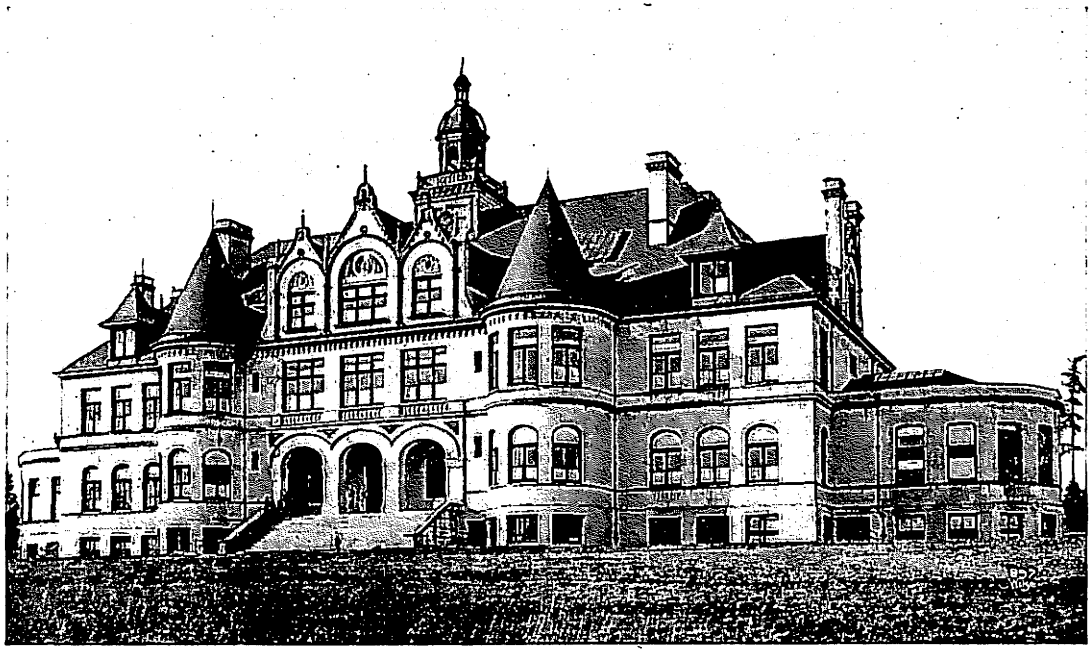
CATALOGUE NUMBER OF THE BULLETIN OF THE UNIVERSITY OF WASHINGTON

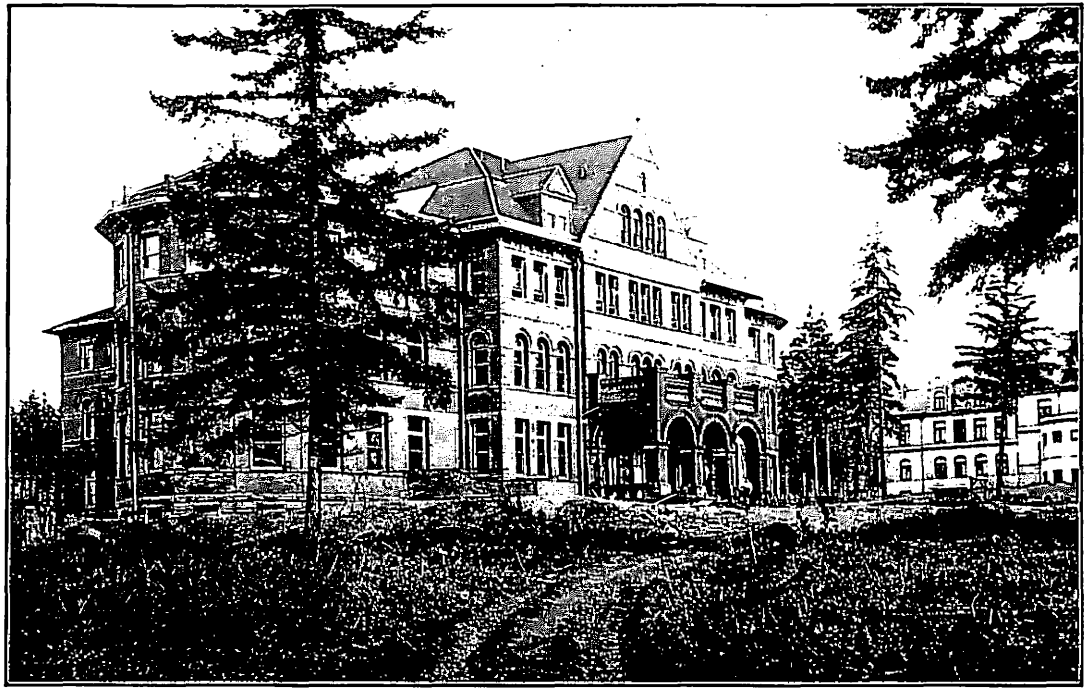
SERIES I ISSUED QUARTERLY NUMBER 2

JUNE 1902

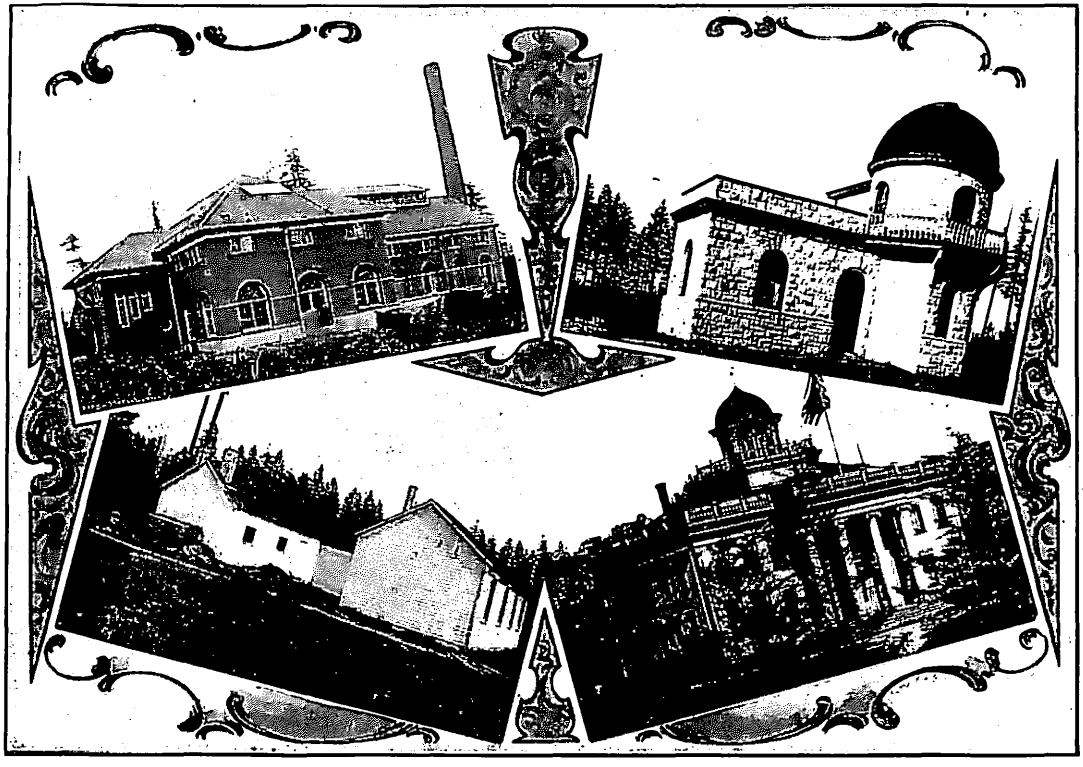

Franklin St.
Dartmouth St.
Beacon St.
Federal St.
Chester St.
KINNEAR CAR LINE
Tremont St.
Seattle and International Ry
LAKE WASHINGTON.
1 Administration Building
2 Assay Laboratory
3 Observatory
4 Water Tank.
5 Armory and Gymnasium
6 Athletic Field
7 Man's Dormitory
8 Woman's Dormitory
9 Power House.
10 Science Hall.
MAP OF
PORTION OF CAMPUS
UNIVERSITY of WASHINGTON
Scale of Feet.
100 200 300 400 500



FRONT VIEW OF THE ADMINISTRATION BUILDING.

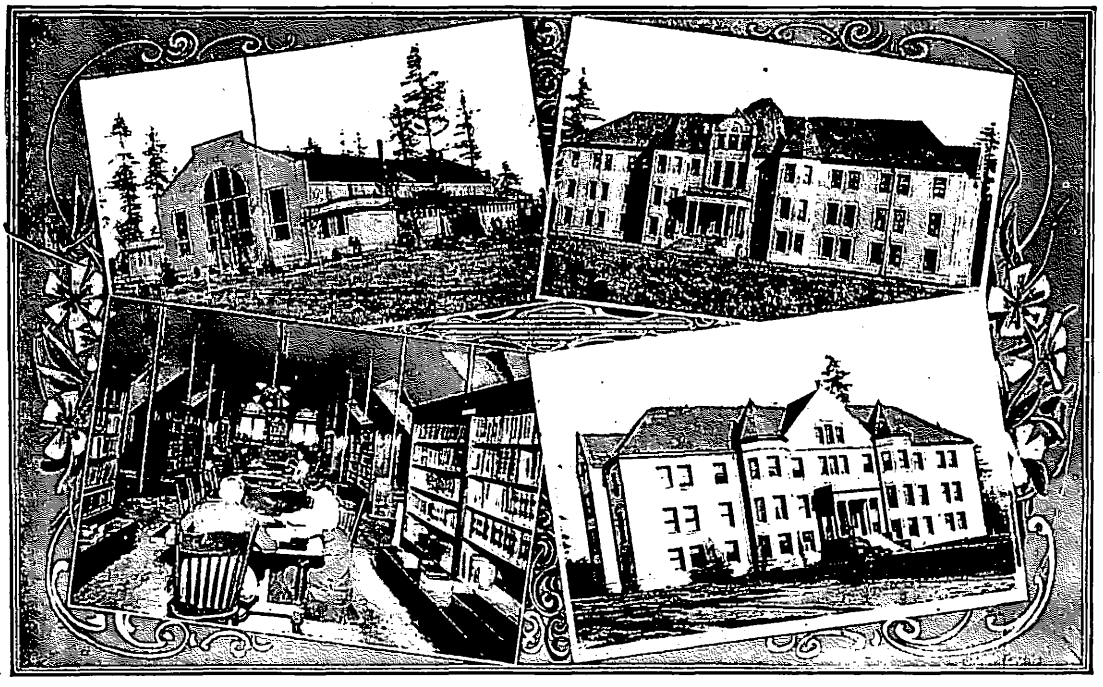


SCIENCE HALL.



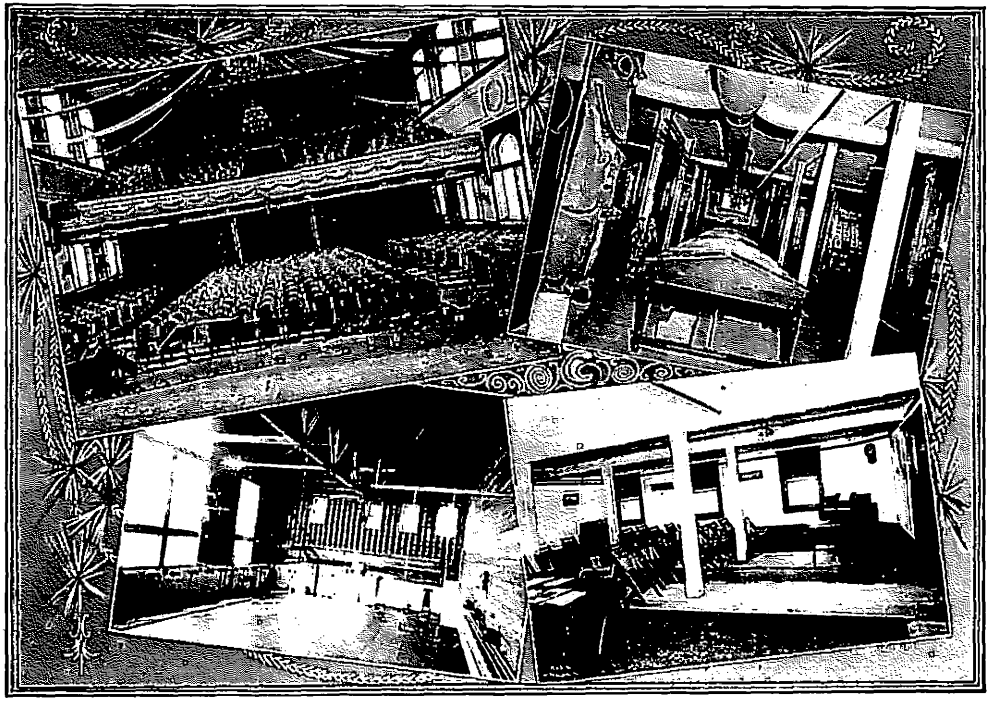
POWER HOUSE AND MACHINE SHOP.
ASSAY SHOPS.

OBSERVATORY.
LAW BUILDING.



GYMNASIUM AND ARMORY.
INTERIOR OF MAIN LIBRARY.

LADIES' HALL.
MEN'S HALL.



DENNY HALL.
INTERIOR OF GYMNASIUM.

PORTION OF MUSEUM.
YOUNG MEN'S CHRISTIAN ASSOCIATION.

CATALOGUE FOR 1901-1902

AND

ANNOUNCEMENTS FOR 1902-1903

OF THE

UNIVERSITY OF WASHINGTON

SEATTLE, WASHINGTON

SEATTLE, WASH.
THE METROPOLITAN PRESS
1902

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GENERAL CALENDAR

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UNIVERSITY CALENDAR FOR 1902-1903.

1902.

Fall Term.

Examinations for Admission..Monday, Sept. 22.
Registration Days.....Monday and Tuesday, Sept.22, 23.
Recitations begin.....Wednesday, Sept. 24.
Thanksgiving Vacation.....Nov. 26-Dec. 1.
Term ends.....12:05 P. M., Saturday, Dec. 20.

1903.

Winter Term.

Term begins.....8:30 A. M., Monday, Jan. 5.
Term ends.....12:05 P. M., Saturday, March 14.

Spring Term.

Term begins.....8:30 A. M., Wednesday, March 18.
Baccalaureate Sermon.....11:00 A. M., Sunday, June 7.
Alumni Day .....Monday, June 8.
Class Day.....10:30 A. M., Tuesday, June 9.
Annual Oratorical Contest....8:00 P. M., Tuesday, June 9.
President's Reception.....Wednesday, June 10.
Commencement.....10:30 A. M., Thursday, June 11.

THE BOARD OF REGENTS.

Hon. ALDEN J. BLETHEN, President.....Seattle
Term Expires, 1908.

Hon. GEORGE H. KING.....Seattle
Term Expires, 1903.

Hon. JAMES Z. MOORE.....Spokane
Term Expires, 1904.

Hon. JAMES E. BELL.....Everett
Term Expires, 1904.

Hon. RICHARD WINSOR.....Seattle
Term Expires, 1905.

Hon. JOHN H. POWELL.....Seattle
Term Expires, 1905.

Hon. WILLIAM E. SCHRICKER .....La Conner
Term Expires, 1908.

WILLIAM J. MEREDITH, A. B., Secretary of the Board.

Standing Committees of the Board of Regents.

Executive.

ALDEN J. BLETHEN, CHAIRMAN.
RICHARD WINSOR. GEORGE H. KING.
JOHN H. POWELL.

Instruction.

JOHN H. POWELL, CHAIRMAN.
GEORGE H. KING. WILLIAM E. SCHRICKER.

Library, Museum, and Apparatus.

RICHARD WINSOR, CHAIRMAN.
JAMES Z. MOORE. JAMES E. BELL.

Buildings and Grounds.

GEORGE H. KING, CHAIRMAN.
JOHN H. POWELL. WILLIAM E. SCHRICKER.

Reports and Publications.

JAMES E. BELL, CHAIRMAN.
JAMES Z. MOORE. JOHN H. POWELL.

THE UNIVERSITY FACULTY.

FRANK PIERREPONT GRAVES, LL. D., *President.*

A. B., Columbia University, 1890; A. M., 1891; Ph. D., Boston University, 1892; Student at Harvard University, 1893-94; Litt. D., Heidelberg University, Ohio, 1897; LL. D., Hanover College, 1897. Instructor in Greek, Drisler School, New York, 1889-90; Assistant in Greek, Columbia University, 1890-91; Assistant Professor of Greek, Tufts College, 1891-93; Professor of Classical Philology, 1893-96; President of the University of Wyoming and Director of the Wyoming Experiment Station, 1896-98; President of the University of Washington, 1898-.

University Heights.

CHARLES FRANCIS REEVES, M. S., Dean of College of Liberal Arts, *Professor of the German Language and Literature.*

B. S., Pennsylvania State College, 1878; M. S., 1881; Student at the University of Chicago, 1897. Professor of Modern Languages and Librarian, Pennsylvania State College, 1879-90; Assistant to the President, in charge of the business office, 1884-90; Professor of Modern Languages, University of Washington, 1894-97; Professor of German since 1897; Acting President, 1897-98; Dean of College of Liberal Arts, 1899-.

University Station.

HENRY LANDES, A. M., *Professor of Geology and Mineralogy.*

A. B., Indiana University, 1892; A. B., Harvard University, 1892; A. M., 1893. Assistant, U. S. Geological Survey, 1891 and 1893; Assistant to State Geologist, New Jersey, 1892-94; Principal of Rockland (Me.) High School, 1894-95; Professor of Geology and Mineralogy, University of Washington, 1895-; State Geologist, 1901-.

University Heights.

EDMOND STEPHEN MEANY, M. L., *Professor of History.*

B. S., University of Washington, 1885; M. S., 1899; M. L., University of Wisconsin, 1901. Member of Washington Legislature, 1891 and 1893; Assistant to Executive Commissioner for Washington, World's Columbian Exposition, 1890-94; Secretary of the Board of Regents, University of Washington, 1894-97; Registrar, and Lecturer on Northwest History and Forestry, 1895-97; Professor of History, 1897-.

University Station.

J. ALLEN SMITH, PH. D., *Professor of Political and Social Science.*

A. B., University of Missouri, 1886; LL. B., 1887; Ph. D., University of Michigan, 1894. Attorney-at-law, Kansas City, 1887-92; Professor of Economics and Sociology, Marietta College, 1895-97; Professor of Political and Social Science, University of Washington, 1897-.

2814 Franklin Street.

ARTHUR RANUM, A. B., *Professor of Mathematics and Astronomy.*

A. B., University of Minnesota, 1892; Graduate Student and Fellow in Mathematics, Cornell University, 1893-96; Fellow in Mathematics, University of Chicago, 1896-97. Professor of Mathematics and Astronomy, University of Washington, 1897-.

University Heights.

ALMON HOMER FULLER, C. E., Dean of College of Engineering, *Professor of Civil Engineering.*

C. E., Lafayette College, 1897; M. C. E., Cornell University, 1898; M. S., Lafayette College, 1900. Fellow in Civil Engineering, Cornell University, 1897-98; Professor of Civil Engineering, University of Washington, since 1898; absent on leave, with American Bridge Company, Philadelphia, 1900-1901; Dean of College of Engineering, 1899-.

University Station.

THOMAS EATON DOUBT, A. M.,[1] *Professor of Physics and Electrical Engineering.*

B. Sc., Nebraska Wesleyan University, 1892; A. M., University of Nebraska, 1896. Assistant in Chemistry, Nebraska Wesleyan University, 1889-92; Instructor in Physics, 1892-94; Fellow in Physics, University of Nebraska, 1894-97; Instructor in Physics, University of Washington, 1897-98; Professor of Physics and Electrical Engineering, 1898-.

University Station.

HOMER REDFIELD FOSTER, M. S., *Professor of Botany.*

Ph. B., University of Michigan, 1897; M. S., 1898. Teacher and Superintendent of Michigan Schools, 1887-93; Principal and Professor of Biology, Benton Harbor College, 1893-94; Superintendent of Schools, Hartford, Michigan, 1894-95; Professor of Botany, University of Washington, 1898-.

University Heights.

FREDERICK WELTON COLEGROVE, PH. D.,[2] *Professor of Philosophy.*

A. B., Colgate University, 1882; A. M., 1885; Student at Hamilton Theological Seminary, 1882-84; D. D., University of Rochester, 1893; Ph. D., Clark University, 1898; Student at Leipzig and Heidelberg Universities, 1899. Principal of Marion Collegiate Institute, New York, 1884-89; Professor of Latin, Colgate University, 1889-92; President of Ottawa University, Kansas, 1892-96; Professor of Philosophy, University of Washington, 1899-.

University Heights.

ARTHUR RAGAN PRIEST, A. M., Secretary, *Professor of Rhetoric and Oratory.*

A. B., De Pauw University, 1891; A. M., 1894. Principal of High School, Seale, Ala., 1891-92; Associate Principal and Professor of English, McFerrin College, 1892-93; Instructor in Rhetoric and Oratory, De Pauw University, 1893-96; Professor, 1896-98; Instructor in Oratory, University of Wisconsin, 1898-99; Professor of Rhetoric and Oratory, University of Washington, 1899-.

University Heights.

1 Term expires, August 1, 1902.
2. Resigned. Vacancy to be filled.

JOHN THOMAS CONDON, LL. M., Dean of School of Law, *Professor of Law.*

Student, University of Washington, 1875-79; LL. B., University of Michigan, 1891; LL. M., Northwestern University, 1892. Assistant, in charge of Evidence, Northwestern University, 1891-92; Member of Seattle Bar since 1892; Professor of Law and Dean of School of Law, University of Washington, 1899-.

Dean's House, Old University Site.

HORACE GREELEY BYERS, PH. D., *Professor of Chemistry.*

A. B. and B. S., Westminster College, 1895; A. M., 1898; Ph. D., Johns Hopkins University, 1899. Professor of Chemistry, Tarkio College, 1895-96; Instructor in Chemistry, Westminster College, 1896-97; Instructor in Chemistry, Maryland University, 1897-99; Professor of Chemistry, University of Washington, 1899-.

University Station.

CHARLES WILCOX VANDER VEER, Director of Gymnasium, *Professor of Physical Culture and Hygiene.*

Student, Union College, New York, 1873-76. Professor of Physical Culture, Union College, 1876-92; Professor of Physical Culture, Case School of Applied Science, 1893-94; Instructor in Physical Culture, Seattle Athletic Club, 1894-95; Professor of Physical Culture and Hygiene, University of Washington, 1895-.

1302 University Street.

CAROLINE HAVEN OBER, *Professor of the Romanic Languages and Literatures.*

Student, Wheaton Seminary, 1882-86; Massachusetts Normal School, Salem, 1888-89. Teacher, Public School, Palisade, Nevada, 1886-87; Instructor in Modern Languages, Bozeman Academy, Montana, 1887-88; Regent and Vice Directress, Government Normal Schools, Argentine Republic, 1889-93; Instructor in Spanish, San Diego High School, California, 1896-97; Professor of Romanic Languages, University of Washington, 1897.

University Station.

THOMAS FRANKLIN KANE, PH. D., *Professor of the Latin Language and Literature.*

A. B., De Pauw University, 1888; A. M., 1891; Ph. D., Johns Hopkins University, 1895. Tutor in Latin, De Pauw University, 1886-88; Professor of Latin, Lewis College, 1888-91; Scholar in Latin, Johns Hopkins University, 1893-94; Fellow in Latin, 1894-95; Professor of Latin, Olivet College, 1895-1900; Professor of Latin Language and Literature, University of Washington, 1900-.

University Heights.

TREVOR CHARLES DIGBY KINCAID, A. M., *Professor of Zoology.*

B. S., University of Washington, 1899; A. M., 1901. Instructor in Biology, University of Washington, 1895-99; Assistant, American Fur Seal Commission, 1897; Acting Professor of Entomology, Oregon Agricultural College, 1897-98; Entomologist, Harriman Alaska Expedition, 1899; Assistant Professor of Biology, University of Washington, 1899-1901; Professor of Zoology, 1901-.

University Station.

FREDERICK MORGAN PADELFORD, PH. D., *Professor of the English Language and Literature.*

A. B., Colby College, 1896; A. M., 1899; Ph. D., Yale University, 1899. Scholar in English, Yale University, 1896-98; Fellow, 1898-99; Professor of English, University of Idaho, 1899-1901; Professor of English Language and Literature, University of Washington, 1901-.

University Heights.

ALBERT HENRY YODER, A. B., *Professor of Pedagogy.*

Graduate, State Normal School, Madison, South Dakota, 1888; A. B., Indiana University, 1893; Scholar in Pedagogy, Clark University, 1893-94; Scholar in Psychology, University of Chicago, and Student in Pediatrics, Northwestern University Medical School, 1895-96. Superintendent of City Schools, Madison, South Dakota, 1888-91; Instructor in Pedagogy, Indiana University, 1892-93; Principal, San Francisco Normal School, 1894-95; President of Vincennes University, 1896-1900; Editor of Journal of Childhood and Adolescence, 1900-; Professor of Pedagogy, University of Washington, 1901-.

University Heights.

Lieutenant ASA TOWNSEND ABBOTT, U. S. A., Commandant of Cadets, *Professor of Military Science and Tactics.*

Private, First Minnesota Infantry, 1861-63; Second Lieutenant, Signal Corps, 1863-65; Twenty-eighth Infantry, U. S. A., 1867-69; Third Cavalry, U. S. A., 1869-72; Graduate, Artillery School, 1872; Retired for Physical Disability Contracted in Line of Duty, 1879; Commandant of Cadets, Shattuck Military Institute, 1880-1901; Professor of Military Science and Tactics, and Commandant of Cadets, University of Washington, 1901-.

University Heights.

MILNOR ROBERTS, A. B., Dean of the School of Mines, *Professor of Mining Engineering and Metallurgy.*

A. B., Stanford University, 1899. Instructor in Mineralogy, Stanford University, 1899-1901; Professor of Mining Engineering and Metallurgy, and Dean of the School of Mines, University of Washington, 1901-.

University Heights.

JOHN PHILO HOYT, LL. B., *Professor of Law.*

LL. B., Ohio State and Union Law College, 1867. Justice, Supreme Court of Washington, 1879-87 and 1889-95; Chief Justice, 1895-97. Professor of Law, University of Washington, 1902-.

1617 Fourth Avenue, West.

ARTHUR SEWALL HAGGETT, PH. D., *Professor of the Greek Language and Literature.*

A. B., Bowdoin College, 1893; A. M., 1894; Ph. D., Johns Hopkins University, 1897; Student, University of Berlin and American School at Athens, 1897-98. Scholar in Greek, Johns Hopkins University, 1895-96; Fellow in Greek, 1896-97; Instructor in Greek and Latin, Worcester Academy, 1898-1901; Assistant Professor of Greek and Latin, University of Washington, 1901-02; Professor of Greek Language and Literature, 1902-.

University Heights.

FREDERICK ALBERT OSBORN, PH. B., *Professor of Physics and Electrical Engineering.*

Ph. B., University of Michigan, 1896; Graduate Student, University of Michigan, 1900-1902. Assistant in Physics, Saginaw High School, 1890-91; Instructor in Physics, Ann Arbor High School, 1893-96; Professor of Physics, Olivet College, 1896-1902; Professor of Physics and Electrical Engineering, University of Washington, 1902-.

University Station.

WILLIAM JOHN MEREDITH, A. B., *Associate Professor of English.*

A. B., University of Washington, 1900. Principal in Kansas and Washington Schools, 1881-1895; Instructor in English, Seattle High School, 1895-96; Superintendent of Schools, King County, 1896-1901; Member of State Board of Education, 1900-1901; Registrar and Associate Professor of English, 1901-.

University Station.

MARTHA LOIS HANSEE, A. M., *Associate Professor of Greek and Latin.*

A. M., Pacific University, 1890; A. B., Indiana University, 1900. Professor of Greek and Latin, University of Washington, 1881-84; Professor of Ancient Languages, and Dean of Women, Willamette University, 1888-95; Instructor in History, Latin, and Greek, University of Washington, 1895-99; Associate Professor of Greek and Latin, 1899-.

Ladies' Hall.

JAMES EDWARD GOULD, PH. B., *Assistant Professor of Mathematics.*

Ph. B., University of Washington, 1896. Student, Summer School, University of California, 1897; Student, Summer Quarter, University of Chicago, 1900, 1901, and 1902. Principal of High School, Port Townsend, 1897-99; Instructor in Physics and Chemistry, Seattle High School, 1899-1901; Assistant Professor of Mathematics, and Principal of the Preparatory School, University of Washington, 1901-.

2206 Second Avenue, North.

THOMAS WARNER LOUGH, A. B., *Assistant Professor of Chemistry and Pharmacy.*

Ph. G., University of Washington, 1896; A. B., 1900; Student in Chicago College of Pharmacy, 1900; Assistant in Chemistry, University of Washington, 1895-99; Instructor, 1899-1901; Assistant Professor, 1901-.

University Heights.

DAVID KELLY, A. M., *Assistant Professor of Physics and Electrical Engineering.*

B. S., University of Washington, 1899; A. M., 1901. Tutor in Physics and Electrical Engineering, 1899-1901; Assistant Professor, 1901-.

University Station.

RUDOLF ERNST HEINE, B. S., *Assistant Professor of Mechanical and Electrical Engineering.*

B. S. in Electrical Engineering, University of Wisconsin, 1898. Engineering Department, Milwaukee Electric Railway and Light Company, 1898-1900; Western Electric Company, Chicago, 1900-1901; Assistant Professor of Mechanical and Electrical Engineering, University of Washington, 1901-.

University Station.

HARRY CANBY COFFMAN, A. B., *Librarian.*

A. B., University of Washington, 1899; Student, School of Library Science, University of Wisconsin, 1899. Assistant Librarian, University of Washington, 1897-99; Librarian, 1899-.

University Station.

Instructors and Other Officers.

WILLIAM CLARKSON HASTINGS, B. S., M. D., *Instructor in Materia Medica and Microscopy.*
221 First Avenue, West.

OTTILIE GERTRUDE BOETZKES, A. M., *Instructor in Modern Languages.* University Station.

HENRY GRANGER KNIGHT, A. B., *Instructor in Chemistry.*
University Heights.

ELIZABETH PEARL MCDONNELL, A. B., *Cataloguer in the Library.* University Station.

CHARLES ERNEST GACHES, B. S.,[1] *Instructor in Civil Engineering.* University Heights.

ANNA HUBERT, A. B., *Instructor in German.*
722 Queen Anne Avenue.

GEORGE BENJAMIN MOREHOUSE, *Assistant in Chemistry.*
2935 First Avenue N. E.

FRANK JOSEPH MCKEOWN, *Assistant in the Library.*
University Heights.

Hon. FRED RICE ROWELL, A. B., *Lecturer on Mining Law.*
511 E. Pike Street.

Hon. CORNELIUS H. HANFORD, *Lecturer on the Law of Admiralty.* 1023 Madison Street.

EDWARD WHITSON, A. B., *Lecturer on Irrigation and Water Rights.* North Yakima.

1 Resigned. Position filled by Jesse A. Jackson and Harry W. Boetzkes.

Hon. GEORGE H. KING, *Lecturer on Admiralty.*
220 Fourteenth Avenue, North.

CHARLES E. SHEPARD, A. B., LL. B., *Lecturer on Law of Patents, Trade Marks, and Copyrights.*
1406 Bellevue Avenue.

GEORGE E. WRIGHT, A. B., LL. B., *Lecturer on the Law of Real Property.* Thirty-eighth Avenue, North.

JOHN ARTHUR, *Lecturer on Public Land Law.*
1021 Seneca Street.

WILLIAM JOHN MEREDITH, A. B., *Registrar.*
University Station.

WILLIAM MCDEVITT, A. B., LL. M., *Assistant to the Registrar.* University Heights.

Standing Committees of the Faculty.

Admission—Professors Foster, Kane, Byers, and Fuller.

Accredited Schools—Professors Yoder, Osborn, Gould, and Reeves.

Advisers—College of Liberal Arts: Freshmen, Professor Priest; Sophomores, Professor Padelford; Unclassified, Professor Landes; Juniors, Seniors, and Graduates, the respective Major Professors. College of Engineering: Civil Engineers, Professor Fuller; Mechanical, Professor Heine; Electrical, Professor Osborn. School of Mines: Profes-

sor Roberts. School of Pharmacy: Professor Byers. School of Law: Professor Condon.

Programme—Professors Reeves, Smith, Byers, and Heine.

Assembly and Public Exercises—Professors Priest, Osborn, Meany, and Padelford.

Student Assistance—Professors Meany, Gould, and Meredith.

Alumni Appointments—Professors Yoder, Meany, Osborn, and Heine.

Honors and Advanced Degrees—Professors Kane, Smith, Fuller, Byers, and Padelford.

Discipline—Professors Smith, Ranum, Osborn, and Hansee.

Petitions—Professors Smith, Byers, and Ober.

Holidays—Professors Ranum, Meredith, and Roberts.

Athletics (*to act with the Physical Director*)—Professors Landes, Meany, and Roberts.

Military Exercises (*to act with the Commandant*)—Professors Padelford, Gould, and Smith.

Dormitories—Professors Fuller and Kane.

Library (*to act with the Librarian*)—Professors Padelford, Byers, and Haggett.

Museum—Professors Landes, Meany, and Kincaid.

Catalogue—Professors Priest, Meany, Yoder, and Haggett.

GENERAL INFORMATION.

HISTORICAL SKETCH.

When the first legislature of Washington Territory assembled in 1854, Isaac Ingalls Stevens, the governor, spoke most forcibly in his message in favor of a public school system and closed his remarks on this point with the following words: "I will also recommend that Congress be memorialized to appropriate land for a university." The advice of the governor was heeded. Congress was promptly memorialized for the grant of two townships of land, the amount previously given to Oregon for the same purpose. Within the short space of four months Congress complied with this request.

The government census showed that there were in the new territory at this time 3,965 white persons. These people were scattered from the Columbia river to the British boundary, and from the Pacific ocean to the Rocky mountains. The pioneers were not daunted by the fewness of their numbers or the leagues of separation.

On January 29, 1855, just six months from the date of the University land grant, the legislature enacted that the Territorial University of Washington should comprise two equal institutions, one at Seattle and the other on Boisfort Plains in Lewis County. The granted lands were to be divided equally between the two institutions. The county commissioners who were directed to select the

granted lands failed in their duty, and in 1858 the legislature united the two universities. Cowlitz Farm Prairie, in Lewis County, was chosen as the new site, and another enactment was passed for the selection of all the granted lands.

This shifting and fruitless policy in locating the Territorial University led the pioneers of the Puget Sound region to secure an enactment incorporating another institution to be called the "Puget Sound University." The possibility of thus duplicating educational institutions resulted in bringing matters to a definite conclusion, and in January, 1861, the legislature relocated the Territorial University at Seattle. A Board of University Commissioners, consisting of Rev. Daniel Bagley, John Webster, and Edmund Carr, all of Seattle, was immediately appointed to select the granted lands, to sell them for not less than $1.50 an acre, and to build the University within one year.

This board met on Washington's birthday, 1861, and organized for work. The land was cleared, the corner-stone of the main building was laid on May 21, 1861, and the building completed within the specified year. In the autumn of 1862 the other buildings were constructed, and during the winter the University of Washington was opened.

The legislature had made one other condition in relocating the University in Seattle and that was that a suitable site of at least ten acres be donated by the people of Seattle. The site was selected and the major portion of it donated by Hon. Arthur A. Denny from his farm. The other portion of the site was given by Charles C. Terry and Edward Lander. A few large maple trees were left on the

grounds, but all the other trees were cleared off. The ground was plowed and harrowed, and the Rev. Daniel Bagley sowed the whole tract with grass seed he had brought from Oregon the year before.

The records of the early years of the University are very meager, but it is certain that the institution had a severe struggle. A bare list of the men who filled the position of president shows that changes were numerous, since no one of the first six presidents held office for more than two years.

For several years the work of the University did not rank much above that of an academy. The first class to be graduated was during the second administration of Dr. George F. Whitworth in 1876. This class consisted of one young lady, Miss Clara McCarty, now Mrs. Wilt of Tacoma, who was graduated with the degree of bachelor of science. The honor of having first organized the University on real college lines belongs to the seventh president, Dr. A. J. Anderson. Under his administration a small class was graduated in 1880, and from that date classes have been graduated annually with all the essentials of a college training.

The total number of graduates up to June, 1902, was 387. Records of the students in the earlier years were not preserved, but it is estimated that the number of those who have attended the University from its organization to the present time is over 5,000.

The building erected in 1861 was the finest educational structure at the time in the Pacific Northwest. It was the only building belonging to the institution except the president's cottage and two rather inferior dormitories. All were frame buildings. The money for their construction

was obtained from the sale of the University lands. The territorial government paid out no money for the University's maintenance until 1879. Then the amount given was very small and was to apply on tuition fees of "free" scholars to be appointed by the governor, judges, and members of the legislature. This condition prevailed in all the appropriation bills for the University throughout the territorial period. During this time, from 1862 to 1889, the total sum appropriated by the territory for the University was only $34,350.

During the later years of the territorial period and the first years of statehood, the old quarters of the University became very crowded. In 1893 the state legislature provided a beautiful new site and sufficient money to build structures of a permanent character and adequate to the needs of a growing institution. On September 4, 1895, the institution moved into the new buildings and since then the progress of the University has kept pace with the rapid development of the commonwealth.

Since the growth of the territory for years was slow and at times scarcely perceptible, it is not strange that the institution did not always make uniform progress. At the present time, however, the University of Washington is growing rapidly and has taken its place as the continuation of the public school system, the capstone in the state's great educational edifice. As in the rest of the public school system, from the kindergarten and primary school upward, instruction in the University of Washington is free to all, without regard to race, sex, creed, or social station.

SEAT OF THE UNIVERSITY.

Every one seeking information about the University will also desire to know something of the city in which it has its home.

The city of Seattle is the metropolis of the state of Washington, and has a population of over 100,000. It is located on Elliott Bay, an arm of Puget Sound, and extends eastward to Lake Washington, one of the largest bodies of fresh water in the state.

The Cascade mountain range to the east, the Olympic mountains to the west, majestic Mount Rainier to the south, and Mount Baker to the north, with the lakes, rivers, wonderful forests, and the deep blue waters of the ocean, combine to furnish an environment of healthfulness and inspiration. This natural beauty is beyond all computation in worth when considered as the appropriate home of a great institution of learning.

It has been the custom to refer to the climate of Puget Sound as mild but wet, but from actual statistics the total precipitation for the past ten years was only a few inches above that of the city of Chicago. The highest temperature reached in 1901 was 87 degrees, and the lowest was 28 degrees. A sure indication of the healthfulness of the Puget Sound climate is a low death rate.

Numerous lines of railroad, steamships, and sailing vessels furnish abundant facilities for transportation to and from the city, while within the city there are over 100 miles of electric and cable street car lines. There are six public parks in the city and four private parks open to the public. The Magnolia Bluff Army Post, covering a tract of 650

acres of upland and 200 acres of tide land, also affords a beautiful public park.

Three branches of the superior court and the United States district and circuit courts in Seattle, and the state supreme court within easy reach at Olympia, offer valuable advantages for the School of Law. Three general and two special hospitals offer similar aids when it is thought advisable to establish the School of Medicine.

Students in the departments of geology, mineralogy, and mining engineering find especial advantage in and about Seattle. There are numerous coal mines and stone quarries near the city, and gold and silver mines easy of access in the Cascade mountains. One smelter in Everett, and another in Tacoma may be easily visited, and the United States government has established an assay office in Seattle, which in volume of business stands next to New York and Denver.

Practical electrical engineering is amply illustrated by the extensive power and light plants in the city, and at the University, and the great system now completed at Snoqualmie Falls. The large iron works, saw mills, clay works, and numerous other manufacturing enterprises furnish valuable object lessons to students of mechanical engineering. The United States government dry-dock and navy yard at Port Orchard, and the military post at Magnolia Bluff are both useful from an educational point of view.

The city maintains a fine public library, the books of which are available for students of the University. The management of the public library seeks every means possible to supplement the library of the University. The city library is rapidly recovering from a destructive fire. Andrew

Carnegie has given the city $200,000 for a new library building on condition that the library is generously maintained. In a short time Seattle will own one of the first libraries on the Pacific coast.

There are seventy churches in the city. All the leading denominations are represented by several congregations. Besides the associations at the University, there are flourishing organizations of the Y. M. C. A. and the Y. W. C. A. in Seattle.

During the year 1901, twenty-three buildings were occupied by the public schools, two hundred and sixty-nine teachers were employed and 12,335 pupils enrolled. A magnificent high school building costing over $200,000, will be occupied in the fall of 1902.

CENTER OF A PROHIBITION DISTRICT.

The state legislature in 1895 enacted a strict law prohibiting the sale of all intoxicating liquors within a radius of two miles of the new University grounds. This insures a college neighborhood entirely free from the evils of the saloon.

GOVERNMENT.

Under the constitution and the laws of the state of Washington, the government of the University is vested in a Board of Regents, consisting of seven members appointed by the governor of the state by and with the advice and consent of the senate. Each regent is appointed for the term of six years. The code of public instruction also

provides that the immediate government of the institution shall be in the hands of the Faculty, consisting of the president and professors, under such rules as the Board of Regents may provide.

ENDOWMENT AND SUPPORT.

The University derives its support entirely from the state. There is no income from tuition fees, as instruction in all departments of the University, except the School of Law, is free, and the lands granted the institution as an endowment yield no revenue as yet. The income from these lands will some day greatly help to support the University. The two townships of land granted by Congress in 1854 were nearly all selected and sold in 1860 and 1861 to build and establish the Territorial University. There remains of this old grant some 3,000 acres, part of which is not yet selected. Besides this land, the University owns 320 acres near the city of Tacoma, acquired by purchase about 1862, and the old site of ten acres in the central part of the city of Seattle. Both of these last named parcels of land are sure to become good revenue producing properties. In addition to the above mentioned property the University was further endowed by the state on March 14, 1893, by the segregation of certain granted lands. Section 9 of the law approved on that day provides—

"That 100,000 acres of the lands granted by section 17 of the enabling act, approved February 22, 1889, for state charitable, educational, penal, and reformatory institutions are hereby assigned for the support of the University of Washington."

Prior to the session of the state legislature in 1897 it

was practically impossible to expect any gratuities or bequests, as such gifts would immediately go into the treasury of the state, and become unavailable except upon appropriation by the legislature. But in the session of 1897 the code of public instruction was enacted, and section 186, chapter 1, title IV, of that code made the following provision for University bequests:

"The Board of Regents is authorized to receive such bequests or gratuities as may be granted to said University, and to invest or expend the same according to the terms of said bequests or gratuities. The said board shall adopt proper rules to govern and protect the receipt and expenditure of the proceeds of all fees, bequests, or gratuities, and shall make full report of the same in the customary biennial report to the Governor, or more frequently if required by law."

It is hoped that this provision will result before long in the erection of a number of memorial buildings and the establishment of memorial scholarships and professorships.

BUILDINGS.

Before the erection of any buildings on the new grounds the Board of Regents adopted a wise policy by deciding that each structure should be made of materials found in the state of Washington. In this way, besides serving their various purposes, the buildings furnish magnificent exhibits of the wealth of Washington in first class building materials.

The Administration Building is constructed of a light colored sandstone from Pierce county, and cream colored pressed brick from Spokane county, with terra cotta trim-

mings from King county. The interior finish is of Puget Sound fir and larch. It is a commodious structure in the style of the French renaissance. The main portion of the building is 244 feet in length by 70 feet in width. It is three stories high with a finished basement. In this main portion are the recitation rooms, lecture halls, administrative offices, vaults, and society rooms. The basement is devoted to laboratories. These are all well lighted and equipped for work. Extending to the rear, and separated by light wells, is a wing 91 feet in length by 54 feet in width. In this wing is Denny Hall, the general assembly room, above which is the library. The building is heated and ventilated by the latest improved facilities, and is lighted by gas and electricity. The administration building occupies the most commanding situation on the grounds.

The Science Hall is located on the oval about 400 feet south of the administration building. It is constructed of red pressed brick with trimmings of sandstone. It is three stories in height, with seven large rooms on each floor, and some additional space in the basement and attic.

In form the building is T-shaped, the front having very large circular ends, giving ideal locations for laboratories and lecture rooms. The first floor contains the lecture rooms and laboratories for the departments of geology and mining; the second floor, the laboratories for zoology, and the lecture room and drawing rooms for civil engineering; and the third floor, the lecture room for zoology and botany, the botanical laboratories and the lecture room and drawing rooms for mechanical engineering.

The wing in the rear is 50 by 60 feet in size, and is sep-

arated from the front by light wells. It contains the State Museum, and is arranged in a general way so that the geological collections occupy the first floor, the zoological collections the second floor, and the botanical collections the third floor.

The New Power House and Machine Shop, situated on the oval southeast of the science hall has been completed and will be fully equipped during the coming year. The building is of brick, two stories in height, 50 by 80 feet in size, and a wing 50 by 60 feet for the boiler room.

The first floor of the building is divided into two rooms. One of these will contain all of the steam and electrical machinery for the lighting and power system of the University. This will consist of two high-speed and one Corliss engine, one 75 kilowatt alternator and one 75 kilowatt 500 volt generator. One of the high speed engines will drive a countershaft in the other room, which will be fitted up with testing appliances for all of the engineering departments. The metal working machinery will also be placed in this room.

The boiler room is sufficiently large and will contain boilers and pumps capable of furnishing all of the buildings with steam, water, and power.

The large room on the second floor will be provided with work benches, lathes, and the necessary machinery for woodworking. A large office and an ample number of lockers are also provided for. All of the University buildings are connected with the power house by a large concrete subway, in which all steam, water, and gas pipes, and electric wires are placed.

The Observatory, though small, is a beautiful building.

It is constructed wholly of sandstone, and occupies the highest point of the grounds northwest from the administration building. The internal arrangement and equipment of the observatory are treated elsewhere.

The Assay Shop is situated to the north of the administration building, and between it and the observatory. It is a frame structure, and although it is not intended as a permanent building, it is well adapted to the present needs. It consists of a furnace room, two balance rooms, a supply room, and a laboratory for wet work.

The Gymnasium and Drill Hall is a frame building constructed of Puget Sound fir. The whole building is 165 feet long and 120 feet wide. The drill hall portion contains probably the largest floor space in the state. It is 80 by 120 feet, and the floor is made of selected fir. This provides an excellent place for the drill of the University cadets during inclement weather and for all indoor athletic games and meets. On either side of this hall are ample rooms for the use of the companies of cadets and their officers. The gymnasium portion of the building is 45 by 80 feet. Here are found apparatus and equipments of the latest designs. On one side are the dressing rooms and baths for the women, and on the other dressing rooms and baths for the men, and the office of the professor of physical culture and hygiene.

The Old Power House is a brick structure 42 by 80 feet on the shore of Lake Washington, and close to the tracks of the Seattle and International Railway Company. This situation provides an adequate supply of water and fuel. There is installed here a new two phase electric generator for supplying light to the different buildings. The current

is generated at 1100 volts, and it may be transformed for light, be used for power, or for experimental purposes in the electrical engineering laboratory. With this and the 500 volt direct current that is generated at the power house, the engineering students have available electric currents for numerous practical purposes. Besides these dynamos there are two engines, two pumps, and three boilers installed in the power house.

Two Dormitories, one for women and the other for men, were provided for at the legislative session of 1899. There is a dining room in the women's dormitory for the use of men and women, and a parlor and reception room in each dormitory. The women's dormitory will accommodate at least fifty students, and the men's sixty. Both buildings command a beautiful view of Lake Washington and the distant Cascade range of mountains.

The Law Building is situated on the old site of the University near the business center of the city. It was formerly the administration building of the University, and was erected in 1862. It is a commodious building and conveniently located for law students.

GROUNDS AND ARBORETUM.

The new grounds are ample enough to satisfy every need of the University. There are 355 acres, all within the city limits of Seattle. The site lies between Lakes Union and Washington. It has a shore line of over one mile on Lake Washington and about a quarter of a mile on Lake Union.

To the southern, or Lake Union side, the land slopes gently from the highest point in the northwestern corner,

which is about 225 feet above tide level. Toward the eastern, or Lake Washington side, the land is level for more than half its width, when it breaks off in a series of benches, terraces, and ravines, capable of the most beautiful landscape effects.

The Board of Regents has adopted a plan that will not only give the best arrangement for new buildings, but will largely determine all future improvement of the grounds. This plan is a modification of the usual college quadrangle. In this case it will be an ellipse, whose major axis is 1,200 feet, and whose minor axis is 650 feet long.

The administration building faces the center of the ellipse. All other buildings will be arranged around the elliptical avenue, and the interior of the ellipse will be beautified and kept open as the campus proper. Into the elliptical avenue will converge all other avenues, a topographical survey of the grounds having shown that this is the most natural treatment possible for the site. Besides furnishing ample room for an excellent arrangement of all necessary buildings for the University, there is an abundance of room for all sorts of athletic grounds.

One of the main reasons urged for the dedication of this land to University purposes, was that in addition to all other needs of the institution, there could be established here a scientific arboretum for the cultivation, care, and study of all kinds of trees and plants that will live in this climate. There are now on the grounds large groves of the original forest trees, and many of them are now thriving.

The management of the Seattle city parks, realizing that a beautiful University campus means another fine park

for the city, has done its full share towards beautifying the grounds. On Arbor Day, 1898, the Park Department presented the University with fifty assorted oaks and fifty honey locusts. During 1899 the Park Department presented to the University 2200 fine trees, embracing about thirty species new to the grounds. These were all carefully planted in groves at suitable places on the grounds.

A superintendent of grounds was employed last year and a small appropriation set aside for improvement. In addition to work around the administration building and armory, a nursery is being established. A donation of 1000 perennials by the Department of Parks and the collection of 500 more from other sources mark the beginning of this work. These represent 42 natural orders and 179 species. Contributions of seed from Blanche Trask of California; the Department of Agriculture, Ottawa, Canada; W. A. Kellerman, Columbus, Ohio; and C. S. Mann, Mapleglen, Pennsylvania, have been received.

By exchanging native seed and plants with eastern collectors, many rare and desirable plants are being secured.

LIBRARY.

The library of the University of Washington contains 14,479 bound volumes and 12,200 pamphlets. Besides this, there are now 352 bound volumes in the Frederic James Grant Memorial Library of American History and about 1,000 volumes in the library of the School of Law. Formerly the growth of the library depended on gifts and consisted mainly of United States reports. During the last seven years, however, the new books have been very

largely the best selected books of reference. Every department is strengthened each year by the addition of some of the most valuable books on its subject. The leading papers and magazines, foreign and American, in addition to about thirty periodicals from various parts of the state, are to be found in the library and reading room. The University library is a depository for United States government publications. The legislature at its session of 1901 enacted a law providing that bound sets of all the public documents of the state should be deposited in the University library. The library possesses a card catalogue, and is arranged according to the Dewey decimal system. The main library occupies a room 91 feet long and 54 feet wide, and the students are allowed free access to the shelves.

Students of the University also have all the privileges of the Seattle Public Library, which is recovering from the recent destructive fire and will soon be housed in the new building presented to the city by Mr. Carnegie.

The University has begun active work in collecting books, pamphlets, newspapers, manuscripts, and relics relating to early northwestern history. Already a number of rare documents has been secured and friends about the northwest are solicited to co-operate.

THE AUDITORIUM.

The assembly hall of the University embraces what would have been the first and second floors of the wing of the administration building. A large stage and a seating capacity of 736 make this hall serviceable not only for the assembling of the University students, but also for the various enter-

tainments that form one of the attractive features of University life. The Board of Regents has named this assembly room Denny Hall, in honor of Hon. Arthur A. Denny, who gave most of the first campus to the University when it was located at Seattle in 1861.

MUSEUM.

The University Museum is destined to become one of the most important adjuncts of the institution. The legislature in 1899 made it the State Museum and provided that state, county, and other officers, while in the discharge of their duties, should save all matters of a scientific or historical value, and deposit them in this museum.

The museum is located in a specially designed wing of the recently constructed science hall, where it occupies three floors, each 50 by 60 feet. The lower floor is devoted to the collections illustrating geology, the second floor contains the zoological and ethnological collections, and the third floor the herbarium, botanical exhibits, and miscellaneous material. The specimens are stored for the most part in upright and wall cases of which 442 running feet have been provided. In addition to these, several large table cases serve to display the more important mineralogical collections. The specimens thus far accumulated represent a good beginning along the lines of geology, mineralogy, zoology, botany, and ethnology, and are of great value in illustrating the work of the departments concerned.

During the last few years many important additions have been made to the museum. The John R. Baker collection of minerals, consisting of over a thousand speci-

mens of rare and beautiful crystals and other representatives of the mineral kingdom, has been deposited indefinitely and is exhibited in three large table cases in the geological section of the museum.

Among the more important biological contributions may be mentioned a collection of over a hundred mounted fishes presented by Mr. Edwin C. Starks. Through the efforts of the same gentleman a series of beautiful corals was secured from the Field Columbian Museum. Mr. P. B. Randolph has deposited in the museum his extensive collection of land, fresh-water, and marine shells, comprising about ten thousand specimens from all parts of the world. This collection is especially rich in local forms, and includes a fairly complete series of the mollusca indigenous to the Puget Sound region.

The palaeontological section received a marked addition in a series of palaeozoic fossils presented by Dr. S. Winfield Hartt, of Port Angeles. The museum is also indebted to the same gentleman for an important collection of archaeological specimens from the southwestern United States. From the Harriman Alaska Expedition the ethnological section obtained a totem pole derived from Southeastern Alaska.

It is the aim to make the museum especially rich in specimens illustrating the natural history of the state. A considerable series of birds and other vertebrates has already been secured, while each year the collection of invertebrates is enlarged by the addition of named series in these groups. It is hoped that in the near future the museum may possess carefully determined representatives of nearly all the groups of marine and terrestrial animals of the region.

LABORATORIES.

Well appointed laboratories are as essential to the modern college and university as books and lectures. The University of Washington has the following laboratories fully equipped for work in the various departments:

Chemical.

The four laboratories devoted to chemistry alone are exceptionally well lighted by large outside windows admitting the direct sunlight, as well as by gas and electricity. By a system of circulating warm air, the rooms are largely free from fumes or disagreeable odors, and a uniform temperature maintained. Each laboratory is also supplied with a large "hood," which is lined with glazed tiling and supplied with gas, water, and waste pipes. All the desks have heavy walnut tops, and each is supplied with drawers, shelves, gas, water, a stationary test tube rack, and a full set of reagents for qualitative analysis, as well as completely new and modern glassware and apparatus. A large stock room is well supplied with a complete assortment of glassware, apparatus, and chemicals. This room is in charge of an assistant, and at certain hours during the day students may supply themselves with apparatus and chemicals as needed for individual work.

Laboratory F accommodates twenty-eight students, and is devoted to a beginners' experimental course in inorganic chemistry leading up to qualitative analysis. Adjoining is a balance-room, where the finer balances and more delicate apparatus for advanced work are kept; also an acid room, where crude acids and chemicals in bulk are stored. In

room F is also a large stationary copper still for the preparation of distilled water.

Laboratory D, directly across the hall, accommodates twenty-one students, and is devoted to qualitative analysis.

Laboratory E is at present used for quantitative and volumetric analysis, organic preparations, and organic analysis. This laboratory, being in the form of an amphitheater, is exceptionally well lighted and is an ideal room for the finer organic work. The desks, of which there are twenty-five, are very large and particularly adapted to research work.

All three of these laboratories are supplied with balances for rough weighing, as well as finer ones for quantitative work.

Laboratory H is the private laboratory of the professor of chemistry.

Physical and Electrical.

The laboratories set apart for the use of the department consist of:—(1) a general laboratory 30 by 70 feet which is provided with 120 feet of wall tables and five brick piers with marble caps, apparatus, cases, sinks, gas taps, and electric connections; (2) a work shop 25 by 30 feet; and (3) a photometer room 7 by 28 feet. The large room hitherto used as a zoological laboratory, will also be employed hereafter as a physical laboratory.

The laboratories are supplied with the most modern apparatus from American and European makers. Among the important pieces of apparatus may be mentioned:—(1) an Atwood's machine, Bertram's apparatus, four fine balances with suitable sets of weights, a centrifugal ma-

chine with numerous attachments, a Bianchi's air pump with accessories, a seconds mercury compensated pendulum clock with electric connections to Morse sounder and chronograph, two standard barometers, a cathetometer, a mercury air pump, and a Geneva Society straight-line dividing engine with microscopes so that it may be used as a comparator; (2) a Helmholtz double siren, two large electrically vibrated tuning forks with mirrors for producing Lissajous' curves, a set of organ pipes, a set of tuning forks, revolving mirror, and burners for studying sound by means of manometric flames; (3) Melloni's apparatus complete with thermopile, a Le Chatelier electric pyrometer, some standard thermometers, Hoffman's vapor density apparatus complete, Victor Myers' vapor density apparatus, apparatus for the determination of the expansion of metals, Berkman's apparatus, Waterman calorimeter; (4) a spectrogoniometer, a polarimeter, a refractometer, a direct vision spectroscope with attachments, a Fresnel's optical bench with accessories for studying interference, diffraction, etc., a Lummer-Brodhun photometer with standard Amylacetate lamp, two spectrometers, a fine compound microscope with eyepiece and stage micrometers, a projection lantern with microscope, polariscope, and vertical attachment complete, reading telescopes, curved mirrors, Nuremburg apparatus, quartz lenses and prism, a Rowland concave grating; (5) Kelvin composite electric balance, Kelvin electrostatic voltmeter, two 10,000 ohm standard resistance boxes, four Wheatstone bridges, a Kohlrausch bridge, one postoffice box pattern, a Queen Acme testing set, two Thomson high resistance galvanometers, Hartman and Brau's apparatus for measuring electrolytic resistance, a Kohlrausch variometer, a stand-

ard microfarad condenser, a Thomson-Mascart electrometer, six fine D'Arsonval galvanometers, absolute tangent galvanometer, a fine set of Crookes' tubes, a Wimshurst influence machine, two induction coils, some Geissler, Pluecker, and X Ray tubes, a storage battery of 27 cells with a normal discharge rate of 15 amperes, five ammeters, five voltmeters, standard Carhart-Clark cell, an absolute condenser, a Westinghouse motor and generator. In addition to these, there are generators at the power house with ammeters and voltmeters and two General Electric Company motors in the fan rooms.

The work shop contains an iron lathe, a wood lathe, a scroll saw with wood-turning attachments, a tool grinder, a crystal cutting and polishing machine, a forge, two work benches with iron and wood working tools. Students are encouraged to construct accessory apparatus. The dark room is supplied with water, gas, and electricity, and is fitted with a large slate sink so that it is excellent for photographic work.

The new equipment at the power house enables experiments to be made upon direct electrical currents up to 500 volts, and upon alternating currents, both single and two-phase, up to 2,000 volts, and by means of transformers the tension may be considerably increased.

The general laboratory is supplied with elevating tables and stands, and apparatus for measuring elasticity, viscosity, friction, and moments of inertia.

The general laboratory is supplied with a number of standard reference works, among which may be mentioned Wenkelmann's Handbuch, Viole's Cours de Physique, Wullner's Experimental Physik, Grey's Absolute Measure-

ments in Electricity and Magnetism. A number of the more prominent periodicals in physics are constantly on file, such as Philosophical Magazine, Physical Review, Astrophysical Journal, Wiedemann's Annalen und Beiblætter, Journal de Physique, Nature, Science, London Electrician, and Electrical World and Engineer, American Journal of Science, Street Railway Review, etc.

Botanical.

The botanical laboratories are situated on the third floor of the new science hall.

The general laboratory is a room 41 feet by 42 feet with a semi-circular end; it has large windows and a sky-light, thus providing excellent light for microscopic work. About forty students can be accommodated in this laboratory at one time.

In the center of the laboratory are situated two lead lined aquaria with water supply and fixtures for the propagation and study of living forms.

The laboratory is also at present equipped with nineteen compound microscopes with one-sixth and two-thirds objectives and twelve dissecting microscopes with double lenses. Several microscopes are provided with the Abbe condenser, the Abbe camera lucida, 1-12 oil immersion lenses, polarizing apparatus, and micrometer eye-pieces and scales. Naples water bath, Minot microtomes, stains, reagents, embedding material, and the glassware necessary for the study of microscopy, are provided for individual use.

The histological and physiological laboratory is 20 feet by 24 feet with accommodation for about fifteen students at one time. This laboratory is supplied with microscopes, microtomes, water bath, and other apparatus for histological work; also for physiological work, there is, adjoining this laboratory, a dark room 10 feet by 12 feet supplied with water, gas, lights, etc., for experimental work.

A private laboratory for investigation is supplied with apparatus for individual work, including one of the best Zeiss microscopes, fitted with mechanical stage, apochromatic objectives, 16mm, 8mm, 4mm, and 2mm, and compensating eye-pieces, 2, 4, 8, and 12, and with camera, polarizing apparatus, and other accessories.

A dark room 9 feet by 12 feet is provided for work in microphotography and lantern-slide making. Instruction in this line of work is given to students who are prepared to take it.

A culture room 16 feet by 16 feet on the fourth floor is supplied with aquaria and other apparatus for culture work in physiological botany and other work with living plant material.

The botanical lecture room is situated on the second floor; it will seat about two hundred. The room is supplied with one of the best Colt & Company arc lights for lantern slides. The floor in this room rises by steps from front to back so that a fine view of demonstrations may be had from any seat in the room.

The herbarium at present consists of specimens representing about three thousand species with forms peculiar to the Pacific Coast, in addition to others obtained by ex-

change from the east. It is constantly being increased by specimens from the local flora and elsewhere. A small collection has been recently added from the Michigan flora.

New books and pamphlets on botany are being added to the library as fast as possible, together with periodicals and current biological literature. Several English and two German journals now come regularly to the library.

The high schools of the state are invited to communicate with the department relative to biological material, identification of specimens, and the preparation of gross and microscopic structures for class demonstration.

A collection of text-books and supplementary material for primary and secondary schools has been placed in the general laboratory during the past year. Many of the best text-books in botany, physiology, zoology, and nature work for the grades have been added to this collection by the publishers.

It is the purpose of the department to keep such a library up to date, including the very best publications in botany, physiology, zoology, and nature work. Teachers generally are invited to visit the laboratory and inspect these books freely.

Zoological.

The department of zoology occupies the northern half of the second floor in the recently constructed science hall, and includes three laboratories.

The general zoological laboratory is semi-circular in form and is specially designed to provide an abundance of light for microscopic work. Eleven tables are so arranged as to accommodate forty-four students at a sit-

ting. The center of the room is occupied by a large lead-lined aquarium arranged to contain the living animals required for study. The laboratory is at present provided with ten dissecting microscopes and eighteen compound microscopes, each equipped with high-grade objectives of the necessary powers. For advanced work more powerful lenses are provided, together with additional eye-pieces, substages, condensers, and cameras. For the study of histology and embryology the equipment includes an incubator, paraffine bath, a Minot microtome, and all necessary reagents, stains, and apparatus. A convenient dark room is provided for micro-photography and other lines of photographic work.

The zoological laboratory is richly supplied with material both for dissection and demonstration. A great variety of marine specimens has been procured through the collection and preservation of the animal life found in Puget Sound and the waters of Alaska and other parts of the Pacific Coast. The extensive lakes adjoining the campus furnish an unlimited supply of fresh-water organisms.

The physiological laboratory adjoins the general zoological laboratory and will accommodate a considerable number of students, providing facilities for the experimental investigation of this phase of biology.

The entomological laboratory is a small room designed to contain the extensive collection of insects, which now comprises many thousands of specimens derived mostly from the Pacific Coast. Special facilities are offered for the study of the classification and biology of the insect fauna of the state.

An important feature of the work in zoology has been the preparation of collections of typical specimens for the

use of the high schools throughout the state. Assistance in the determination of specimens is also offered to teachers and others interested in the natural history of the region.

Geological.

The geological laboratories are three in number and occupy the rooms on the first floor of science hall, at the right of the main hallway. The largest room, 38 by 45 feet in size, has been especially designed for mineralogy, but it is used as a laboratory for general geology as well. It is supplied with seven tables, made with tile tops and provided with gas fixtures, which accommodate fifty-six students at one time. For laboratory work in general geology there are working collections of minerals, rocks, and fossils, and for the work in mineralogy there are several cabinets filled with collections of minerals for descriptive and determinative work, collections of natural crystals and wood models, blowpipe sets, etc.

The petrographical laboratory, 20 by 22 feet in size, adjoins the one just described. For work in petrography there is provided a lathe fitted with a diamond saw and grinding plate, run by an electric motor, and a Bausch and Lomb petrographical microscope. The room is supplied with two tile-topped tables similar in pattern to those of the mineralogical laboratory. The working collections include a large variety of rock specimens, and a set of thin rock sections for use with the microscope. Leading from this laboratory is a large dark room well arranged for photographic work.

The laboratory for physical geography, 22 by 23 feet in size, lies across the hall from the one last described. It is

provided with models, maps, diagrams, charts, etc., for practical work in advanced physical geography or physiography. At the present time this room also contains the library and the collections of the State Geological Survey.

Equipment for Civil Engineering.

The instrumental equipment for surveying is complete for all plane and topographic work. It consists of one Heller & Brightly complete engineer's transit, with stadia; one Gurley light mountain transit with solar attachment and Jones' patent latitude arc; one Gurley railroad compass; one 20-inch Gurley wye level; one Buff & Berger inverting dumpey level; one Gurley plane table with alidade containing stadia wires; sextant; hand levels; chains; tapes; level and stadia rods; transit poles and other minor but necessary articles.

The campus, large and as yet practically undeveloped, offers unrivaled facilities for all kinds of field work. Much engineering work will be required on the grounds in the subsequent development. The greater part of this can be done by the students in their regular class work. Thus while rendering valuable services to the University, they will have an opportunity for grappling with practical problems seldom offered the undergraduate. The work of each succeeding class will, according to some definite plan, continue that already done, thus in time forming a complete system which will cover the entire grounds.

The drawing rooms are large and well lighted. They contain first-class drawing desks, lock drawers, stools, cab-

inet, and models. Drawing boards are furnished to all students.

The hydraulic laboratory is equipped for making complete and thorough tests of small water motors, meters, and nozzles.

The blue print room is commodious and well equipped.

Observatory.

The University observatory consists of a dome for the scope of six inch clear aperture, a Bond sidereal chronometer, and a sextant. The equatorial is furnished with a a library and computing room; a transit room; a cloak room; a closet for photography, etc.

The present equipment consists of an equatorial telescope of six inch clear aperture, a Bond sidereal chronometer, and a sextant. The equatorial is furnished with a driving clock, a solar eye-piece, a filar position micrometer, and a set of positive and negative eye-pieces. The optical parts were made by Brashear, and the mountings by Warner & Swasey.

STUDENT ASSOCIATIONS.

The Associated Students of the University of Washington is an organization of the entire student body. It decides all questions arising among the students and relating to them, and controls all matters of general interest to the student community. It elects all managers of athletics, musical clubs, the book-store, debating, and oratory. The

treasurer has charge of all money received as association fees or admission to games and contests of various kinds. He is required to give a bond for $3,000.

The Student Book Store, located on the first floor of the administration building, is owned and operated by the associated students. It handles all the text-books, stationery, and supplies, at a reduction from the usual prices.

The Stevens and Badger Debating Clubs are organizations for the improvement of their members in the art of debate. That frequent practice may be afforded, the membership in each of these clubs is confined to thirty men students. The meetings are held once a week and announcements of subjects for debate and of other matters of interest are made on the bulletin boards of the clubs. One or more inter-society debates are held each year, and from the contestants are largely chosen the University representatives for the intercollegiate debates.

The Crestomathian Literary Society is an organization of preparatory students. Its purpose is to give practice in addressing an audience, and to familiarize its members with parliamentary proceedings. It meets twice each month.

The King County Bar Association in the spring of 1896 offered a cash prize of $100 to be competed for at the University of Washington by students of the Universities of Washington, Oregon, and Idaho. The work of maintaining this incentive to improvement in oratory has been done by a voluntary committee of the King County Bar Association, consisting of E. F. Blaine and W. S. Fulton.

The Physico-Mathematical Club meets bi-weekly for the presentation of papers upon the progress of investigations being made by the members. It also discusses the most

recent topics in physics, mathematics, engineering, and astronomy.

The Geological Society was organized with special reference to work in geology by students pursuing studies in the scientific departments. Regular meetings are held every Wednesday afternoon, at which original papers are read and discussed. Field work and exploration are an important part of the society's activity.

The Miners' Association is composed of students from the School of Mines. The society holds monthly meetings throughout the year at which original papers are presented by the members, or lectures are delivered by engineers or prominent mining men.

The Chemical Journal Club was organized by the instructors and students in the department of chemistry. The members read and discuss the English and German periodicals devoted to the development of chemistry.

The Pharmaceutical Society is an organization of the students in the School of Pharmacy. It meets bi-weekly for the purpose of discussing current literature on the subject of pharmacy.

The Electrical Engineering Society is an association composed of students in electrical engineering, for the study of technical literature, for promoting a knowledge of the applications of electricity, and for encouraging research. The society gives an exhibit each year, to bring before the public the latest methods by which electricity is applied in the commercial world.

The Societas Classica is an organization of students of the ancient languages, the object being to cultivate an interest in philological, archæological, and linguistic subjects.

The Modern Language Association is an organization of students and others interested in the French, German, and Spanish languages and literatures. The meetings are held monthly. Their purpose is to enlarge upon and give variety to the work of the classroom, and thus to afford greater opportunity for investigation.

The W. T. Harris Club, organized January 29, 1900, is composed of teachers and students in the department of pedagogy. Its purpose is to promote and direct investigation and discussion along such lines as may from time to time be selected or that public educational policy may suggest. The club meets each week.

The Dramatic Club was organized in the fall of 1898 by students for the purpose of encouraging the study of the drama, for the cultivation of dramatic talent among its members, and for the purpose of giving plays from time to time.

The University Orchestra was organized in 1898 and has been doing excellent work. This organization is of great assistance, as it furnishes music for the usual programs during the University year. Other musical associations of the University include a women's glee club, and a men's glee and mandolin club.

The Young Men's Christian Association and The Young Women's Christian Association have each a branch organization among the students of the University. They give a reception at the beginning of each term, and are active in making the new students feel at home and in assisting them in many ways. This they do, in part, by means of a bureau of information maintained by the two associations jointly. The Young Men's Christian Association now has

a regular reading room and headquarters in the men's dormitory and employs a paid secretary.

Three tennis clubs among the young men of the faculty and students control good cinder courts on the campus, where the ordinary playing as well as the periodical tournaments are held. The young women have also recently had two cinder courts built for their match games.

Four of the national Greek letter fraternities have established chapters in the University. There are also four local organizations, which expect to secure charters from national societies before long. Of the four fraternities possessing charters, two live in their own houses; the third lives in a rented house and will build during the summer of 1902; while the fourth is considering plans for building in the near future. Students in the School of Pharmacy have also established an independent fraternity. It is expected that an avenue of fine building sites will soon be opened on the highest part of the University campus for the societies which desire to erect fraternity houses.

EXPENSE OF STUDENTS.

Tuition is free to all residents of the state of Washington in all colleges of the University, except the School of Law, where a special tuition fee of $10 a term, or $25 for the year, is charged. Students taking but one subject pay $5 a term.

The fees charged to graduates are $5 for each one receiving a baccalaureate or higher degree, or a diploma in pharmacy, and $3 for each one receiving a normal diploma.

The fees charged in the laboratories simply cover the

cost of materials used by the students. The charges are specified under the general subject of Laboratory Fees.

All laboratory and locker fees, room-rent, and tuition fees in the School of Law, must be paid in advance to the Registrar of the University.

In the two dormitories, one for men and one for women, board is furnished at cost. A deposit of $15, which is returned at the end of the year, must be made with the Registrar in advance by all students desiring to board at the dormitory. The charge to each student is large enough to maintain the dormitories in a manner that will ensure comfortable rooms, wholesome food, and generally healthful surroundings. The University does not desire to make any profit from these dormitories.

There is always a large number of students who prefer to obtain homes with private families. There are many opportunities for this, and the Registrar is always ready to give information and assistance to students seeking such places. In the past the expense of board and lodging with private families has ranged from $15 to $25 a month.

Many students who have found it necessary to support themselves while at the University have been enabled to do so by securing occupation of various sorts in the city. There is a limited amount of work which the Board of Regents is disposed to give to students. This includes assistance in the library, the laboratories, the engine rooms, and janitor work. Students needing work to help pay their way through the University are given every possible aid by the Faculty Committee on Student Assistance. There is no reason why any ambitious and capable young man or woman desiring an education, should not obtain it at the University of Washington.

LABORATORY FEES.

The University does not desire to make any profit from the fees paid by the students for work in the laboratories. In many cases no fees are charged, except for injury of apparatus, when payment for the cost of the injury is required. The other fees charged are based upon the average cost of material used in the laboratories. Laboratory fees are payable to the registrar in advance. These fees in the several laboratories are as follows:

Chemical.—At the beginning of each term all students are required to make a deposit with the registrar before being assigned their desks. These deposits are as follows: For Chemistry 0, and I, II, and III, the deposit is three dollars. For IV, V, and VI, and VII, VIII, and IX, the deposit is five dollars. For other courses the deposit is arranged at the time the work is outlined. From these deposits one dollar is deducted in Chemistry 0 and I, and two dollars in Chemistry IV and VII, to pay cost of materials furnished. The remainder, less breakage of apparatus, is returned to the student.

Pharmacy.—All students in pharmacy are required to make a deposit with the registrar of five dollars a term, in addition to all other fees. From this deposit two dollars is deducted to pay for drugs used, and the remainder, less breakage, is returned.

Physical and Electrical.—Students are required to make a deposit of five dollars with the registrar, to pay for materials used and apparatus injured by them. At the end of the year the amount of the deposit due the student, if any, is refunded to him.

Botanical.—Material for dissection, stains, alcohol, and other reagents, and type-written laboratory outlines are furnished each student, for which a fee is collected as follows: For the preparatory subjects, one dollar; for other subjects having laboratory work, one dollar for each hour's credit carried through the year, except research work, where the fees are subject to the nature of the work done.

Each student is furnished with a key to a drawer in his laboratory table and one for the case to his microscope, for which a deposit of fifty cents must be made. This is refunded upon return of the keys.

Zoological.—Students are required to make a deposit to cover the estimated cost of materials and reagents used The deposit for the preparatory subjects is one dollar; for all other subjects, three dollars.

Mineralogical.—In mineralogy a fee of one dollar a term is charged, besides which a deposit of five dollars is required as surety for the return of the blowpipe outfits which are loaned to students.

Assaying.—In assaying there is a laboratory fee of five dollars for each course. A deposit of ten dollars is also required to cover cost of material furnished to students If, at the end of the term, the student has not drawn out material to the amount of ten dollars, the balance is refunded. If, however, he has exceeded that amount, he is expected to pay the difference.

DISCIPLINE.

Students are expected to conduct themselves as good citizens, and to perform their work in the University conscientiously. Contravention of these principles will lead to admonition, to suspension, and when students are incorrigible, to expulsion.

ADDRESSES AT ASSEMBLY.

Addresses by members of the faculty and by distinguished scholars and men of affairs are frequently given before the student body in Denny Hall. By this means the work of the class-room is supplemented, and the students obtain a broader outlook upon life through the light of practical experience. The following addresses were given during 1901-2.

Oct. 2, 1901—Address of Welcome—President F. P. Graves.
"The Students' Assembly"—William T. Laube, '02.
"The Alumni"—Professor E. S. Meany.
"The Old Days"—Rev. Daniel Bagley.
The Annual University Address—City Superintendent F. B. Cooper.

Oct. 10—"The George Junior Republic"—Professor F. W. Colegrove.

Oct. 11—"The Social Experiments in New Zealand"—Hon. Henry Demorest Lloyd.

Oct. 15—"The Law of Liberty"—Rev. E. M. Randall.

Oct. 22—"The Salt of the Earth"—Rev. L. J. Sawyer.

Oct. 28—"King Alfred of England"—Rev. Herbert H. Gowen.

Nov. 6.—"Western Universities and New Oriental Problems"—Paul S. Reinsch, Ph. D., Professor of Political Science, University of Wisconsin.

Nov. 18—"Some Stanford Customs"—Professor Milnor Roberts.
"What Happened at Bowdoin"—Professor A. S. Haggett.
"The Assembly Period"—President F. P. Graves.

Nov. 25—"Traditions of Indiana University"—Professor A. H. Yoder.
"Yale Reminiscences"—Professor F. M. Padelford.

Dec. 2—"College Days"—Hon. S. G. Cosgrove, Mayor of Pomeroy.

Dec. 6—"Washington's Opportunities"—Professor Richard T. Ely, Director of the School of Economics and Political Science, University of Wisconsin.
"The University of Wisconsin"—President F. P. Graves.
"The Preacher and the Teacher"—Rev. W. D. Simonds.
"Educational Relationships"—Rev. J. P. D. Llwyd.
"Academic Freedom"—Hon. Richard Winsor.

Dec. 9—"Gustavus Adolphus"—Rev. M. A. Christensen.

Dec. 16—"Chief Joseph of Nez Perces Tribe"—Professor E. S. Meany.

Jan. 6, 1902—"The Educational Relations of Governor John R. Rogers"—Professor W. J. Meredith.

Jan. 13—"The Origin of the Calendar"—Professor Arthur Ranum.
"How the Sun Rose in Virginia"—Rev. William Ollinger, of Tacoma.

Jan. 20—"The Nobel Prizes"—Professor H. G. Byers.

Jan. 29—"William McKinley"—Rev. J. P. D. Llwyd.

Feb. 3—"A Universal Alphabet"—Major Frank Terry, of the Puyallup Indian School.

Feb. 10—"Charles Darwin"—Professor Trevor Kincaid.

Feb. 17—"Asa Gray"—Joseph Shippen, Esq.

Feb. 24—"What We Owe to President Eliot"—President F. P. Graves.

March 3—"The True and False in Elocution and Oratory"—Professor Edward B. Warman.

March 10—"Alexander Hamilton"—Professor J. Allen Smith.
April 7—"Reminiscences of Foot Ball in U. of W."—Hon. Ralph H. Nichols, '96.
April 14—"Education in China"—Rev. J. P. Smyth.
April 21—"Jeanne d'Arc"—Rev. J. P. D. Llwyd.
April 28—"Thomas H. Huxley"—James E. Bradford, Esq.
May 5—"Elbert Hubbard"—Professor A. H. Yoder.
May 19—"Expression"—Mrs. Horace McClure.
May 26—"The Niebelungenlied"—Hon. Rasmus B. Anderson, formerly Minister to Denmark.
June 2—"Native Birds"—Clinton Cook, M. D.

INSTITUTES AND LECTURES.

The various members of the University faculty hold themselves ready to respond to calls for lectures before institutes, University extension centers, clubs, and assemblies, whenever such service does not interfere with the regular work in the institution. Several of the instructors who have had experience in the lecture field and in institute work are ready to give regular instruction in the institutes of the state and in educational organizations. Calls for work should be addressed to the individual professors, or to the secretary of the faculty.

ORGANIZATION OF THE UNIVERSITY.

The UNIVERSITY OF WASHINGTON embraces:—
The College of Liberal Arts.
The College of Engineering.
The School of Mines.
The School of Pharmacy.
The School of Law.

The courses leading to baccalaureate degrees in the College of Liberal Arts, the College of Engineering, and the School of Mines, are arranged to cover a period of four years. The course in the School of Law is for a period of two years. The course in the School of Pharmacy covers two years, and an advanced course takes two years longer. The courses leading to master's degrees are not less than one year.

In the College of Liberal Arts are given the degrees of Bachelor of Arts (A. B.) and Master of Arts (A. M.); in the College of Engineering, Bachelor of Science (B. S.), Civil Engineer (C. E.), Mechanical Engineer (M. E.), and Electrical Engineer (E. E.); in the School of Mines, Bachelor of Science (B. S.), and Engineer of Mines (E. M.); in the School of Pharmacy, Graduate in Pharmacy (Ph. G.), and Pharmaceutical Chemist (Ph. C.); and in the School of Law, Bachelor of Laws (LL. B.).

The School of Medicine is not yet organized.

Work in military science and tactics is required of all able-bodied male students of the various colleges during the first two years of their University residence. The young women of the colleges are required to take work in physical culture and hygiene during the same period. However, this requirement does not apply to persons entering the junior or the senior year.

DIVISION OF THE YEAR.

The year is divided into three terms, called respectively the fall, winter, and spring terms. Admission will be granted at the beginning of any term to students properly

prepared, but freshmen should always enter, if possible, at the beginning of the fall term.

ADMISSION.

I. Regular Admission.

Admission to the freshman class may be secured in three ways:—

1. Admission by examination.
2. Admission from an accredited school.
3. Admission from the Preparatory School of the University of Washington.

1.—*Admission by Examination.*

To be admitted in this way, students must pass an examination* in one of the four groups of subjects mentioned below.

Full details of the ground each subject covers is found below under the head of Suggestions for Preparation.

To count as a "unit," a subject must be taught four times a week, in periods of not less than forty-five minutes, for a school year of at least thirty-six weeks.

Group I. (*Classical.*)	Group II. (*Literary.*)	Group III. (*Scientific.*)	Group IV. (*Engineering.*)
First Year:			
English.	English.	English.	English.
Algebra.	Algebra.	Algebra.	Algebra.
Physiography.	Physiography.	Physiography.	Physiography.
Latin.	Latin.	Option.	Mechanical Drawing and Manual Training or Option.

*For date of examinations, see Calendar on page 17.

Second Year:			
English.	English.	English.	English.
Plane Geometry.	Plane Geometry.	Plane Geometry.	Plane Geometry.
General History.	General History.	General History.	General History.
Latin.	Latin.	Biology.	Biology.
Third Year:			
English.	English.	English.	English.
Physics.	Physics.	Physics.	Physics.
Latin.	Latin.	German or French.	German or French.
Greek.	Algebra (½ yr), and Solid Geometry or Option (½ yr.)	Algebra (½ yr), and Solid Geometry or Option (½ yr.)	Algebra (½ yr), and Solid Geometry or Option (½ yr.)
Fourth Year:			
English.	English.	English.	English or Math.
Latin.	Latin.	2nd yr. German, or 2nd yr. French.	2nd yr. German, or 2nd yr. French.
Civics and Greek and Roman History.	Civics and Greek and Roman History.	Civics and American History.	Civics and American History.
Greek.	Option.	Science.	Chemistry.

Note 1.—The outline by years is by way of suggestion. The subjects in the respective courses are required to the aggregate number of 15 units.

Note 2.—In the fall of 1902, the students who are not prepared to meet these requirements, will be allowed to enter according to the requirements for admission given in the catalogue of June, 1901, as follows:

Group I. (*Classical.*)	*Group II.* (*Literary.*)
English, 3 units.	English, 3 units.
Mathematics, 3 units.	Mathematics, 3 units.
American History, Civil Government — 1 unit.	American History, Civil Government — 1 unit.
Elementary Latin, 2 units.	Elementary Latin, 2 units.
Advanced Latin, 2 units.	Advanced Latin, 2 units.
Greek, 2 units.	German or French, 2 units.
Three other units from the List for Election, which appears below. Total, 16 units.	Three other units from the List for Election, which appears below. Total, 16 units.

Group III. (Scientific.)	*Group IV. (English.)*
English, 3 units.	English, 3 units.
Mathematics, 3 units.	Mathematics, 3 units.
American History, Civil Government } 1 unit.	American History, Civil Government } 1 unit.
Biology, 1 unit.*	Biology, 1 unit.*
Physics, 1 unit.	Physics, 1 unit.
German or French, 2 units.	Seven other units from the List for Election, which appears below. Total, 16 units.
Five other units from the List for Election, which appears below. Total, 16 units.	

LIST FOR ELECTION.—Chemistry, Physical Geography, Zoology, Physiology, Mechanical Drawing, Solid Geometry and Plane Trigonometry, English History, Greek and Roman History, and any other subject not specified in the group.

SUGGESTIONS FOR PREPARATION.

The following suggestions for preparation will enable students intending to enter to understand exactly what is expected under the head of each subject. Attention is called to the discussion of the methods of teaching the various high school subjects given in The University Bulletin, Series IV, Numbers 1 and 2.

I.—ENGLISH.

English A: Reading and Practice.—A certain number of books will be set for reading. The candidate will be required to present evidence of a general knowledge of the subject-matter, and to answer simple questions on the lives of the authors. The form of examination will usually

*The unit in Biology may consist of one-half unit in Botany and one-half unit in Zoology, or an entire unit in either Botany or Zoology.

be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books.

In preparation for this part of the examination, it is important that the candidate shall have been instructed in the fundamental principles of rhetoric.

The books set for this part of the examination in the years 1903-1905, are:—

Shakespeare's Merchant of Venice and Julius Cæsar; The Sir Roger de Coverley Papers in The Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; Scott's Ivanhoe; Carlyle's Essay on Burns; Tennyson's Princess; Lowell's Vision of Sir Launfal; George Eliot's Silas Marner.

English B: Study and Practice.—This part of the examination presupposes more careful study of each of the works named below. The examination will be upon subject-matter, form, and structure, and will also test the candidate's ability to express his knowledge with clearness and accuracy. In addition, the candidate may be required to answer questions involving the essentials of English grammar, and questions on the leading facts in those periods of English literary history to which the prescribed works belong.

The books set for this part of the examination in the years 1903-1905, are:—Shakespeare's Macbeth; Milton's Lycidas, Comus, L'Allegro, and Il Penseroso; Burke's

Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

II.—MATHEMATICS.

1. *Algebra.*—The amount of work in algebra should be at least five recitations a week for a year and a half. It should include factoring, fractions, simple equations, both numerical and literal, simultaneous equations, evolution, surds, fractional and negative exponents, quadratic equations, ratio and proportion. Wentworth's New School Algebra, Fisher & Schwatt's School Algebra, Wells' Essentials of Algebra are good books to use in preparation for this subject.

2. *Plane Geometry.*—This includes all of plane geometry, as given in the usual text-books, like those of Milne, Wentworth, and Wells. It is absolutely essential that the student should have a thorough drill in original theorems, problems and numerical exercises.

The amount of work in plane geometry should be at least five recitations a week for a year.

3 and 4. *Solid Geometry and Plane Trigonometry.*—Books VI, VII, and VIII, of Milne's Geometry, or equivalent, should be carefully studied. The work should include original theorems, problems, and numerical exercises. The work in plane trigonometry should include the solution of plane triangles and logarithmic computation.

III—HISTORY AND GOVERNMENT.

1. *American History.*—Study the history of the United States and the general facts of physical, political, and descriptive geography. McLaughlin's History of the American Nation; Montgomery's Student's American History;

and Channing's Student's History of the United States are recommended as good works for preparation.

2. *Civics.*—A careful study of John Fiske's Civil Government should be made. The candidate will be examined on the topics of the text and be required to write an essay on one of them assigned at the time of the examination.

3. *General History.*—Myers's General History is suggested as text-book in general history. This subject will require one full year of high school or academic training for university entrance.

4. *English History.*—Larned's History of England, Gardiner's Student's History of England, and Montgomery's Leading Facts of English History are recommended as text-books. There should be collateral reading in more extensive works, such as the Epoch monographs, Gardiner's larger history, Macaulay, and Green. At least one year should be spent in preparation.

5. *Greek and Roman History.*—Myers's Ancient History is recommended as the best text for preparation in this subject. The first 151 pages are devoted to the history of the Eastern Nations down to 527 B. C., and the rest of the book is given to Greece and Rome. The subject will make a full year's work in preparation.

IV.—BOTANY.

As stated in the requirements for admission, botany may be offered as one unit, or as one-half unit. In the former case it should consist of at least two recitations and four laboratory hours a week for nine months; in the latter, similar work for half that period.

The student should be familiar with the gross anatomy of the flowering plants, and should have some knowledge of

plant physiology and ecology. He should have at least enough experience with the compound microscope to enable him to use it properly in the laboratory, and above all he should have a good set of drawings and laboratory notes as evidence of his year's work.

The work and methods outlined in any of the following texts will serve to indicate what is desired: Spaulding's Introduction to Botany; Atkinson's Elementary Botany; Coulter's Plant Studies or his Plant Relations; Barnes's Plant Life; Bergen's Foundations of Botany.

V.—ZOOLOGY.

The student applying for a full unit of entrance credit in this subject must give evidence of nine months' work under a competent teacher, in the form of notes and drawings illustrating the course pursued. He should be familiar with the general structure of the more common forms of animal life and is expected to have some knowledge of the manipulation of the compound microscope. As a basis for preparation the use of Packard's Zoology or Jordan's Animal Life, accompanied by practical laboratory work, is suggested.

VI.—PHYSICS.

An amount represented by Gage's Elements of Physics (Revised), Stewart's Lessons in Elementary Physics, or Carhart and Chute's Physics. This study must be preceded by algebra to quadratic equations, and plane geometry, each of which should continue throughout one school year. Laboratory practice must accompany the study of the text.

VII.—LATIN.

Freshman Latin is the fifth year's work in the subject. The four years' work done in the high school must be the equivalent of the Latin course outlined by the State Board of Education and cover substantially the following courses and subjects:

First Year.—Collar and Daniell's First Year Latin, or equivalent. Subjects that must be mastered are pronunciation (with accent and quantity of vowels), regular declensions and conjugations, the vocabularies (with etymologies and English derivatives), simple rules of syntax, simple translation, and Latin writing.

Second Year.—Second Year Latin, Greenough, D'Ooge, and Daniell; and Latin Composition, D'Ooge. Part II of Second Year Latin should be covered, with selections from Part I, and work should be done in Latin Prose Composition, the equivalent of one day's work a week throughout the year. If Caesar is used instead of Second Year Latin, four books should be read and prose work done one day in the week with Jones's Latin Prose, Daniell's New Latin Composition, Part I, or Riggs-Scott's In Latinum (Caesar). The student should be familiar with the life and times of Caesar, the Roman army, and methods of war.

Third Year.—Six of Cicero's Orations, with prose work one day in the week throughout the year. The prose work may be done with the Cicero section of the prose books recommended for Caesar. The student should be familiar with the life and times of Cicero, the subject of Roman oratory, Roman institutions, particularly the courts, and Roman public officials. Through reading independently,

the student should be able to translate an average passage of Cæsar or Cicero at sight, when these authors are completed.

Fourth Year.—Vergil, six books of the Aeneid. Special attention should be paid to prosody, the syntax of Vergil, mythology, and the history and purpose involved in the poem.

VIII.—GREEK.

First Year.—Graves and Hawes's A First Book in Greek. Drill in inflections and constructions. Goodwin and White's Xenophon's Anabasis, book I. Exercises in translating English into Greek.

Second Year.—Xenophon's Anabasis, books II-IV. Seymour's Iliad of Homer, books I-III. Woodruff's Greek Prose Composition. Sight translation.

IX.—GERMAN.

The principles of German grammar as given in some standard grammars, such as Joynes-Meissner's German Grammar, including translation and composition exercises; about 150 pages of prose such as is found in the standard German readers; and a classic such as Schiller's Wilhelm Tell or Die Jungfrau von Orleans. Special attention should be given to the declensions and conjugations and to pronunciation as well as to vocabulary.

X.—FRENCH.

A knowledge of elementary grammar, as outlined in Edgren's French Grammar, or an equivalent, is necessary. The candidate should also be able to read modern prose of ordinary difficulty. This power can be acquired by reading at least two hundred duodecimo pages from at least three

different authors, who are not all novelists. Ability to translate some connected passage of ordinary prose from French into English, and *vice versa,* is also needed.

Practice in dictation should be given, and pronunciation should be carefully taught. The Model Course in French, prepared by a committee of the Modern Language Association of America, published by Heath & Company, will be found helpful for teachers.

XI.—CHEMISTRY.

The equivalent of one year's work in the high school. Remsen's Briefer Course, or an equivalent. Laboratory work is necessary.

XII.—PHYSICAL GEOGRAPHY.

The preparation on this subject should include at least one full year's work in elementary geology or physiography. Shaler's First Book in Geology, and Davis's or Tarr's Physical Geography are examples of good texts.

XIII.—DRAWING.

The equivalent of one year's work in mechanical or freehand drawing.

XIV.—PHYSIOLOGY.

Study the elements of the mechanics, the physics, and the chemistry of the living body, as outlined in Walker's or Hutchinson's Physiology. The text-book should be accompanied by experiments, dissection of animals and organs, and a certain amount of study of the tissues with the compound microscope.

2.—*Admission from an Accredited School.*

Upon request of the principal of any high school or academy whose course of study embraces in kind and extent the subjects required for admission to the College of Liberal Arts, a committee of the faculty will visit said school and report upon the quality of the instruction given. If the report is favorable, any graduate of that school will be admitted without examination.

Students, in order to be admitted without examination, must bring with them a full statement of their high school or academy studies, signed by the proper authorities.

The faculty reserves the right, however, to examine the candidate in any subject, if for any reason the work in that subject is deemed insufficient or otherwise unsatisfactory.

LIST OF ACCREDITED SCHOOLS.

The schools mentioned below will be considered "accredited" for one year, and their graduates admitted to the freshmen class of the College of Liberal Arts without examination.

HIGH SCHOOLS.

Aberdeen,	Fairhaven,	Spokane,
Ballard,	Kent,	Tacoma,
Centralia,	North Yakima,	Vancouver,
Chehalis,	Port Townsend,	Walla Walla,
Davenport,	Puyallup,	Waterville,
Everett,	Seattle,	Whatcom.

ACADEMIES.

Annie Wright Seminary, Tacoma.
Klickitat Academy, Goldendale.
Puget Sound Academy, Snohomish.
St. Paul's School, Walla Walla.
Waitsburg Academy, Waitsburg.

3.—*Admission from the Preparatory School.*

Students completing the course of the Preparatory School of the University are admitted to the freshman class of the College of Liberal Arts.

II.—ADMISSION AS SPECIAL STUDENTS.

Persons who are at least eighteen years of age will be allowed to enroll for special courses of study, on giving satisfactory evidence of their fitness to pursue the particular courses which they desire to elect. Such students will be classified, as in the case of regular students, on the basis of the term hours which have been entered to their credit on the University records. They will have all the privileges and be subject to the regulations of the members of the class in which their credits rank them.

III.—ADMISSION TO ADVANCED STANDING.

Students from classes above the freshmen in other colleges of recognized rank, who present letters of honorable dismissal, may be admitted to the advanced standing for which their trainings seems to fit them. No advanced credit will be given for work done in institutions whose standing is unknown, except upon examination. Definite

advanced standing will not be given until the student has been in residence for a term.

ELECTION OF STUDIES.

Blanks will be provided for the election of studies. Students, under the direction of their advisers, must fill out these blanks. No credit will be allowed for any course not named in the blank.

Fifteen hours a week is the regular number of hours of work for every student, the amount necessary for the completion of the college course in four years. A student may take eighteen hours upon the recommendation of his adviser. No student may take more than eighteen, nor fewer than fifteen hours, except by permission of the Committee on Petitions. Students who have been conditioned in any examination will not be allowed to take the maximum number of hours until the condition is removed.

REGISTRATION.

Registration Day is the first day of each term. A student is first to present himself before the Committee on Admission and be assigned to the proper class officer and given the necesssary blank enrollment forms. He is next to present himself before the President and receive that officer's signature on his blank. Finally he is to appear before his class officer and be assigned to his classes.

THE COLLEGE OF LIBERAL ARTS.

THE FACULTY.

FRANK P. GRAVES, PH. D., LL. D.,
PRESIDENT.

CHARLES F. REEVES, M. S., DEAN,
Professor of German.

HENRY LANDES, A. M.,
Professor of Geology and Mineralogy.

EDMOND S. MEANY, M. L.,
Professor of History.

J. ALLEN SMITH, PH. D.,
Professor of Political and Social Science.

ARTHUR RANUM, A. B.,
Professor of Mathematics and Astronomy.

ALMON H. FULLER, C. E.,
Professor of Mechanics.

HOMER R. FOSTER, M. S.,
Professor of Botany.

FREDERICK W. COLEGROVE, PH. D.,
Professor of Philosophy.

ARTHUR R. PRIEST, A. M.,
Professor of Rhetoric and Oratory.

HORACE G. BYERS, PH. D.,
Professor of Chemistry.

CHARLES W. VANDER VEER,
Professor of Physical Culture.

CAROLINE H. OBER,
Professor of Romanic Languages.

THOMAS F. KANE, PH. D.,
Professor of Latin.

TREVOR C. D. KINCAID, A. M.,
Professor of Zoology.

FREDERICK M. PADELFORD, PH. D.,
Professor of English Literature.

ALBERT H. YODER, A. B.,
Professor of Pedagogy.

ASA T. ABBOTT, LIEUT. U. S. A. (*retired*),
Professor of Military Science.

MILNOR ROBERTS, A. B.,
Professor of Mining and Metallurgy.

ARTHUR S. HAGGETT, PH. D.,
Professor of Greek.

FREDERICK A. OSBORN, PH. B.,
Professor of Physics.

WILLIAM J. MEREDITH, A. B.,
Associate Professor of English.

MARTHA L. HANSEE, A. M.,
Associate Professor of Greek and Latin.

JAMES E. GOULD, PH. B.,
Assistant Professor of Mathematics.

THOMAS W. LOUGH, A. B.,
Assistant Professor of Chemistry.

DAVID KELLY, A. M.,
Assistant Professor of Physics.

RUDOLF E. HEINE, B. S.,
Assistant Professor of Mechanics.

Other Instructors.

OTTILIE G. BOETZKES, A. M.,
Instructor in Modern Languages.

HENRY G. KNIGHT, A. B.,
Instructor in Chemistry.

ANNA HUBERT, A. B.,
Instructor in German.

GEORGE B. MOREHOUSE,
Assistant in Chemistry.

PURPOSE.

The College of Liberal Arts is intended to furnish a general training in language, literature, science, and philosophy, of the same standard as that set by the oldest colleges of this country.

Throughout the course the student has large liberty in choosing his subjects, but through the advice of some member of the faculty he is guided in everything after the general direction of his work has been once determined.

ADMISSION.

Students may be admitted to the College of Liberal Arts in the three ways indicated on page 71.

COURSE OF THE COLLEGE OF LIBERAL ARTS.

The requirement for graduation from the College of Liberal Arts is the satisfactory completion of subjects aggregating one hundred and eighty "term hours," exclusive of the twelve credits in military drill or physical culture required of every student.

The unit "term hour" is used to represent one recitation a week for a period of one term. A subject requiring three hours a week for one term represents three "term hours"; if it requires three hours a week for one year, it represents nine "term hours".

Plan of the Course.

The general plan given below shows how the one hundred and eighty term hours are to be divided. The Roman numerals indicate various subjects in each department, which are described in full under the departmental statements, page 113 and following.

FRESHMAN YEAR.

	Term hours.
Latin I, II, III; French I, II, III, or VII, VIII, IX; or Spanish I, II, III	9
Greek I, II, III, or X, XI, XII; German I, II, III, or VII, VIII, IX	9
Zoology I, II, III; Botany I, II, III; Geology I, II, III; Chemistry I, II, III, or Physics I, II, III	9
Rhetoric I, II, III	9
Mathematics I, II, III	9
Military Drill (for men); or Physical Culture (for Women)	6
	51

SOPHOMORE YEAR.

Continuation of a language taken in Freshman Year	9
English Literature I, II, III	9
Political Science I, II, III, or (by special permission), X, XI, XII; or History I, II, III, or IV, V, VI	9
Elective	18
Military Drill (for men); or Physical Culture (for Women)	6
	51

JUNIOR YEAR.

Philosophy I, II, III	9
Major Study	9
Collateral Study or Studies	9
Elective	18
	45

SENIOR YEAR.

Major Study	18
Collateral Study or Studies	18
Elective	9
	45

SUMMARY OF THE COURSE.

It will be seen that while every line of study is represented in the foregoing course, the student is given considerable freedom in choosing specific subjects, and that wide opportunities for developing individuality and prepar-

ing for a specialty or for professional study are likewise afforded.

The course may be described as follows:

	Term hours.
Prescribed	36
Elective within limits	45
Free elective	45
Major Study	27
Collateral Study or Studies	27
	180
Military Drill or Physical Culture	12
	192

MAJOR AND COLLATERAL STUDIES.

At the beginning of his junior year every student is required to select a major study. He then has the head of that department as his adviser and must consult him with regard to every step in his course. The student must then do work in his major study, which, with the addition of the work already done in this study, will amount to at least twenty-seven term hours; he must also do twenty-seven term hours in a collateral study or studies, that is, in subjects related to his major work and calculated to strengthen it.

DEGREES.

Students who complete the course of the College of Liberal Arts will receive the degree of Bachelor of Arts (A. B.)

Degree With Honors.

A degree with honors in his major study will be conferred upon any student who shall have attained a grade of

A in his major department, a grade of B in his collateral department or departments, and has never been conditioned in any college subject.

Each head of a department shall recommend to the faculty at the first meeting in May all seniors making a major in his department, who in his judgment are worthy of honors at commencement.

No student may take honors in more than one subject.

THE NORMAL DIPLOMA.

It is the proper function of the University, as the head of the system of public instruction, to furnish properly trained persons to act as superintendents, principals, and assistants in the larger public schools, and as instructors in high schools and academies. It is hoped, by giving instruction in the theory and art of teaching, that these schools may be brought into closer relations with the University. To this end a normal diploma will be granted to students taking a baccalaureate or higher degree in the College of Liberal Arts, who shall complete twenty-seven term hours of prescribed work in the department of pedagogy, provided they give satisfactory evidence of their fitness for teaching.

Teachers' Certificates.

Under the school laws of the State of Washington this diploma entitles the holder to the following:

(1.) A first grade common school certificate, valid for a period of five years from the date of issue.

(2.) A state certificate valid for five years, when he shall file satisfactory evidence of having taught successfully twenty-seven months, at least nine of which were in the public schools of this state.

(3.) A life diploma to teach in any public school of this state, when he shall have filed with the State Board of Education satisfactory evidence that he has taught successfully for ninety months, not less than fifteen of which shall have been in the public schools of this state.

MASTER'S DEGREES.

The degree of Master of Arts (A. M.) or Master of Science (M. S.) is conferred upon graduates of the University, and upon others who have had an equivalent training elsewhere, on the satisfactory completion in residence of one year of graduate work, and on the presentation of an approved thesis, and the passing of a satisfactory examination.

THE COLLEGE OF ENGINEERING.

THE FACULTY.

FRANK P. GRAVES, PH. D., LL. D.,
PRESIDENT.

ALMON H. FULLER, M. S., C. E., DEAN,
Professor of Civil Engineering.

CHARLES F. REEVES, M. S.,
Professor of German.

HENRY LANDES, A. M.,
Professor of Mineralogy.

EDMOND S. MEANY, M. L.,
Professor of History.

J. ALLEN SMITH, PH. D.,
Professor of Political Science.

ARTHUR RANUM, A. B.,
Professor of Mathematics and Astronomy.

ARTHUR R. PRIEST, A. M.,
Professor of Rhetoric.

HORACE G. BYERS, PH. D.,
Professor of Chemistry.

CHARLES W. VANDER VEER,
Professor of Physical Culture.

CAROLINE H. OBER,
Professor of French and Spanish.

ASA T. ABBOTT, LIEUT. U. S. A. (*retired*),
Professor of Military Science.

MILNOR RORERTS, A. B.,
Professor of Metallurgy.

FREDERICK A. OSBORN, PH. B.,
Professor of Physics and Electrical Engineering.

WILLIAM J. MEREDITH, A. B.,
Associate Professor of English.
JAMES E. GOULD, PH. B.,
Assistant Professor of Mathematics.
THOMAS W. LOUGH, A. B.,
Assistant Professor of Chemistry.
DAVID KELLY, A. M.,
Assistant Professor of Physics and Electrical Engineering.
RUDOLF E. HEINE, B. S.,
Assistant Professor of Mechanical and Electrical Engineering.

Other Instructors.

OTTILIE G. BOETZKES, A. M.,
Instructor in Modern Languages.
HENRY G. KNIGHT, A. B.,
Instructor in Chemistry.
ANNA HUBERT, A. B.,
Instructor in German.
GEORGE B. MOREHOUSE,
Assistant in Chemistry.
HARRY W. BOETZKES,
Assistant in Surveying.
JESSE A. JACKSON,
Assistant in Drawing.

PURPOSE.

The College of Engineering offers three complete courses,—civil, mechanical, and electrical.

The aim of this College is to impart such training as will prepare its graduates for immediate usefulness in their chosen professions. During the freshman and sophomore

years there is laid a broad foundation of mathematics, physics, chemistry, English, modern languages, and drawing. Field work in surveying is required, in addition, of students in civil engineering. The last two years are devoted to work more purely professional. Particular care is taken throughout the courses to enforce the practical application of the principles taught.

ADMISSION.

Students at least sixteen years of age may be admitted to the freshman class of the College of Engineering in three ways,—

(1.) By passing a satisfactory examination in English, algebra, plane and solid geometry, American history, civics, physics, chemistry, and German or French; and four other units chosen from drawing, trigonometry, modern languages, English history, general history, botany, or biology.

(2.) By completing in the Preparatory School of the University of Washington the subjects mentioned under (1).

(3.) By presenting a certificate of graduation from the English course, or any other that includes drawing, solid geometry, chemistry, and a modern language. of an accredited high school of four years. (For list of accredited high schools see page 81).

It is desirable for the student to review his preparatory mathematics just before entering the College of Engineering. By such a step much time will be saved and the work of the College will be rendered easier and far more valuable.

COURSES OF THE COLLEGE OF ENGINEERING.

The Roman numerals indicate various subjects in each department which are described in full under the departmental statements, page 113 and following. The Arabic numerals indicate the number of hours a week a subject is given. Where no Arabic numerals appear, 3 is understood.

Course in Civil Engineering.

Fall Term.	*Winter Term.*	*Spring Term.*
	FRESHMAN YEAR.	
Mathematics I, a, 4.	Mathematics II, a, 4.	Mathematics III, a, 4.
Chemistry I.	Chemistry II.	Chemistry III.
Rhetoric I.	Rhetoric II.	Rhetoric III.
Drawing I.	Drawing II.	Surveying I, 4.
German VII, French VII, or Spanish IV.	German VIII, French VIII, or Spanish V.	German IX, French IX, or Spanish VI.
Shopwork I.	Shopwork II.	Shopwork III.
Military Science.	Military Science.	Military Science.
	SOPHOMORE YEAR.	
Matnematics VII, 5.	Mathematics VIII, 5.	Mathematics IX, 5.
Chemistry XVI.	Metallurgy II.	Industrial Electricity.
Physics I.	Physics II.	Physics III.
Physics IV.	Physics V.	Physics VI.
Surveying II.	Drawing IV.	Surveying III.
Military Science.	Military Science.	Military Science.
	JUNIOR YEAR.	
Mechanics I, 4.	Mechanics II, 4.	Mechanics III, 4.
Railroads I, 4.	Railroads II.	Railroads III.
Descriptive Geometry I.	Descriptive Geometry II.	Descriptive Geometry III.
Geology I.	Geology II.	Geology III.
Political Science I.	Political Science II.	Political Science III.
	SENIOR YEAR.	
Hydraulics I, 4.	Hydraulics II, 4.	Hydraulics III, 4.
Bridges I.	Bridges II.	Bridges III.
Astronomy I, 2.	Astronomy II, 2.	Astronomy III, 2.
Masonry Construction I.	Masonry Construction II.	Surveying IV.
Elective 3.	Mathematics XVI.	Thesis.
	Thesis.	

Course in Mechanical Engineering.

Fall Term.	*Winter Term.*	*Spring Term.*
	FRESHMAN YEAR.	
Mathematics I, a, 4.	Mathematics II, a, 4.	Mathematics III, a, 4.
Chemistry I.	Chemistry II.	Chemistry III.
Rhetoric I.	Rhetoric II.	Rhetoric III.
Drawing I.	Drawing II.	Drawing III.
Shopwork I.	Shopwork II.	Shopwork III.
{ German VII, French VII, or Spanish IV.	{ German VIII, French VIII, or Spanish V.	{ German IX, French IX, or Spanish VI.
Military Science.	Military Science.	Military Science.
	SOPHOMORE YEAR.	
Mathematics VII, 5.	Mathematics VIII, 5.	Mathematics IX, 5.
Machine Design I.	Machine Design II.	Machine Design III.
Physics I.	Physics II.	Physics III.
Physics IV.	Physics V.	Physics VI.
Shopwork IV.	Shopwork V.	Shopwork VI.
Industrial Chemistry XVI.	Metallurgy II.	Industrial Electricity.
Military Science.	Military Science.	Military Science.
	JUNIOR YEAR.	
Mechanics I, 4.	Mechanics II, 4.	Mechanics III, 4.
Machine Design IV.	Machine Design V.	Machine Design VI.
Political Science I.	Political Science II.	Political Science III.
Shopwork VII.	Shopwork VIII.	Shopwork IX.
Descriptive Geometry I.	Descriptive Geometry II.	Descriptive Geometry III.
Dynamo Machinery I, 2.	Dynamo Machinery II, 2.	Dynamo Machinery III, 2.
Dynamo Testing IV, 2.	Dynamo Testing V, 2.	Dynamo Testing VI, 2.
	SENIOR YEAR.	
Complete Machines VII.	Complete Machines VIII.	Seminary Work IX.
Steam Engineering I, 2.		Steam Engineering III, 2.
Steam Laboratory IV, 2.	Steam Engineering II, 2.	
Electric Railways, 2.		Steam Laboratory VI, 2.
Hydraulics I, 4.	Steam Laboratory V, 2.	
Shopwork X, 2.	Power Plants, 2.	Transmission of Power, 2.
Elective in { Physics, Mathematics, Engineering.	Hydraulics II, 4.	Elective.
	Shopwork XI, 2.	Elective.
	Elective.	
Thesis.	Thesis.	Thesis.

Course in Electrical Engineering.

Fall Term.	*Winter Term.*	*Spring Term.*
	FRESHMAN YEAR.	
Mathematics I, a, 4.	Mathematics II, a, 4.	Mathematics III, a, 4.
Rhetoric I.	Rhetoric II.	Rhetoric III.
Chemistry I.	Chemistry II.	Chemistry III.
Shopwork I.	Shopwork II.	Shopwork III.
Drawing I.	Drawing II.	Drawing III.
{ French VII, German VII, or Spanish IV.	{ French VIII, German VIII, or Spanish V.	{ French IX, German IX, or Spanish VI.
Military Science.	Military Science.	Military Science.
	SOPHOMORE YEAR.	
Mathematics VII, 5.	Mathematics VIII, 5.	Mathematics IX, 5.
Machine Design I.	Machine Design II.	Machine Design III.
Physics I.	Physics II.	Physics III.
Physics IV.	Physics V.	Physics VI.
Shopwork IV.	Shopwork V.	Shopwork VI.
Chemistry XVI.	Metallurgy II.	Industrial Electricity.
Military Science.	Military Science.	Military Science.
	JUNIOR YEAR.	
Mechanics I, 4.	Mechanics II, 4.	Mechanics III, 4.
Descriptive Geometry I.	Descriptive Geometry II.	Descriptive Geometry III.
Physics VII.	Physics VIII.	Physics IX.
Physics X.	Physics XI.	Physics XII.
Dynamo Machinery I, 2.	Dynamo Machinery II, 2.	Dynamo Machinery III, 2.
Dynamo Testing IV, 2.	Dynamo Testing V, 2.	Dynamo Testing VI, 2.
	SENIOR YEAR.	
Alternating Currents I, 4.	Alternating Currents II, 4.	Alternating Currents III, 4.
Electric Railways, 2.	Power Plants, 2.	Transmission of Power, 2.
Hydraulics I, 4.	Hydraulics II, 4.	Political Science III.
Political Science I.	Political Science II.	Thesis.
{ Electrical Engineering Physics, or Mathematics.	{ Electrical Engineering Physics, or Mathematics.	{ Electrical Engineering Physics, or Mathematics.
	Thesis.	

Thesis.

A thesis, as shown in the outline above, is required of each student of the College of Engineering in his senior year. It is intended that this thesis shall represent original research or design in some branch of engineering, or the careful review of some existing construction. The subject must be approved by the professor in charge of the department under which it is classified, not later than the first of January in the senior year.

DEGREES.

The courses of the College of Engineering lead to the degrees of Bachelor of Science (B. S.) in civil, mechanical, and electrical engineering, respectively.

Degree With Honors.

A degree with honors in engineering will be conferred upon any student of the College of Engineering who shall have attained a grade of A in civil, mechanical, or electrical engineering, and has never been conditioned in any college subject.

Advanced Degrees.

The master's degrees in engineering, namely, Civil Engineer (C. E.), Mechanical Engineer (M. E.), and Electrical Engineer (E. E.) will be conferred upon graduates in engineering who have pursued satisfactorily one year of graduate work in the University, or who give evidence of having been engaged in responsible work for three years in their chosen profession and present a satisfactory thesis.

THE SCHOOL OF MINES.

THE FACULTY.

FRANK P. GRAVES, PH. D., LL. D.,
PRESIDENT.

MILNOR ROBERTS, A. B., DEAN.
Professor of Mining Engineering and Metallurgy.

CHARLES F. REEVES, M. S.,
Professor of German.

HENRY LANDES, A. M.,
Professor of Geology and Mineralogy.

EDMOND S. MEANY, M. L.,
Professor of History.

J. ALLEN SMITH, PH. D.,
Professor of Political and Social Science.

ARTHUR RANUM, A. B.,
Professor of Mathematics.

ALMON H. FULLER, C. E.,
Professor of Civil Engineering.

HOMER R. FOSTER, M. S.,
Professor of Botany.

ARTHUR R. PRIEST, A. M.,
Professor of Rhetoric.

HORACE G. BYERS, PH. D.,
Professor of Chemistry.

CHARLES W. VANDER VEER,
Professor of Physical Culture.

CAROLINE H. OBER,
Professor of French and Spanish.

TREVOR C. D. KINCAID, A. M.,
Professor of Zoology.
ASA T. ABBOTT, LIEUT. U. S. A. (*retired*),
Professor of Military Science.
FREDERICK A. OSBORN, PH. B.,
Professor of Physics.
WILLIAM J. MEREDITH, A. B.,
Associate Professor of Rhetoric.
JAMES E. GOULD, PH. B.,
Assistant Professor of Mathematics.
THOMAS W. LOUGH, A. B.,
Assistant Professor of Chemistry.
DAVID KELLY, A. M.,
Assistant Professor of Physics.
RUDOLPH E. HEINE, B. S.,
Assistant Professor of Mechanical Engineering.

Other Instructors.

OTTILIE G. BOETZKES, A. M.,
Instructor in Modern Languages.
HENRY G. KNIGHT, A. B.,
Instructor in Chemistry.
ANNA HUBERT, A. B.,
Instructor in German.
GEORGE B. MOREHOUSE,
Assistant in Chemistry.
HARRY W. BOETZKES,
Assistant in Surveying.
JESSE A. JACKSON,
Assistant in Drawing.
HON. FRED RICE ROWELL, A. B.,
Lecturer on Mining Law.

PURPOSE.

The School of Mines was established to give thorough technical education to those desiring to become mining engineers, metallurgists, and geologists, and thus to supply the demand for men competent to develop the resources of the state.

There are five courses: (1) mining engineering; (2) mining engineering with geology as an alternative; (3) metallurgical engineering; (4) short course in mining engineering; (5) course in mining for prospectors.

The course in mining engineering with geology as an alternative, contains more geology, biology, and electives than the other courses. It is designed for those students who wish to fit themselves for geological surveys or for reporting upon the economic geology of mining districts.

ADMISSION.

The requirements for admission to the four years' courses are the same as for the College of Engineering (see page 93).

COURSES OF THE SCHOOL OF MINES.

The Roman numerals indicate various subjects in each department which are described in full under the departmental statements, page 113 and following. The Arabic numerals indicate the number

of hours a week a subject is given. Where no Arabic numerals appear, 3 is understood.

I. Course in Mining Engineering.

Fall Term.	*Winter Term.*	*Spring Term.*
	FRESHMAN YEAR.	
Mathematics I, a, 4.	Mathematics II, a, 4.	Mathematics III, a, 4.
Rhetoric I.	Rhetoric II.	Rhetoric III.
Chemistry I.	Chemistry II.	Chemistry III.
Drawing I.	Drawing II.	Surveying I, 4.
German VII, French VII, or Spanish IV.	German VIII, French VIII, or Spanish V.	German IX, French IX, or Spanish VI.
Shopwork I.	Shopwork II.	Shopwork III.
Military Science.	Military Science.	Military Science.
	SOPHOMORE YEAR.	
Mathematics VII, 5.	Mathematics VIII, 5.	Mathematics IX, 5.
Chemistry VII.	Chemistry VIII.	Chemistry IX.
Geology I.	Geology II.	Geology III.
Physics I.	Physics II.	Physics III.
Surveying II.	Drawing IV.	Surveying III.
Military Science.	Military Science.	Military Science.
	JUNIOR YEAR.	
Mechanics I, 4.	Mechanics II, 4.	Mechanics III, 4.
Geology IV.	Geology V.	Geology VI.
Descriptive Geom. I.	Descr. Geom. II.	Descr. Geom. III.
Machine Design I.	Machine Design II.	Machine Design III.
Metallurgy I.	Metallurgy II.	Metallurgy IV.
	SENIOR YEAR.	
Hydraulics I, 4.	Hydraulics II, 4.	Metallurgy III.
Political Science I.	Political Science II.	Political Science III.
Mining I.	Mining II.	Mining III.
Mining V.	Mining IV, 1.	Elective.
Elective.	Geology X.	Elective.
	Elective.	

II. Course in Mining Engineering, with Geological Alternative.

Fall Term.	*Winter Term.*	*Spring Term.*
FRESHMAN YEAR.		
Mathematics I, a, 4.	Mathematics II, a, 4.	Mathematics III, a, 4.
Rhetoric I.	Rhetoric II.	Rhetoric III.
Chemistry I.	Chemistry II.	Chemistry III.
Drawing I.	Drawing II.	Surveying I, 4.
German VII, French VII, or Spanish IV.	German VIII, French VIII, or Spanish V.	German IX, French IX, or Spanish VI.
Shopwork I.	Shopwork II.	Shopwork III.
Military Science.	Military Science.	Military Science.
SOPHOMORE YEAR.		
Mathematics VII, 5.	Mathematics VIII, 5.	Mathematics IX, 5.
Chemistry VII.	Chemistry VIII.	Chemistry IX.
Geology I.	Geology II.	Geology III.
Physics I.	Physics II.	Physics III.
Surveying II.	Drawing IV.	Surveying III.
Military Science.	Military Science.	Military Science.
JUNIOR YEAR.		
Geology IV.	Geology V.	Geology VI.
Geology VII.	Geology VIII.	Geology IX.
Desc. Geom. I.	Descr. Geom. II.	Desc. Geom. III.
Metallurgy I.	Metallurgy II.	Metallurgy IV.
Zoology I.	Zoology II.	Zoology III.
SENIOR YEAR.		
Geology X.	Geology XI.	Geology XII.
Mining I.	Mining II.	Mining III.
Geology XIII.	Mining IV.	Metallurgy III.
Political Science I.	Political Science II.	Political Science III.
Elective.	Elective.	Elective.
Mining V.		

III. Course in Metallurgical Engineering.

Fall Term.	*Winter Term.*	*Spring Term.*
	FRESHMAN YEAR.	
Mathematics I, a, 4.	Mathematics II, a, 4.	Mathematics III, a, 4.
Rhetoric I.	Rhetoric II.	Rhetoric III.
Chemistry I.	Chemistry II.	Chemistry III.
Drawing I.	Drawing II.	Surveying I, 4.
German VII. / French VII, or / Spanish IV.	German VIII, / French VIII, or / Spanish V.	German IX. / French IX, or / Spanish VI.
Shopwork I.	Shopwork II.	Shopwork III.
Military Science.	Military Science.	Military Science.
	SOPHOMORE YEAR.	
Mathematics VII, 5.	Mathematics VIII, 5.	Mathematics IX, 5.
Chemistry VII.	Chemistry VIII.	Chemistry IX.
Geology I.	Geology II.	Geology III.
Physics I.	Physics II.	Physics III.
Physics IV.	Physics V.	Physics VI.
Military Science.	Military Science.	Military Science.
	JUNIOR YEAR.	
Mechanics I, 4.	Mechanics II, 4.	Mechanics III, 4.
Geology IV.	Geology V.	Geology VI.
Desc. Geom. I.	Desc. Geom. II.	Desc. Geom. III.
Machine Design I.	Machine Design II.	Machine Design III.
Metallurgy I.	Metallurgy II.	Metallurgy IV.
	SENIOR YEAR.	
Hydraulics I, 4.	Hydraulics II, 4.	Hydraulics III, 4.
Mining I.	Mining II.	Mining III.
Metallurgy X.	Metallurgy V.	Metallurgy III.
Metallurgy VII.	Geology X.	Metallurgy VI.
Political Science I.	Political Science II.	Political Science III.
	Mining IV, 1.	

Summer Work.

Every mining student who is a candidate for a degree is required to spend a portion of his summer vacations in

actual work in a mine, mill, or smelter. An exhaustive report of such work must be presented before the middle of the following fall term. Students in Course II may present geological field work as a partial substitute, while in Course III, work in reduction plants will be required.

DEGREE.

The four years' courses of the School of Mines lead to the degree of Bachelor of Science (B. S.) in mining engineering.

Degree with Honors.

A degree with honors will be conferred upon any student who shall have attained a grade of A in technical subjects and has never been conditioned in any college subject.

Advanced Degree.

The master's degree in mining, namely, Engineer of Mines (E. M.) will be conferred upon graduates in mining who have pursued satisfactorily one year of graduate work in the University, or give evidence of having been engaged in responsible work for three years in practical mining, and present a satisfactory thesis.

IV. Short Course in Mining Engineering.

This course is designed for students who have had a common school education, and more or less experience in mining work. It affords such persons an opportunity to take studies that will better fit them for their work.

Fall Term.	*Winter Term*	*Spring Term.*
	FIRST YEAR.	
Algebra.	Plane Geometry.	Trigonometry.
Geology I.	Geology II.	Geology III.
Chemistry I.	Chemistry II.	Chemistry III.
Drawing I.	Drawing II.	Surveying I, 4.
Shopwork I.	Shopwork II.	Metallurgy IV.
	SECOND YEAR.	
Surveying II.	Drawing IV.	Surveying III.
Geology IV.	Geology V.	Geology VI.
Metallurgy I.	Chemistry IV.	Metallurgy V.
Mining I.	Mining II and IV.	Mining III.
Physics I.	Physics II.	Physics III.

V. Course in Mining for Prospectors.

During the winter term, from January 1st to April 1st, the instructors in mining engineering offer a course for the benefit of mature persons who are interested in prospecting and mining. Admission to the classes is without examination. The subjects are suited to the needs of those who wish sufficient information in geology, mineralogy, chemistry, and related subjects to take up practical work with a proper understanding of it. Instruction is given by lectures, laboratory exercises, and visits to reduction plants. The advantages of the University laboratories and libraries are open to all. The past experience and future aims of each student are taken into consideration, and the character of his work arranged accordingly. For students who return a second year, a special course is arranged in continuation of their previous work.

For the purely lecture subjects no fees are charged. In the laboratory subjects sufficient charges are made to cover

the cost of materials actually consumed. In subject I a fee of five dollars is charged, and a deposit of five dollars is required to cover the cost of apparatus which may be broken; in subject III a fee of five dollars is charged, and a deposit of five dollars required as a surety for the return of the blowpipe outfit and other apparatus loaned; in subject IV a fee of ten dollars is charged, and a deposit of five dollars required to cover breakage of apparatus. All fees must be paid, and all deposits made, at the beginning of each subject.

SUBJECTS.

I. General Chemistry and Qualitative Analysis.—Laboratory practice in the determination of the common elements. (Three lectures a week, and two afternoons.)

II. Geology.—Lectures on the elements of geology, the common varieties of rocks, metalliferous vein and ore deposits, etc. (Three times a week.)

III. Mineralogy.—Instruction and practice in blowpipe analysis, followed by lectures upon the common minerals, with practice in the identification of minerals by field tests. (Three times a week.)

IV. Furnace Assaying.—Lectures and laboratory work. Lectures on sampling, preparing ores for assay, furnaces, fuels, and reagents. Ores of various metals are studied, with reference to the nature of fluxes required for their assay. The laboratory work includes the preparing and testing of reagents, and the assaying of ores, furnace and mill products. (One lecture and three afternoons a week.)

V. General Methods of Mining.—Lectures on excavating, blasting, tunneling, and shaft sinking, supporting excavations, mine transportation, pumping, ventilation, and hydraulic mining. (Twice a week.)

VI. Mining Law.—A series of lectures on the mining laws of the United States. (Once a week.)

The following subjects are intended to supplement those given above and are offered for the benefit of those students who wish to acquaint themselves more fully with these subjects.

VII. Advanced Mineralogy.—A continuation of descriptive mineralogy with much practice in determinative work. (Prerequisite, III.)

VIII. Quantitative Analysis.—Gravimetric and volumetric analysis. Talbot's and Hartley's Quantitative Analysis. (Two afternoons a week. Prerequisite, I.)

IX. Wet Assaying.—The assaying of bullion for fineness. The assaying of copper by various methods. The amalgamation assay. (Prerequisite, I. To be taken with VII.)

X. Mining.—Ore dressing. Lectures upon the treatment of ores underground and at surface; hand picking, crushing, sizing, separating, vanning, jigging, etc. The stamp battery and amalgamation processes. The receiving, sampling, and purchasing of ores at smelters.

XI. Economic Geology.—A study of the origin and extent of metalliferous veins and ore deposits; theories of the accumulation of gas and oil; varieties of coal, and localities of coal fields; building stones and other mineral products of use in the arts and of commercial importance. Lectures, with Kemp, Tarr, and Phillips as references.

(Three times a week throughout the year. Prerequisite, III. To be taken with VII.)

STATE ASSAYING.

Owing to the constant demand which is made upon the department of assaying for ascertaining the value of various minerals, it has been thought well to adopt the following scale of prices, which will govern all future work. The fees are intended to cover only the cost of materials used in making the assays, and are expended in purchasing new supplies.

Gold	$1 00
Gold and silver	1 00
Silver	50
Lead	50
Copper	2 00
Tin	2 00
Zinc	2 00
Qualitative analysis	$2 00 to 5 00
Quantitative analysis, for each element determined, $2.00, or a complete analysis	$5 00 to 25 00

THE SCHOOL OF PHARMACY.

THE FACULTY.

FRANK P. GRAVES, PH. D., LL. D.,
PRESIDENT.

HORACE G. BYERS, PH. D., DEAN,
Professor of Chemistry.

HOMER R. FOSTER, M. S.,
Professor of Botany.

CHARLES W. VANDER VEER,
Professor of Physical Culture.

TREVOR C. D. KINCAID, A. M.,
Professor of Zoology.

ASA T. ABBOTT, LIEUT. U. S. A. (*retired*),
Professor of Military Science.

WILLIAM J. MEREDITH, A. B.,
Associate Professor of Rhetoric.

MARTHA L. HANSEE, A. M.,
Associate Professor of Latin.

THOMAS W. LOUGH, PH. G., A. B.,
Assistant Professor of Pharmacy.

Other Instructors.

HENRY G. KNIGHT, A. B.,
Instructor in Chemistry.

WILLIAM C. HASTINGS, B. S., M. D.,
Instructor in Materia Medica and Microscopy.

GEORGE B. MOREHOUSE,
Assistant in Chemistry.

PURPOSE.

The School of Pharmacy is designed to furnish such training as will fit the student for practical work and satisfy the requirements of the State Board of Pharmacy.

ADMISSION.

Students at least seventeen years of age will be admitted to the School of Pharmacy upon the presentation of a high school diploma or evidence of equivalent mental training.

ADVANCED STANDING.

Advanced standing may be secured by students of other Schools of Pharmacy upon presentation of certificates of work done.

COURSES OF THE SCHOOL OF PHARMACY.

The Roman numerals indicate various subjects in each department which are described in full under the departmental statements, page 113 and following. The Arabic numerals indicate the number of hours a week a subject is given. Where no Arabic numerals appear, 3 is understood.

Regular Course.

Fall Term	*Winter Term.*	*Spring Term.*
	JUNIOR YEAR.	
Pharmacy I, 5.	Pharmacy II.	Pharmacy III.
Chemistry I, 6.	Chemistry II, 6.	Chemistry III, 6.
Botany.	Botany.	Botany.
Physiology.	Physiology.	Physiology.
Latin.	Latin.	Latin.
	SENIOR YEAR.	
Materia Medica I.	Materia Medica II.	Materia Medica III.
Histology.	Histology.	Pharmacognosy.
Pharmacy IV.	Pharmacy V.	Pharmacy VI.
Chemistry IV.	Chemistry V.	Chemistry VI, 4.
Pharmaceutical Jurisprudence.	Urinary Analysis.	Toxicology.

Advanced Course.

FIRST YEAR.

Rhetoric I.	Rhetoric II.	Rhetoric III.
Materia Medica.	Materia Medica.	Materia Medica.
Physics I.	Physics II.	Physics III.
Chemistry VII.	Chemistry VIII.	Chemistry IX.
Mathematics I.	Mathematics II.	Mathematics III.

SECOND YEAR.

German I.	German II.	German III.
History of Chemistry.	Assaying.	Water and Gas Analysis.
Geology I.	Geology II.	Geology III.
Physiological Chemistry.	Physiological Chemistry.	Industrial Chemistry.
Dispensing.	Dispensing.	Dispensing.

METHODS.

The lectures of the course are supplemented by frequent quizzes and a large amount of laboratory work. It is expected that the students will devote the whole of their time to the subject, if they desire to complete the course in two years. Students who work in drug stores or other places, will find it advisable to devote more than two years to the course.

DEGREES.

The satisfactory completion of the two years' course leads to the degree of Graduate in Pharmacy (Ph. G.), provided that the other conditions for graduation mentioned below are fulfilled. The Advanced Course leads to the degree of Pharmaceutical Chemist (Ph. C.)

Graduation.

To receive the degree of Graduate in Pharmacy and a diploma which will entitle him to a certificate from the State Board of Pharmacy, a student must fulfill the following conditions:

I. He must be of good moral character.

II. He must have had two years of practical experience in pharmaceutical work, in addition to that carried on while at the University.

III. He must have completed all the subjects offered in the two years' course and have passed the examinations at the close of each with a grade of not less than B.

IV. If he completes the course before having had the required outside experience, he will be granted his degree when that condition is fulfilled, provided he passes an examination in pharmacy, materia medica, and chemistry.

The degree of Pharmaceutical Chemist will be conferred upon all who shall have completed the four years' course.

Degree with Honors.

The degree of Graduate in Pharmacy with honors is conferred upon students of the School of Pharmacy who maintain an average of A in all their studies, if recommended by the Dean for this distinction.

DEPARTMENTS OF INSTRUCTION.

GREEK.

PROFESSOR HAGGETT AND ASSOCIATE PROFESSOR HANSEE.

The department aims to treat the Greek language as an invaluable discipline of the mind, and as an indispensable foundation for a scholarly knowledge of the languages and literatures, not only of the ancient, but of the modern European world.

In the freshman year special attention is given to a mastery of the rudiments of the language, to etymology, syntax, the composition of words, and the structure of sentences. The grammar is carefully reviewed throughout the year and is accompanied by weekly exercises in translating English into Greek.

As the student advances, more attention is given to style and thought, and to the life and literature of the Hellenic people. An extensive reading of Greek authors is undertaken. It is the aim of the department, however, to secure not only facility in reading, but also, as far as possible, a true appreciation of the style and spirit of the Greek writers, and an acquaintance with the wisdom and knowledge embodied in their works.

SUBJECTS.

I, II, III.—*Elementary.*—Graves and Hawes's A First Book in Greek. Drill in inflections and constructions. Goodwin and White's Xenophon's Anabasis, Book I. Exercises in translating English into Greek. [Three times a week throughout the year. No credit allowed, if presented for entrance.]

IV, V, VI.—*Xenophon, Homer.*—Xenophon's Anabasis, Books II-IV. Seymour's Iliad of Homer, Books I-III. Woodruff's Greek Prose Composition. Sight translation. [Three

times a week throughout the year. No credit allowed, if presented for entrance. Prerequisite, III.]

VII, VIII, IX.—*Lysias, Homer, Herodotus.*—Morgan's Eight Orations of Lysias. Selected portions of Homer's Odyssey, with study of Homeric poetry and Homeric life. Selections from Herodotus. Biographical, mythological, and historical studies, with themes and exercises. Greek composition. Sight translation. [Three times a week throughout the year. Prerequisite, VI.]

X, XI, XII.—*Dramatists.*—Euripides, Iphigenia among the Taurians. Sophocles, Antigone or Oedipus the King. Aristophanes, Clouds or Frogs. Study of the origin and development of the drama and its scenic representation. [Three times a week throughout the year. Prerequisite, IX.]

XIII, XIV, XV.—*History, Philosophy, Oratory.*—Thucydides, Sicilian Expedition. Plato, Apology and Crito. Demosthenes, Oration on the Crown. Study of Greek historiography, philosophy, and oratory. [Three times a week throughout the year. This course will alternate with X, XI, XII.]

XVI, XVII, XVIII.—*Rapid Reading.*—Lyric poets. Aeschylus, Seven Against Thebes or Agamemnon. Plato, Gorgias or Protagoras. Study of Greek literature in summary, and of Greek social and political institutions. [Three times a week throughout the year. This course is open to juniors and seniors.]

LATIN.

PROFESSOR KANE AND ASSOCIATE PROFESSOR HANSEE.

The subjects announced here are planned for students who have already had four years of training in Latin. It is supposed that this preliminary training has given the student a mastery of Latin forms and inflections, a knowledge of syntax, ability to read Latin correctly, and a vocabulary sufficient to translate simple passages at sight with considerable ease. In these subjects less prominence is given to this technical training and more of the attention is given to Latin as literature and to the study of Roman life and customs.

In the freshman year, however, a systematic survey is taken of syntax and construction, together with practice in writing Latin, which serves as a review and allows a closer observation of the principles underlying syntax than is practical in the earlier work. Other special topics taken up are briefly indicated in the announcements of the subjects.

SUBJECTS.

I, II, III.—*Classical Prose.*—Cicero, De Senectute; Cicero, De Amicitia; Livy, Book XXI. Work in syntax, Latin writing, and sight reading. [Three times a week throughout the year.]

IV, V, VI.—*Classical Poetry and the Drama.*—Ovid, selected portions of the Tristia, Heroides, Amores, Fasti, and Epistulae, and the continuous reading of the Metamorphoses; special topics, Ovid's Life and Times. Horace, Odes and Epodes; special topics, Prosody, Lyric Poetry, and the Services of the Poet Laureate. Plautus, Menaechmi; Terence, Andria; special topics, Roman Drama, Archaic Forms, Syntax and Prosody. [Three times a week throughout the year. Prerequisite, III.]

VII, VIII, IX.—*Letters.*—The letters of Cicero, Pliny, Seneca, and Horace. Special topics, The Familiar Style and its Characteristics, Letter Writing and Private Antiquities, Inside History of the Respective Periods Furnished by the Letters. [Three times a week through the year. Prerequisite, VI.]

X, XI, XII.—*Teachers' Course.*—*Caesar*: Viri Romae, Suetonius' Julius Caesar, Caesar's Bellum Civile. *Cicero*: Viri Romae, Sallust's Catiline, Cicero's Letters. *Vergil*: Ancient Lives of Vergil, Vergil's Eclogues and Georgics. This course is provided especially for those who are preparing to teach Latin in the high school, and is designed to broaden the preparation for teaching Caesar, Cicero, and Vergil. [Three times a week through the year. Prerequisite, IX, or it may be taken with VII, VIII, and IX.]

XIII, XIV, XV.—*Oratory.*—Cicero's Brutus; Tacitus' Dialogus; Quintilian's Institutiones, X and XI. Also, as outside

reading with reports in class, Cicero's De Oratore, Orator, and De Inventione; and the Ad Herrenium. Independent investigation, one subject each term for every student, with thesis at the end of the year. [Three times a week throughout the year. Prerequisite, IX. Work will be outlined in connection with this course, for graduate students who wish to work for the A. M. degree.]

GERMAN.

PROFESSOR REEVES, MISS BOETZKES, AND MISS HUBERT.

The courses in German are designed primarily to give the student an introduction to the literature, as most students will take up this language with a view to using it in connection with professional work, or for the purpose of original investigation in graduate work.

The mind, the eye, the ear, and the tongue are so trained that a student who takes the courses offered in German should gain facility in reading and writing the language, and some experience in speaking. A general knowledge of the literature is also obtained.

SUBJECTS.

I, II, III.—*Elementary.*—Outline of grammar; practice in pronunciation; composition, 150 pages of easy prose; Schiller's Wilhelm Tell. [Three times a week throughout the year. No credit, if presented for entrance.]

IV, V, VI.—*Supplementary.*— These subjects are intended to give special attention to pronunciation and conversation, including the reading of short stories and plays suitable for first year students. [Two times a week throughout the year. No credit, if presented for entrance.]

VII, VIII, IX.—*General Literature.*—Historical selections; history of German literature and standard comedy; selections from representative authors. [Three times a week throughout the year. Prerequisite, III. No credit, if presented for entrance.]

X, XI, XII.—*Selected Work.*—Selections from modern literature; scientific selections; Schiller's Jungfrau von Orleans.

[Two times a week throughout the year. Prerequisite, IX.]

(XIII, XIV, XV.—*German Classics.*—Lessing's Nathan der Weise; Goethe's Hermann und Dorothea; modern German ballads and lyrics; Faust, Part I. [Three times a week throughout the year, in the order indicated. Prerequisite, IX.])

XVI, XVII, XVIII.—*Goethe.*—Faust, Part II; selections from Goethe's prose.

Subjects XIII, XIV, XV, and XVI, XVII, XVIII are given alternate years. Subjects XVI, XVII, XVIII will be offered in 1902-1903.

FRENCH.

PROFESSOR OBER AND MISS BOETZKES.

The aim of this department is to give a knowledge of the history of the French language, and of the literature of different periods, as embodied in the works of the greatest authors. An effort is made also to drill the student of science in such a way that a more immediate acquaintance with the results of scientific investigation abroad shall be brought within his reach.

SUBJECTS.

I, II, III.—*Elementary.*—Outline of essentials in French grammar; exercises in pronunciation; translations from French into English and English into French; reading of easy prose selections, and later of moderately difficult selections from representative writers. [Three times a week throughout the year. No credit, if presented for entrance.]

IV, V, VI.—*Supplementary.*—Dictation and composition; reading at sight; practice in pronunciation. [Two times a week throughout the year. No credit, if presented for entrance.]

VII, VIII, IX.—*Nineteenth Century Authors.*—Literature of the nineteenth century, based on Fortier's Sept Grands Auteurs; study of style and diction. [Three times a week throughout the year. No credit, if presented for entrance. Prerequisite, III.]

X, XI, XII.—*Advanced Study of the Literature.*—History of French literature; copious readings from various authors, es-

pecially from the plays of Corneille, Racine, and Moliere. [Two times a week throughout the year. Prerequisite, IX.]

XIII, XIV, XV.—*Romantic Movement. Lyrics.*—The history of the Romantic movement; selections from Victor Hugo and other writers; French lyrics. [Two times a week throughout the year. Prerequisite, IX.]

XVI.—*Scientific.*—Selections on scientific subjects and in modern magazines. [Two times a week throughout the year. Prerequisite, IX.]

SPANISH.

PROFESSOR OBER.

In this department considerable time is given to colloquial Spanish. The close relations of the United States with Central and South America, and the various lands where Spanish alone is spoken, have increased the value of a speaking knowledge of this language.

While due attention is given to the rich but little known literature of the Golden Age, and the varied writings of the present century, full opportunities are also offered to acquire a knowledge of practical and commercial Spanish.

SUBJECTS.

I, II, III.—*Elementary.*—Lessons in Spanish on everyday topics; training of the ear and tongue. Essentials of Spanish grammar; reading from some modern Spanish author, Valera, Alarcon, or Pardo Bazan. [Three times a week throughout the year.]

IV, V, VI.—*Practical.*—Business correspondence, commercial terms and conversation; readings selected from Spanish newspaper and magazine articles of the day. [Three times a week throughout the year. Prerequisite, III.]

VII, VIII, IX.—*Literary.*—Knapp's Spanish readings. Spanish is made as far as possible the medium of instruction. Lectures on Spanish literature. [Three times a week throughout the year. Prerequisite, III.]

Subjects IV, V, VI, and VII, VIII, IX are given alternate years.

X, XI, XII.—*Advanced.*—Literature of the sixteenth and seventeenth centuries; Lope de Vega; Calderon; the "Auto-Sacramental." Early Spanish; poems of the Cid; Spanish literature of the fifteenth century. [Two times a week throughout the year. Prerequisite, VI or IX.]

ENGLISH.

PROFESSORS PRIEST AND PADELFORD, AND ASSOCIATE PROFESSOR MEREDITH.

RHETORIC AND ORATORY.

PROFESSOR PRIEST AND ASSOCIATE PROFESSOR MEREDITH.

The objects sought for in the courses here outlined are: (1) to secure a skillful use of English in writing and an appreciation of it in literature; and (2) to develop skill, power, and readiness in oratory and debate. To these ends there will be much writing and frequent practice in prepared and impromptu speaking.

SUBJECTS.

I, II, III.—*English Composition.*—Elements of effective writing in prose, based on practical composition and a study of the best models. Required of freshmen in all courses. [Four sections; three times a week throughout the year.]

IV, V, VI.—*Oral Expression*—Reading and declamation with particular reference to the analysis of emphasis, and to the interpretation of thought and feeling by voice and gesture. [Two times a week throughout the year. Prerequisite, III.]

VII, VIII, IX.—*Oratory.*—Study of British and American orators. Each member of the class is required to present an original oration each term. [Three times a week throughout the year. Prerequisite, III.]

X, XI, XII.—*Forensics.*—Practice in argumentation and formal debating. [Three times a week throughout the year. Prerequisite, VI.]

XIII, XIV, XV.—*Oratorical Seminary.*—[Once a week throughout the year. Prerequisite, VI.]

ENGLISH LANGUAGE AND LITERATURE.

PROFESSOR PADELFORD.

The work in literature lays emphasis rather more upon forms, such as the drama, the epic, and the lyric, than upon periods, although the importance of the historical study of literature is not ignored. The courses in language are designed to give a knowledge of the development of our language from the earliest monuments to the time of Shakespeare.

SUBJECTS.

I, II, III.—*Shakespeare.*—Critical study of a few plays. Special attention to the laws and technique of the drama. [Three times a week throughout the year. Prerequisite, Rhetoric III.]

IV, V, VI,—*The Poetry of Browning and Tennyson.*—Study of selected poems, supplemented by comparison with poems of Wordsworth, Shelley, and Keats.—[Three times a week throughout the year. Prerequisite, III.]

VII, VIII, IX.—*Epic Poetry.*—The first half of the year is devoted to Paradise Lost, and this is followed by the study either of the Iliad or of the Odyssey. Special attention to the nature of epic poetry. [Prerequisite, III. Not given in 1902-03.]

X, XI, XII.—*Sixteenth and Seventeenth Century Lyrics.*—Study of the poems of a few representative lyrists. Special attention to the nature of the lyric. [Twice a week throughout the year. Prerequisite, III. Not given in 1902-03.]

XIII, XIV, XV.—*Eighteenth and Nineteenth Century Essayists.*—The writings of a few of the representative essayists are considered. Special attention to the technique of the essay. [Twice a week throughout the year. Prerequisite, III.]

XVI, XVII, XVIII.—*The English Novel.*—An historical course beginning with the story writers of the Elizabethan period, and following the development of the novel through the eighteenth and the early part of the nineteenth century. [Three times a week throughout the year. Prerequisite, III, and one other course.]

XIX, XX.—*Old English.*—Lectures and recitations upon the language, with readings of selections from prose and poetry.

Special attention to the development of the language. [Three times a week; fall and winter terms. Prerequisite, III.]

XXI.—*Middle English.*—Lectures and recitations upon the language, with readings of selections from prose and poetry. Special study of Chaucer. [Three times a week; spring term. Prerequisite, XX.]

GRADUATE SUBJECTS.

XXII, XXIII,, XXIV.—*Theories of Poetry.*—A course in the theories of poetry in general, and in the principles of criticism applicable to its various departments, as the epic, dramatic, and lyric. Such works as Aristotle's Poetics, Lessing's Laokoon, Horace's Ars Poetica, and Sidney's Defense of Poesy are studied critically. Masterpieces are read to test the principles advanced in theoretic works.

XXV, XXVI, XXVII.—*Historical English Prosody.*—A consideration of the metres used in our poetry from Old English times to the present. Schipper's Englische Metrik is used as a guide. [Not given in 1902-03.]

PHILOSOPHY.

PROFESSOR COLEGROVE.

The aim in the department of philosophy is to secure accurate scholarship, to train the student to think, and to stimulate a desire for investigation and original research. Attention is given to experimental psychology, and the results of the latest investigation are carefully studied. The work in logic consists of a thorough drill in inductive and deductive reasoning, and the purpose is to enable the student to detect fallacies readily.

A critical knowledge of the history of philosophy is made a basis for discussions of the present trend and modes of thought.

The leading ethical theories are considered in the light of scientific principles, and of their application to individual and social morality.

SUBJECTS.

I, II, III.—*Elementary Psychology and Logic.*—James's Briefer Psychology; lectures upon the physiology of the

senses; experiments. Logic, Jevons-Hill; supplementary discussions and analysis of arguments. [Three times a week throughout the year.]

IV, V, VI.—*Advanced Psychology.*—Memories; evolution; heredity; instinct; imaginations; individual psychology; hypnotism; telepathy; study of childhood and adolescence. Lectures. [Three times a week throughout the year. Prerequisite, III.]

VII, VIII, IX.—*Advanced Psychology and Ethics.*—Psychiatry; ethical theories and their application; comparative and genetic psychology. [Three times a week throughout the year. Prerequisite, III.]

X, XI, XII.—*History of Philosophy.*—Lectures and textbook (Weber). [Three times a week throughout the year. Prerequisite, III.]

XIII, XIV, XV.—*Modern Psychology.*—Lectures upon German psychology; a review of the life and writings of Charles Darwin; required reading in French and German of current psychological literature. [Three times a week throughout the year. Prerequisite, III.]

PEDAGOGY.

PROFESSOR YODER.

The work in this department gives a knowledge of the child on the one side and a training in the presentation on the other. It is not academic, and should be undertaken only after thorough preparation in some other department of the University.

The subjects are arranged as follows:

REQUIRED.

1. The Child, 4 hours weekly, for the year..... 9 credits
2. The History of Education, 2 hours weekly, for the year ..... 6 credits
3. The Philosophy of Education, 1 hour weekly, for the year ..... 3 credits
4. The Course of Study, 3 hours weekly, for the year. 9 credits

Major requirement .....27 credits

ELECTIVE.

5. The Course of Study, 2 hours weekly, for the year. 6 credits
6. Seminar.—Harris Club, 1 hour weekly, for the year ..... 3 credits
7. Seminar.—Current Events, 2 hours weekly for the year ..... 3 credits

Elective ....12 credits

These subjects are open to junior, senior, and mature special students. Prerequisites: zoology, one year; psychology, one year; sociology, one term; and proficiency in English. Students are advised to select some subject which they wish to teach and to make careful preparation before beginning the work in pedagogy.

SUBJECTS.

I, II, III.—*The Child.*—Fall: The physical growth of the child. Winter: Mental growth with special emphasis upon adolescence. The presentation of ten adolescent characters from literature. Spring: The hygiene of growth.

[One lecture, one recitation from Chamberlain's The Child, and one laboratory period, each week throughout the year.]

IV, V, VI.—*The History of Education*—Fall: Laurie's Pre-Christian Education; Monroe's Source Book of the History of Education for the Greek and Roman Period. Winter: Quick's Educational Reformers; Educational Classics. Spring: Boone's History of Education in the United States; Butler's History of Education in the United States. Educational reports. [Two hours a week throughout the year.]

VII, VIII, IX.—*The Philosophy of Education.*—A course of lectures with assigned readings and reports; an attempt to formulate the principles underlying general education. Fall: The institutional and individualistic forces. Winter: The laws of expression. Spring: Social pedagogy. [Three times a week throughout the year.]

X, XI, XII.—*The Course of Study.*—Section A. The curriculum of secondary schools. Fall: Languages; history; and biography. Winter: Mathematics; manual training; art. Spring: The sciences. [Three times a week throughout the year.]

Section B. The course of study of the elementary schools. Fall: English; history; great ethnic stories and heroes. Winter: Arithmetic; elementary algebra; drawing; music. Spring: Nature study; physiology; geography. [Two hours a week throughout the year.]

Both sections will study methods of teaching in the Seattle schools, with occasional visits to other schools.

XIII, XIV, XV.—*Seminar.*—W. T. Harris Club; open to all students interested in teaching. Educational problems are selected by the instructor and a committee of the club. [One hour a week throughout the year.]

XVI, XVII, XVIII.—*Seminar.*—Current events. During 1902-03 this work will consist of magazine readings, reports, and addresses by invited speakers. It is offered with a view to enlarging the general education of prospective teachers. [Two hours a week throughout the year; one hour credit.]

An advanced course in general pedagogy will be offered on Saturdays, if the teachers in and near Seattle wish it.

POLITICAL AND SOCIAL SCIENCE.

PROFESSOR SMITH.

The work in this department emphasizes the duties and responsibilities of citizenship. Its object is to inculcate worthy social ideals and lay the basis for sound and independent thinking on political and economic questions.

SUBJECTS.

I.—*Elements of Political Economy.*—Lectures. [Three times a week; fall term.]

II, III.—*Economic Theory.*—Marshall's Principles of Economics, volume I. [Three times a week; winter and spring terms. Prerequisite, I.]

IV, V, VI.—*Industrial Problems.*—Competition; labor; monopolies and trusts; socialism; taxation. Lectures. [Three times a week throughout the year. Prerequisite, I.]

VII.—*Elements of Sociology.*—Lectures. [Three times a week; fall term.]

VIII.—*Money and Banking.*—Lectures. [Three times a week; winter term. Prerequisite, I.]

IX.—*Seminary in Economics.*—[Time and credit to be arranged; spring term.]

X, XI, XII.—*Constitutional Government.*—A comparative study of the American government, federal, state, and municipal; its origin, spirit, and relation to the democratic movement of modern times. Lectures. [Three times a week throughout the year.]

HISTORY.

PROFESSOR MEANY.

Stress is laid upon the use of the best authorities, and upon frequent reference to historical sources, whenever available. The library is being constantly enriched in the lines of history. A special library, known as the Frederic James Grant Memorial Library of American History, has been greatly increased within the last year. Students are also trained in methods of history, receiving practice in the collection and use of materials for local history, as well as in the preparation of theses in the broader fields.

The broadened scope of this department requires that the work be alternated from year to year. During the past year attention was confined to the several courses devoted to American history, and during the year 1902-03 the work will comprise the European subjects, which are IV, V, and VI; VII and VIII; IX; X and XI; XII; XVI; and XXI.

SUBJECTS.

I.—*The American Colonies.*—Discussion of the period from 1492 to 1750. Collateral reading and frequent papers required. Lectures. The Colonies, by Reuben Gold Thwaites, used as a guide. [Three times a week; fall term.]

II.—*American Revolution and Constitution.*—Discussion of the period from 1750 to 1829. Collateral reading and frequent papers required. Lectures. Formation of the Union, by Albert Bushnell Hart, used as a guide. [Three times a week; winter term.]

III.—*Slavery and Civil War.*—Discussion of the period from 1829 to 1889. Collateral reading and frequent papers required. Lectures. Division and Reunion, by Woodrow Wilson, used as a guide. [Three times a week; spring term.]

IV, V, VI.—*English People.*—From prehistoric times to the close of Victoria's reign. Collateral reading, papers, and lectures. Text: Green's History of the English People. [Three times a week throughout the year.]

VII, VIII.—*Europe in the Middle Ages.*—Emerton's Introduction to the Middle Ages and his Medieval Europe are used as a basis. [Three times a week; fall and winter terms.]

IX.—*Modern Europe.*—Schwill's Modern Europe as a basis. [Three times a week; spring term.]

X, XI.—*English Constitution.*—Macy as text, with collateral readings and reports. [Three times a week; fall and winter terms. Prerequisite, III, or VI.]

XII.—*French Revolution.*—Lectures, collateral reading, and theses. Gardiner used as a guide. [Three times a week; spring term. Prerequisite, III or VI.]

XIII, XIV, XV.—*Northwestern History.*—From the earliest voyages of discovery to the settlement and organization of the territories. Lectures. Theses on assigned topics. [Two times a week throughout the year.]

XVI.—*Modern European Statesmen.*—Lectures on the lives of the most prominent statesmen of modern Europe. [Open to all. Upper classmen may obtain credit by arranging for collateral work with the instructor. Two times a week; spring term.]

XVII.—*Spain in America.*—A study of the rise and fall of Spanish power in the new world and an outline of the history of the Spanish-American republics. Lectures and theses. [Three times a week; fall term.]

XVIII, XIX.—*Development of the Pacific.*—History of the countries bordering upon the Pacific ocean, with special reference to the changes now in process of development. Lectures, collateral reading, and theses. [Two times a week; fall and winter terms.]

XX.—*Makers of the Nation.*—Lectures on the lives of Washington, Franklin, Jefferson, Jackson, Clay, Webster, Lincoln, Grant, Lee, and others. [Open to all students, but without credit. Upper classmen may obtain credit by arranging work with the instructor. Two times a week; spring term.]

XXI.—*Saturday Seminars for Teachers.*—Classes will be organized for Saturday morning work for the benefit of public school teachers or any others qualified to pursue the studies. Prospective members of these seminars will assemble at 10:20 a. m., on Saturday, September 27, 1902, when they may elect the work to be followed, choosing from such subjects as English Constitution, French Revolution, Makers of the American Nation, and Local or Northwestern History. [Credit given for completed work.]

CHEMISTRY.

PROFESSOR BYERS, ASSISTANT PROFESSOR LOUGH, MR. KNIGHT, AND MR. MOREHOUSE.

The instruction in this department is designed to satisfy as far as possible the requirements of those students who desire to study chemistry as a means of culture and as a necessary complement of a liberal education. At the same time it is realized that the subject is eminently practical, and hence it is the desire of those in charge to guide the student so that he may fit himself for practice along those lines in which chemistry has become an applied science.

SUBJECTS.

I, II, III.—*General Inorganic.*—Experimental lectures; laboratory work on selected illustrative experiments, leading to qualitative analysis during winter and spring terms. Remsen's Advanced Course; Smith's Laboratory Manual; Notes on Qualitative Analysis. [Two lectures and four laboratory hours a week throughout the year. Credit, three term hours. Prerequisite, high school course in chemistry from accredited high school.]

PROFESSOR BYERS, ASSISTANT PROFESSOR LOUGH, AND MR. KNIGHT.

IV, V, VI.—*Organic.*—A study of the typical compounds of carbon, organic preparations, and practical study of important compounds. Remsen's Organic Chemistry, and Orndorff's Laboratory Manual. [Three lectures and four laboratory hours a week throughout the year. Credit, four term hours.]

PROFESSOR BYERS AND ASSISTANT PROFESSOR LOUGH.

VII.—*Qualitative Analysis.*—Lectures on theory of solution, and laboratory work in acid analysis and systematic qualitative work. [Six laboratory hours and one lecture a week; fall term. Credit, three term hours.]

PROFESSOR BYERS AND MR. KNIGHT.

VIII, IX.—*Quantitative Analysis.*—Gravimetric and volumetric; Talbot's Quantitative Analysis. [Six laboratory hours and one lecture a week; winter and spring terms. Credit, three term hours. Prerequisite, VII.]

PROFESSOR BYERS AND ASSISTANT PROFESSOR LOUGH.

X, XI, XII.—*Advanced Organic.*—Organic analysis and preparations. Gatterman's Practical Methods. [Nine laboratory hours a week throughout the year. Prerequisite, VI. Credit, three term hours.] PROFESSOR BYERS.

XIII, XIV, XV.—*Advanced Quantitative Analysis.*—Complete analysis of ores. [Nine laboratory hours a week throughout the year. Prerequisite, IX. Credit, three term hours.]
PROFESSOR BYERS.

XVI.—*Industrial.*—Lectures and recitations on the processes of the chemical arts and industries. [Three lectures a week; spring term. Prerequisite, III. Credit, three term hours.]
PROFESSOR ROBERTS.

XVII.—*Original Investigation.*—Original investigation; accompanied by lectures on theoretical chemistry. [Open only to students who have followed both organic and inorganic subjects for at least three years. Credit to be arranged.]
PROFESSOR BYERS.

XVIII.—*History.*—Lectures on the history of the development of chemistry with assigned readings. [Given only on alternate years, and open to those in, or having completed, their third year in chemistry. Three lectures a week during the fall term. Credit, three term hours.]

PROFESSOR BYERS.

PHYSICS.

PROFESSOR OSBORN AND ASSISTANT PROFESSOR KELLY.

The instruction in this department is designed to meet the needs of three different classes of students: First, those who desire to complete a liberal education or to undertake the subject for its disciplinary value; second, those who wish to pursue it as a preparation for the engineering professions; and, lastly, those who intend, for the purpose of teaching or investigation, to make the study of physics their life work.

The method is largely experimental. The student is expected to devote about half of his time to obtaining experimental results in the laboratory. The remainder of his time, for the first two courses, is occupied in attending lectures upon demonstration experiments and the theory of the subject and in mastering principles in text-book and lecture.

SUBJECTS.

I, II, III.—*General and Experimental Physics.*—Heat, mechanics, sound, light, electricity, and magnetism. This course is fundamental and is designed to meet the needs of students preparing for the applications of physics, as well as those students who desire a general training in the subject. [Two lectures and two periods in the laboratory a week throughout the year. Three credits a term. Open to all students who have taken preparatory physics and have a working knowledge of algebra and trigonometry.]

IV, V, VI.—*General and Experimental Physics.*—Supplementing I, II, III by greater detail in experimental study and philosophical explanation. [Two lectures and two laboratory periods a week throughout the year. Three credits a term.]

VII, VIII, IX.—*Electricity and Magnetism.*—Mathematical theory of electricity. For engineering students and those who desire an introductory course. [Three times a week. Prerequisites, Physics VI, and Calculus.]

X, XI, XII.—*Electrical Measurements.*—Tests of electrical instruments and the determination of various electrical constants. Photometric and electrical tests of lamps. Designed to accompany VII, VIII, IX. [Nine laboratory hours a week. Credit, three term hours.]

XIII, XIV, XV.—*Advanced Experimental Physics.*—This work is intended to familiarize the student with the better class of measurements. [Nine hours in the laboratory a week throughout the year. Three credits a term.]

XVI, XVII, XVIII.—*Theoretical Physics.*—Elements of mechanics, hydrodynamics, elasticity, capillarity, kinetic theory of gases, heat, conduction, wave motion, sound, light, electricity, and magnetism. [Three times a week throughout the year. Prerequisite, a knowledge of calculus.]

XIX.—*Light.*—Lectures upon the wave theory, diffraction, interference, polarization, etc. [Three lectures a week; fall term.]

XX.—*Heat.*—A series of lectures upon the theory of heat, including the principal phenomena and the elements of thermodynamics, for students wishing a more advanced course than is given in general physics. [Three lectures a week; winter term.]

XXI.—*Molecular Physics.*—Kinetic theory of gases, liquids and solids, elasticity, capillarity, theory of crystalline formation, etc. [Three lectures a week; spring term.]

XXII.—*Investigation.*—Some special problem in experimental physics. [Fifteen hours in the laboratory. Credit, five term hours.]

BOTANY.

PROFESSOR FOSTER.

As introductory to other subjects in botany, all students are advised to take subjects I, II, and III in botany, and I, II,

and III in zoology. These may conveniently be taken at the same time, so that at the end of a year the student will have completed sufficient work to enable him to take up more special study. Students desiring to make a specialty of botany should plan, if possible, to take these subjects in their freshman or sophomore year. They may be taken, however, to good advantage at any time by the student who wants only a general course in biology.

Students in the elementary subjects have the constant personal attention of the instructors, but as far as practicable are expected to use for themselves the means at hand. In the advanced subjects each student is required to do more independent work, though all necessary assistance is given.

SUBJECTS.

I, II, and III.—*Elements of Botany.*—Lectures and laboratory work. I. An elementary study of protoplasm. Types of algae; structure, developmental history, relation to environment, and classification. II. Types of fungi; classification, life history, and distribution. Liverworts. III. Mosses, ferns, club-mosses, and spermaphytes; alternations of generations and the problem of genetic relationship as indicated by similarity of structure and parallel development. [Lecture, quiz, and five laboratory hours a week throughout the year. Credit, three term hours.]

I*a*, II*a*, III*a*. Lectures, quizzes, and laboratory work on types supplementary to I, II, III. Throughout the year. Credit to be arranged.]

IV, V.—*Cell Morphology and Physiology.*—Cell structure, the organization of protoplasm, and general physiology of the plant cell. Instruction in technique and problems in mitosis and heredity. The reserve foods of plants stored in and by the cell. Lectures and laboratory work. [Fall and winter terms. Credit, three term hours.]

IV*a*, V*a*. Subjects IV and V may be taken as six hour subjects, by special permission.

VI.—*Plant Physiology.*—General physiology of the plant in its relation to environment. Problems in nutrition, growth,

and irritability. Lectures and laboratory work. [Spring term. Credit, three term hours.]

VI*a*. Subject VI may be taken as a six hour subject by special permission.

VII, VIII.—*Experimental Physiology.*—Special problems in plant physiology; research work. [To be taken only by permission; fall and winter terms; credit to be arranged.]

IX.—*Cell Structure and Physiology.*—Special research work. [To be taken only by permission; spring term; credit to be arranged.]

X, XI.—*Morphology of Spermaphytes.*—A study of the tissues and life history of a spermaphyte. [Lectures and laboratory work; fall and winter terms; credit to be arranged.]

XII.—*Reproduction and Embryology in Spermaphytes.* [Lectures and laboratory work; spring term; credit to be arranged.]

XIII.—*History of Botany.*—Biography; lectures on the development of theories and problems in the science of botany. [Spring term. Credit, one term hour.]

XIV.—*Field Club.*—Collection, preservation, identification, and study of specimens of the local flora, with occasional lectures. [Open to students who are prepared; any term. Credit to be arranged.]

XV, XVI, XVII.—*Journal Club.*—Important papers in the current literature of botany are reviewed and discussed by the instructors and advanced students. [Credit, given to advanced students only, one term hour. One meeting a week.]

FORESTRY.

PROFESSOR MEANY.

I, II, III.—History and progress of forestry as a science; sylva culture and uses of trees; problems presented for solution in the Pacific Northwest. [Lectures, theses, and field work. Two times a week throughout the year.]

GENERAL BIOLOGY.

SUBJECT.

I.—*Evidences and Factors of Organic Evolution.*—Illustrated lectures dealing with the subject from the standpoints of paleontology, comparative anatomy, classification, and distribution. No technical knowledge of biology is required, and the purpose of the course is to set forth a few of the simple yet forcible evidences on which a belief in the laws of organic evolution is founded. [Once a week; spring term.]

PROFESSORS FOSTER, KINCAID, ROBERTS, AND OTHERS.

ZOOLOGY.

PROFESSOR KINCAID.

In this department the more elementary courses are designed with especial reference to the place of zoology in the general scheme of education. By means of the laboratory method they bring the student in direct contact with the fundamental principles of animal life. They thus pave the way for a more thorough understanding of the related sciences in which biological principles play an important part, such as sociology, pedagogy, physiology, and paleontology.

The advanced courses are more technical in character and are designed for those intending to specialize to a greater or less extent in biology, or for students preparing for the medical profession.

SUBJECTS.

I, II, III.—*Elements of Zoology.*—A general review of the animal kingdom, with especial reference to the structure, classification, and bionomics of the several groups. Stress is laid upon the facts of zoology as bearing upon the current theories of biology. Representative types of the principal groups of animals are thoroughly investigated in the laboratory and field. [Lecture, quiz, and five laboratory hours a week throughout the year. Credit, three term hours.]

IV.—*Comparative Anatomy of Vertebrates.*—Comparative morphology of the principal types of vertebrates, with particular reference to the skeleton and nervous system. [Lecture, quiz, and five laboratory hours a week; fall term. Credit, three term hours.]

V.—*Histology.*—A study of cells and tissues, involving the technique of modern microscopy; sectioning, staining, and the use of other reagents. [Lecture, quiz, and five laboratory hours a week; winter term. Credit, three term hours.]

VI.—*Vertebrate Embryology.*—A comparative investigation of the developmental history of the vertebrates, based upon the embryonic development of the chick, with supplementary work upon other vertebrate forms. [Lecture, quiz, and five laboratory hours a week; spring term. Credit, three term hours.]

VII, VIII, IX.—*Physiology.*—A general course, dealing with the physiological activities of the human body. [Three lectures and two laboratory hours a week. Credit, three term hours.]

X, XI, XII.—*Entomology.*—The structure, classification, and natural history of insects; the preservation and identification of the various orders of insects in the vicinity. [One lecture and five laboratory hours a week throughout the year. Credit, three term hours.]

XIII.—*History.*—Lectures upon the historical development of zoology, including the rise of its more important theories and the life work of representative naturalists. [One lecture a week; winter term. Credit, one term hour.]

XIV.—*Problems in Evolution.*—Discussion of fundamental biological problems, including reviews of important contemporary articles. [One period a week; spring term. Credit, one term hour.]

XV, XVI, XVII.—*Research.*—Designed for advanced students who are capable of undertaking researches under the direction of the instructor in charge. [Credit to be arranged.]

GEOLOGY.

PROFESSOR LANDES.

In this department about one-half of the subjects offered may be styled general subjects and are such as might be taken by any student as a part of a liberal education. The remaining subjects are more technical and are designed for those who wish to engage in mining or advanced geological work. In all subjects enough time is given to insure thoroughness, and every precaution is taken that the student may be well-grounded. The method of instruction is in the main by lectures, laboratory, and field work, but in every subject a certain amount of reading is required. Lantern slides, photographs, maps, models, etc., are used extensively in a majority of the subjects as important means of illustration. There are good collections of minerals and rocks at the disposal of the classes in mineralogy and petrography. There is a fairly complete set of natural crystals and wood models for the study of crystallography. A fine microscope, with lathe for cutting and grinding rock-sections, is provided for petrography. The country contiguous to the University is a rich field for all kinds of field work in geology; while the University library has in it all of the government publications pertaining to the work of the department, besides most of the general literature on geology.

SUBJECTS.

I, II, III.—*General Geology.*—A consideration of the following general topics: Wearing away of the land; soils; glacial action; igneous and organic agencies; the nature and composition of rocks; mountain-building; fossilization; climate; the historical geology of the United States; the geology of Washington, etc. LeConte's Elements of Geology as text, with lectures, reading, laboratory and field work. [Credit, three term hours.]

IV, V, VI.—*Mineralogy.*—A study of the principles of crystallography, with laboratory work on wood models and natural

crystals; blowpipe analysis, with tests for thirty-five elements; descriptive and determinative mineralogy. Moses and Parsons's Mineralogy, Crystallography, and Blowpipe Analysis. [Two lectures and four laboratory hours a week throughout the year. Credit, three term hours.]

VII.—*Meteorology.*—A general consideration of the atmosphere; winds and storms; the causes and distribution of rainfall; weather; climate, etc. Waldo's Elementary Meteorology. [Three times a week; fall term.]

VIII.—*Oceanography.*—A course of lectures upon the ocean, dealing with such features as composition, temperature, waves, currents, tides, life, etc. [Two times a week; winter term.]

IX.—*Physical Geography.*—A course of lectures on the earth's surface features, considered in the light of their origin and history. [Three times a week; spring term.]

[VII, VIII, and IX constitute an advanced or college course in physical geography. This course is recommended for those who are preparing to teach in the public schools.]

X.—*Economic Geology.*—A study of the origin and extent of metalliferous veins and ore deposits; theory of the accumulation of gas and oil; varieties of coal, and localities of coal fields; building stones and other mineral products of use in the arts and of commercial importance. Lectures, with Kemp, Tarr, and Phillips as references. [Three times a week; autumn term. Prerequisites, III and VI.]

XI, XII.—*Petrography.*—A study of the distinguishing characteristics of the different groups and species of rocks, with the methods of classification employed. Lectures, reading, laboratory and field work, with Rosenbusch's Physiography of the Rockforming Minerals and Kemp's Handbook of Rocks as reference books. [Winter and spring terms. Credit, three term hours. Prerequisites, III and VI.]

XIII.—*Field-Work and Research.*—Instruction and practice in the methods of geologic field-work; investigation of special problems in geology. [To be taken only by special permission; any term. Credit to be arranged.]

ASTRONOMY.

PROFESSOR RANUM.

The work of this department is directed toward two ends:—(1) to widen the intellectual horizon by a comprehensive view of the structure of the material universe in its larger aspects; (2) to make practical use of astronomical theory for the purposes of engineering.

SUBJECTS.

I, II.—*General Astronomy.*—Outline of fundamental facts in regard to the solar system and the stellar universe. The observatory is used for illustrative purposes. Young's Elements of Astronomy. [Two times a week; fall and winter terms. Prerequisites, Mathematics I and Preparatory Physics.]

III.—*Practical Astronomy.*—Use of instruments, the solution of spherical triangles, and the determination of time, latitude, and longitude. Campbell's Practical Astronomy, Second Edition. [Two times a week; spring term. Prerequisites, II and Mathematics X.]

MATHEMATICS.

PROFESSOR RANUM AND ASSISTANT PROFESSOR GOULD.

The instruction offered by this department is intended to meet the wants of three classes of students—(1) general students, who pursue the study of mathematics principally as a means of culture and mental discipline; (2) students of engineering or physics, who require a thorough grounding in the methods of calculus and related subjects; (3) students who intend to specialize in mathematics.

Subjects I, II, III, which are required of all regular freshmen, are especially adapted to the needs of students of the first class mentioned above. Such students would, in many instances, profit by taking subjects VII, VIII, IX, in analytical geometry and calculus.

Subjects VII, VIII, IX, which are required of all students in engineering, form the basis for most of the higher prac-

tical applications of mathematics to mechanics, physics, and astronomy. They also furnish the starting point for the further study of pure mathematics. Subjects Ia, IIa, IIIa cover the same ground as I, II, III, but in a fuller and more complete manner, and with a view to their application to the subjects that follow.

The other subjects are intended primarily for the specialist in pure or applied mathematics.

SUBJECTS.

I, II.—*Higher Algebra.*—Rapid review of elementary algebra; binomial theorem; permutations and combinations; logarithms; theory of equations. Text-book, Wentworth's College Algebra. [Three times a week; fall and winter terms. Prerequisites, elementary algebra and plane geometry.]

III.—*Plane Trigonometry.*—An elementary course, emphasizing the solution of triangles and problems in heights and distances. Text-book, Wells' Trigonometry. [Three times a week; spring term. Prerequisites, I and II.]

Ia, IIa—*Higher Algebra.*—This course is intended for students in the College of Engineering and for those who wish to specialize in mathematics. Text-book, Fisher & Schwatt's Higher Algebra. [Four times a week; fall and winter terms. Prerequisites, elementary algebra and plane geometry.]

IIIa.—*Plane Trigonometry.*—This course is similar to III, but more time is given to analytical trigonometry. Text-book, Crockett's Trigonometry. [Four times a week; spring term. Prerequisites, Ia, IIa.]

IV, V, VI.—*Solid Geometry.*—Milne's Solid Geometry. [Two times a week throughout the year. Supplementary subject to I, II, III, or to Ia, IIa, IIIa.]

VII.—*Analytic Geometry.*—An elementary course in Cartesian and polar coordinates, the straight line, circle, ellipse, hyperbola, parabola, and higher plane curves. Text-book, Ashton's Analytic Geometry. [Five times a week; fall term. Prerequisites, Ia, IIa, IIIa.]

VIII, IX.—*Calculus.*—An elementary course in differential and integral calculus, with applications to geometry and mechanics. Text-book, Taylor's Calculus. [Five times a week; winter and spring terms. Prerequisite, VII.]

CIVIL ENGINEERING.

PROFESSOR FULLER, MR. BOETZKES, AND MR. JACKSON.

The subjects here offered have been arranged primarily for those pursuing one of the courses of the College of Engineering or of the School of Mines, yet all are open to any student of the University prepared to take them.

DRAWING.

The work in drawing begins with instruction in the use of instruments and practice in linear drawing. Drawings to scale of geometric forms are made in isometric, cabinet, and orthographic projections from printed descriptions, thus giving the student early practice in working from specifications. In the elementary machine drawing, freehand sketches are made of parts of machinery, from which accurate working drawings are constructed. Special attention is given to lettering. Accurate constructions are made of Roman and Gothic letters and numerals. Due regard is given to proper proportioning and spacing. Freehand lettering is taken up with a view to giving the students a ready command of a practical alphabet for working drawings. Topographic drawing includes an understanding of the conventional signs universally used and practiced in the representation of the earth's surface with both pen and brush.

SUBJECTS.

I, II.—*Mechanical Drawing.*—Use of instruments; linear drawing; isometric, cabinet, and orthographic projections; plane sections and section lining; intersections of simple geometric forms; lettering. [Nine hours a week; fall and winter terms. Credit, three term hours.]

MR. JACKSON.

III.—*Elementary Machine Drawing.*—Freehand sketches; working drawings. [Nine hours a week; spring term. Credit, three term hours.] MR. JACKSON.

IV.—*Topographic Drawing.*—Pen and colored topography. [Nine hours a week; winter term. Credit, three term hours. Prerequisite, II.] MR. BOETZKES.

DESCRIPTIVE GEOMETRY.

Descriptive geometry is taught by lectures, recitations, and drawing periods. The first term's work aims to make the student perfectly familiar with the projections and rotations of points, lines, and planes. This is followed by curved and warped surfaces, and shades, shadows, and linear perspective.

SUBJECTS.

I, II, III.—*Descriptive Geometry.*—Shades, shadows, and linear perspective. [Credit, two term hours; throughout the year. Prerequisites, Drawing II, and Mathematics III.]

MR. JACKSON.

SURVEYING.

Surveying is taught by lectures, recitations, and field and office work. It includes elementary land, city, and topographic work, and the elements of geodesy. Complete maps and profiles are made by each student from notes taken in the field.

SUBJECTS.

I.—*Plane Surveying.*—Theory of chain, compass, and transit surveying and leveling; the adjustment, and use of instruments; computation of area. Survey of a portion of the campus; maps. [Two recitations and two afternoons in the field a week; spring term. Credit, four term hours. Prerequisite, Drawing II; preceded or accompanied by Mathematics III.]

MR. BOETZKES.

II.—*City Surveying.*—Study of the precision necessary to be obtained; survey of a convenient portion of the city; maps. [One lecture and two afternoons in the field a week; fall term. Credit, three term hours. Prerequisite, I.]

MR. BOETZKES.

III.—*Topographic Surveying.*—Base line measurement; transit triangulation; plane table and stadia work; maps. [One lecture and two afternoons in the field a week; spring term. Credit, three term hours. Prerequisites, II, and Drawing IV.]

MR. BOETZKES.

IV.—*Elements of Geodesy.*—General study of the figure of the earth and of the methods and instruments used in precise surveys over large areas; field work. [Spring term. Credit, three term hours. Prerequisites, III, and Astronomy II; preceded or accompanied by Astronomy III.]

PROFESSOR FULLER.

RAILROADS.

The theory of curves, earthwork computation, and the conditions controlling the economic relation of location, construction, and maintenance are taken up in the class room. Reconnaissance and location are made in the field, from which maps and profiles are constructed and critically studied.

SUBJECTS.

I, II, III.—*Railway Location, Construction, and Economics.*—Theory of curves; field work; maps; profiles, earth work computation; economics. [Credit, four term hours, fall term; three term hours, winter and spring terms. Prerequisites, Surveying III and Mathematics IX.]

MR. BOETZKES.

MECHANICS.

Statics and dynamics are carefully considered from a theoretic standpoint and with regard to their application to engineering constructions. Mechanics of materials is treated under this head. Special attention is paid to practical applications.

SUBJECTS.

I, II, III.—*Statics, Dynamics, Mechanics of Materials.*—Lectures and recitations throughout the year. [Credit, four term hours. Prerequisites, Mathematics IX, Physics III, and preceded or accompanied by Physics IV, V, and VI.]

PROFESSOR FULLER.

HYDRAULICS.

PROFESSOR FULLER.

Under the head of hydraulics are: Theoretic hydraulics, including hydrostatics, hydrodynamics, and elementary thermodynamics; hydraulic motors; experimental work, including a study of the flow of water through orifices and pipes and over weirs, and the testing of water motors and meters; water supply; irrigation and sewage disposal. Each student is required to design an imaginary system under one of the last three heads, making drawings, bills of material, and estimate of cost.

SUBJECTS.

I.—*Theoretic Hydraulics.*—Hydrostatic pressure; immersion and flotation; compressed air motors; air compressors; steady flow of water through pipes and orifices, over weirs and in open channels. Lectures and recitations. [Credit, four term hours, fall term. Prerequisite, Mechanics III.]

II.—*Hydraulic Motors.*—Special attention is given to impulse wheels of the Pelton type and to turbines. Lectures and recitations three times a week. Laboratory work one period a week. [Credit, four term hours; winter term. Prerequisite, I.]

III.—*Water Supply.*—The design and construction of municipal water-supply systems; irrigation; sewage disposal. Lectures, recitations, and design. [Credit, four term hours; spring term. Prerequisite, I.]

BRIDGES.

PROFESSOR FULLER.

I, II, III.—*Simple Trusses.*—Stresses by analytic and graphic methods. Designs with working drawings, bills of material, and estimate of cost of a roof truss, a plate girder, and a pin-connected bridge, are made by each student. Lectures, recitations, computations, and drawing. [Credit, three term hours throughout the year. Prerequisites, Descriptive Geometry III, and Mechanics III.]

IV, V, VI.—*Higher Structures.*—Draw-bridges, cantilever bridges, suspension bridges, and metallic arches; stresses and

deflections. Lectures, recitations, and graphic determinations. [Credit, two term hours throughout the year; must be preceded or accompanied by I, II, III.]

MASONRY CONSTRUCTION.

PROFESSOR FULLER.

The principal materials used, such as stone, brick, and cement, and the method of preparing mortar and concrete are considered. Long and short time tests of the standard brands of cement are made. Special attention is given to the construction of foundations, dams, retaining walls, piers, abutments, culverts, arches, and highways. Careful study is made of existing structures.

SUBJECTS.

I, II.—*Masonry Construction.*—Civil constructions, with a study of the materials used. Lectures, recitations, and laboratory work. [Credit, three term hours; fall and winter terms. Prerequisites, Descriptive Geometry III, and Mechanics III.]

ELECTRICAL ENGINEERING.

PROFESSOR OSBORN, ASSISTANT PROFESSORS HEINE AND KELLY.

This department is associated with the department of Physics, and it has free use of its extensive apparatus and facilities for work. This includes the large general laboratory with five solid masonry piers for the support of sensitive instruments; the shop with its dynamo, motors, engine lathe, work benches, and battery room; the photometer and photographic room; and the lecture room and storage room. All these rooms are wired for electric light, time and experimental current, and furnished with gas and water.

There is a working equipment of primary and secondary cells, incandescent and arc lamps, adjustable rheostats, ammeters, voltmeters, galvanometers, and portable testing sets, condensers, telephone instruments, photometers for arc and incandescent light testing, and other electric supplies.

The shop is supplied with power by electric motors connected with the 500-volt circuit of the University power plant.

Additions are being made to the equipment. The laboratory is now supplied with standards for measuring electromotive force, current resistance, capacity, self-induction, and candle power. A Lummer-Brodhun photometer with standard lamp in a well ventilated dark room gives excellent facilities for tests of arc and incandescent lamps.

The aim of instruction in this department is to fit young men for filling responsible positions in the engineering profession by giving them a thorough knowledge of phenomena and principles, and of the various applications of electricity. The usual methods of text-book study, recitations, and lectures are employed, and the student is required to supplement these, as far as possible, with actual practice in the laboratory and by making tests of available commercial plants. Throughout the third and fourth years the students have daily work with electrical instruments and apparatus and with commercial problems. Occasional inspection tours among the varied electrical interests in Seattle and vicinity furnish excellent illustration. Engineering students are strongly advised to devote their vacations to work in factories, repair shops, electric light, and railway stations, to obtain commercial experience and a better appreciation of the relation of technical training to practical work.

SUBJECTS.

I, II, III.—*Dynamo Machinery.*—Theory of electro-magnets and direct current machinery, with methods of testing. Dynamo design. [Twice a week throughout the year. Prerequisites, calculus and physics.]

IV, V, VI.—*Dynamo Testing.*—Laboratory course. Testing of direct current machinery and apparatus. [Credit, two hours a term; throughout the year, accompanied by I, II, and III.]

VII, VIII, IX.—*Alternating Currents.*—Theory of alternating currents, power measurements, meters, and transformers. Class work supplemented by laboratory practice. [Throughout the year. Credit, four hours a term.]

X.—*Industrial Electricity.*—Outline of the industrial uses of electricity. Ohm's law, methods, and calculation of wir-

ing. [Three lectures a week; spring term. Prerequisites, Physics III and IV.]

XI.—*Electric Railways.*—Electric circuits; the road-bed and rolling stock; construction and operation. [Twice a week during the fall term.]

XII.—*Power Plants.*—Design and management of power plants. [Twice a week during the winter term.]

XIII.—*Transmission of Power and Electric Lighting.*—Construction and operation of transmission systems. Distribution of power. [Twice a week during the spring term.]

XIV.—*Electro-Chemistry.*—Primary and secondary batteries, electro-metallurgy, plating, etc. [Three lectures a week for one term.]

XV.—*Telegraphs and Telephones.*—Theory of telephones and telephone systems, marine and multiplex telegraphy. [Three lectures a week for one term.]

MINING ENGINEERING.

PROFESSOR ROBERTS, ASSISTED BY HON. FRED RICE ROWELL, R. H. STRETCH, M. E., AND OTHER SPECIAL LECTURERS.

The mining and milling methods in use at the present time throughout the western states are studied in detail, and comparisons made with the practice in different localities. Students are expected to gain such familiarity with some branch of the subject by practical work during the summer months that they can derive proper benefit during the junior and senior years from a study of text-books, expert reports, and professional papers.

SUBJECTS.

I.—*General Mining.*—Prospecting, tunneling, shaft-sinking, stoping, timbering. Percussion drills, diamond drills, explosives. Mine transportation, locomotives and ore-cars, hoisting machinery, etc. [Three lectures a week; fall term.]

II.—*Ore Dressing.*—Treatment of ores underground and at surface; hand picking, sizing, vanning, jigging, crushing with

rolls and in stamp battery. Sampling and purchasing of ores at smelters. [Two recitations a week; winter term. Taken in connection with subject IV.]

III.—*Ventilation, Pumping, Lighting, and Mine Management.*—Systems of draining and pumping, ventilating fans and derivations of formulae for their use, safety lamps, mine bookkeeping, systematic accounts showing cost of extraction of ore, etc. [Three lectures a week; spring term.]

IV.—*Mining Law.*—Lectures, recitations, and required reading. A study of the mining laws of the United States and especially those of Washington and Alaska. [Once a week; winter term.]

V.—*Summer Work.*—Continuous work in a mine, mill, or assay office; topographical field work, etc. [Laboratory work and preparation of field notes to be completed during the fall term.]

METALLURGY.

PROFESSOR ROBERTS.

The classroom and laboratory work in metallurgy is supplemented by frequent visits to the various assay offices, and smelting and refining plants located in Seattle and adjacent cities.

SUBJECTS.

I.—*Introductory.*—The properties of metals and alloys, the values of various fuels, types of furnaces, blast-furnace treatment of ores except iron, calculation of charges, etc. The lectures are illustrated with ores of all the most important metals, samples of furnace products, and drawings of furnaces (furnished by builders). [Three lectures or recitations a week; fall term.]

II.—*Base Metals.*—Principally iron, steel, and copper. [Three lectures a week; winter term.]

III.—*Gold and Silver.*—A study of the various processes of extraction, especially cyanidation, chlorination, amalgamation (with details of stamp-battery practice), and desilverization of lead. [Three recitations a week; spring term.]

IV.—*Fire Assaying.*—Laboratory work, supplemented by lectures and recitations. The testing of reagents, the sampling of ores, furnace and mill products; the preparation and assaying of ordinary ores and concentrates for lead, silver, and gold, by usual methods. Particular attention is paid to a study of the ores previous to grinding and sampling in each case. A wide variety of ores is furnished the student, in order to acquaint him with the difficulties that are met with in practical work, and the methods at hand to overcome them. [Three afternoons and one lecture a week; spring term.]

V.—*Wet Assaying.*—The assaying of bullion, determination of copper by wet methods, and the amalgamation assay. Also coal analysis. [Laboratory work, three afternoons a week.]

VI.—*Metallurgical Experimentation.*—The preparation and testing of alloys; comparative tests on the extraction of gold and silver from ores by amalgamation, chlorination, and cyanidation; electrolysis of ores or secondary products; microscopic study of metals and alloys, etc. [Laboratory work, three afternoons a week.]

VII, VIII, IX.—*Metallurgical Analysis.*—Special lines of work suited to the requirements of advanced students: for example, the determination by rapid methods of sulphur, arsenic, antimony, phosphorus, and carbon, in iron and steel; the estimation of lead, tin, copper, iron, zinc, nickel, and cobalt. [Laboratory work, two afternoons a week throughout the year.]

X.—*Summer Work.*—The study of some metallurgical plant, followed by an exhaustive report upon it. The students in metallurgy are expected to spend a portion of the summer vacation at work in a mill or smelter, in order to become familiar with various ores and standard methods of treatment. The preparation of notes must be completed before the middle of the fall term.

PHARMACY.

PROFESSORS BYERS AND FOSTER, ASSISTANT PROFESSOR LOUGH, AND DR. HASTINGS.

The object of this department is to fit the student for practical work as a pharmacist. The various operations of pharmacy are discussed from both the theoretical and the practical standpoint. All official preparations of the United States Pharmacopœia, and many which are unofficial, are discussed according to their relative importance. The subjects of prescription filling and of incompatibility receive special consideration. In the laboratory many of the preparations are manufactured and much prescription work done.

Materia medica is presented in a thorough course of lectures, and the organic and inorganic drugs taken up according to derivation and classification.

The work in urinary analysis and toxicology is intended to give thorough training in the analysis of normal and pathological urine, and in the detection and estimation of common poisons.

I, II, III.—*Theory and Practice.*—Lectures and laboratory work in the theory and practice of the operations of pharmacy; typical preparations manufactured by the student. Coblentz's Pharmacy. [Three lectures and six laboratory hours a week during fall term and two lectures and four laboratory hours during the winter and spring terms.]

ASSISTANT PROFESSOR LOUGH.

IV, V, VI.—*Preparations.*—Lectures and laboratory work on more advanced preparations, including theory and practice of extemporaneous pharmacy. [One lecture and four laboratory hours a week throughout the year.]

ASSISTANT PROFESSOR LOUGH.

VII, VIII.—*Materia Medica.*—Lectures and monthly examinations on inorganic, vegetable, and animal drugs, with reference to source, physiological and therapeutic action, dose, etc. [Three lectures a week during fall and winter terms. Credit, three term hours.] DR. HASTINGS.

IX.—*Microscopy.*—Examination of urine and water and identification of drugs by means of the microscope. [Three hours a week; spring term. No credit.]

DR. HASTINGS.

X, XI.—*Urinary Analysis, Toxicology.*—A thorough drill in practical work, and lectures on the chemical relations involved. [Two lectures and four laboratory hours a week; winter and spring terms.]

PROFESSOR BYERS.

XII.—*Morphology and Classification of Phaenogams.*—A study of the flowering plants from the standpoint of their gross anatomy and relationship. Typical plants are studied to present the characteristic features of their respective orders. [One lecture, one quiz, and five laboratory hours a week; winter and spring terms. Credit, three term hours.]

PROFESSOR FOSTER.

XIII.—*Vegetable Histology.*—The histology of seeds, leaves, roots, stems, etc. The methods of staining and the preparation of slides for study. Special attention is given to the finer structures of food substances and crude drugs, and the detection of adulterations. [One lecture, one quiz, and five laboratory hours a week; fall and winter terms. Credit, three term hours.]

PROFESSOR FOSTER.

XIV.—*Pharmacognosy.*—Study of the origin of drugs; description of method of preparation; chemical composition and exercises in identification of dried samples. Maisch's Materia Medica. [Two hours a week through winter and spring terms.]

ASSISTANT PROFESSOR LOUGH.

PHYSICAL CULTURE AND HYGIENE.

PROFESSOR VANDER VEER.

Ample preparation has been made to give students the benefit of a full course in physical training. Every student is advised to give at least three half-hour periods a week to work in this department. It will be especially beneficial to those

students who get, in their daily routine, very little physical exercise.

Unless excused, all students who do not take the work in the department of military science and tactics are required to take work in the department of physical culture and hygiene during the first two years of their collegiate residence.

In order to graduate, each student must have at least twelve credits in either the department of military science and tactics, or in the department of physical culture and hygiene, in addition to the one hundred and eighty credits required in other departments.

SUBJECTS.

I, II, III.—*Practical.*—Exercises in the various forms of gymnastics. In general, this course will consist of class work three half-hour periods a week, but arrangements may be made for more or less work, according to the time at the disposal of the student. Whatever arrangement is made, however, must be adhered to with regularity. [Credit, two term hours.]

IV, V, VI.—*Advanced.*—Instruction in anthropometry, charting, and tabulating of statistics, physical examinations, prescription of exercises, medical gymnastics, fitting of gymnasiums, and related subjects. Designed to prepare students who expect to teach or supervise the work of physical training in educational institutions.

MILITARY SCIENCE AND TACTICS.

LIEUTENANT A. T. ABBOTT, U. S. A., RETIRED, COMMANDANT.

The aim of this department is to give instruction in military science and tactics, and, by the observance of military discipline, to inculcate habits of attention, promptness, and obedience. In addition to these advantages, the careful and regular exercise afforded cannot fail to promote the health and physical development of the student.

All male students—collegiate, specials, and preparatory—not physically disqualified, are required to enroll themselves, and to serve in the department of military science and tactics

for the first two years of their connection with the University. This service, if faithfully and well performed, will entitle them to the twelve credits in physical culture that are required for graduation. Students physically disqualified must furnish a certificate of disability from a reputable physician, countersigned by their parent or guardian. When students are so disqualified to perform military duty, they must place themselves under the care of the department of physical culture and hygiene.

The following regulations govern the department:

First—The name of the organization shall be the University of Washington Cadets.

Second—It shall, in all military matters, be under the instruction and discipline of an officer of the United States army, as Commandant, and such cadet officers as may be nominated by him.

Third—All officers and non-commissioned officers of the battalion shall provide themselves with the prescribed text-books, and attend recitations and lectures on military science at such times as the Commandant may order.

Fourth—The hours for drill and instruction and for military ceremonies shall be at such times as the Commandant may order, and as will least interfere with recitations in other University studies.

Fifth—Attention is called to the following specifications of uniform dress:

(*a*) Coat—Regulation West Point fatigue coat, gray, single-breasted, buttoned down the front with five black horn buttons, concealed with a fly; the edges, bottom, and collar of coat faced with one and one-quarter inch black mohair braid, the back seams from the bottom of the coat to within two inches of the shoulder, covered with the same braid; the sides or hips to have two rows of braid extending six inches from bottom, finished at top with points.

(*b*) Trousers of same color as coat, with stripe of black cloth one and one-quarter to one and one-half inches wide, welted at the edges.

(*c*) Cap of dark blue cloth, United States cadet pattern; ornament, a gold embroidered eagle with the letters "U. W." in gold over it.

(*d*) Gloves, white Berlin.

(*e*) Insignia of rank are the same as in the United States army, except the point of the chevron will be up. Students must provide themselves with this uniform within thirty days after their enrollment at the University, unless this time be extended by the Commandant.

Sixth—The Commandant shall keep a regular roll, on which attendance, demeanor, and proficiency shall be marked, according to merit and demerit, and made the basis of military honor and promotion.

Seventh—Cadets, during the hours assigned to them for military exercises and recitations, shall promptly and fully obey the orders of their officers. The officers and non-commissioned officers and privates shall deport themselves toward each other as gentlemen and with military precision and respect.

Eighth—An absence from drill must be accounted for before the next drill. If the excuse is not satisfactory, the students may be required by the Commandant to make up the omitted drill by drilling under special orders, or to be deprived of credits.

Ninth—Appointments of cadet officers and non-commissioned officers of the battalion are made solely upon merit, and no officer or non-commissioned officer will be continued in line of promotion after failing to make satisfactory progress, or showing lack of appreciation of the honor and responsibility of his office.

Tenth—All general orders published from headquarters will be posted on the University bulletin board, or published to the battalion.

Eleventh—The University holds the cadet accountable for injury to, or loss of, government property while in his possession.

Twelfth—The soldierly appearance and efficacy of the cadet depend upon his effort and zeal, not only during the specified hours of drill, but also at all times and places. As it is impracticable within the few hours allotted to military exercise to eradicate serious defects, he should bear in mind his deficiency and faithfully endeavor to conquer it—to develop a strong, manly physique, and acquire a dignified, soldierly bearing. He should be scrupulously particular as to his appearance and deportment in uniform, always wearing the blouse buttoned throughout and preserving an erect carriage. To wear part uniform with part of citizen's dress is positively forbidden.

SUBJECTS.

I, II, III.—*Practical and Theoretical.*—Infantry exercises in the school of the soldier, company, and battalion; extended order movements, target practice, duties of a sentinel, and ceremonies. Lectures and recitations on the drill regulations of the United States Army, the preparation of the usual reports and returns pertaining to a company and a battalion, and the supply and discipline of the company. [Drill two hours a week; lectures, one hour a week throughout the year. Credit, two term hours.]

IV, V, VI.—*Advanced.*—Minor field operations, formations for advance guards, rear guards, and outposts. Military signaling with flag, torch, and heliograph. Castrametation. Lectures on military law, field works, preparation for war, the staff, tactics of the three arms, grand tactics, logistics, strategy, military history, material of war, and engineering. [Drill two hours a week, lectures one hour a week, throughout the year. Credit, two term hours.]

On the completion of the military work by each class, the Professor of Military Science and Tactics shall report to the Adjutant General of the Army the names of such students as have shown special aptitude for military service, and furnish a copy thereof to the Adjutant General of the State for his

information. The names of the three most distinguished students in military science and tactics at each college will be inserted on the United States Army Register.

THE SCHOOL OF LAW.

THE FACULTY.

FRANK P. GRAVES, PH. D., LL. D.,
PRESIDENT.

JOHN T. CONDON, LL. M., DEAN,
Professor of Law.

J. ALLEN SMITH, PH. D.,
Professor of Political Science.

EDMOND S. MEANY, M. S.,
Professor of Constitutional History.

ARTHUR R. PRIEST, A. M.,
Professor of Forensics and Oratory.

JOHN P. HOYT, LL. B.,
Professor of Law.

LECTURERS.

HON. CORNELIUS H. HANFORD,
Judge of the United States Circuit and District Courts,
Lecturer on the Law of Admiralty.

EDWARD WHITSON, A. B.,
Of the North Yakima Bar,
Lecturer on Irrigation and Water Rights.

HON. GEORGE H. KING,
Of the Seattle Bar,
Lecturer on Admiralty.

CHARLES E. SHEPARD, A. B., LL. B.,
Of the Seattle Bar.
Lecturer on the Law of Patents, Trade Marks, and Copyrights.

GEORGE E. WRIGHT, A. B. LL. B.,
Of the Seattle Bar,
Lecturer on the Law of Real Property.

JOHN ARTHUR,
Of the Seattle Bar,
Lecturer on Public Land Law.

PURPOSE.

The design of the School of Law is, by a special course, to prepare students for practice in any state in the Union, and to give a thorough, practical, and scientific education in the principles of the law.

All persons, irrespective of sex, are allowed to matriculate in the School of Law.

If, however, the person applying for admission intends to be a candidate for a degree at the end of the course, he must not be less than eighteen years of age, and must pass such examination in respect to general education as shall satisfy the faculty that his educational attainments will justify his entering upon the practice of law when his legal studies are completed.

Examinations for admission will be held at 2 p. m., on September 22 and 23, 1902.

The examination on the first of these days will have reference to general education, and will be on the subjects hereinafter named. The examination on the succeeding day will have reference to legal education, and is confined to candidates for advanced standing. Applicants for advanced standing are required to be present at both of these examinations.

Candidates are required to present themselves on these days, as they are expected to be present on the first day of the term, at which time the regular course of instruction will begin. To provide for cases in which it is absolutely impossible for the candidate to be present at this time, supplementary examinations will be held at such times as may be determined upon by the faculty, but no excuse, except of an urgent character, will be accepted for failure to appear at the first examination.

Graduates of colleges and accredited high schools will be admitted without preliminary examination, upon presentation of their diplomas.

No student who does not present such diploma will be admitted as a candidate for a degree, until he has passed a satisfactory examination in arithmetic, algebra, geography, orthography, English composition, and the outlines of the history of the United States and England.

The examination will be conducted in writing, and the papers submitted by the applicants must evince a competent knowledge of English grammar and rhetoric.

Candidates for advanced standing in law will be examined in whatever subject they may request, the examination not being restricted to the subjects included in the junior year, but being allowed as well on the subjects embraced in the senior year.

This examination is not final on the subjects taken, but the candidate must satisfy the faculty that he has made sufficient progress in his study of the law to justify his admission to the senior class. Before graduation every student is required to pass satisfactory examinations on all subjects included in the course.

Candidates for advanced standing are required to be present at the beginning of the year, as the degree will not be conferred upon any one who has not spent at least one full college year in this School of Law.

SPECIAL STUDENTS.

There are two classes of special students—those who are candidates for a degree, and those who are not.

Persons not desiring to be candidates for a degree may take one or more courses as special students, provided they are qualified to pursue such courses to advantage to themselves and without disadvantage to the school. They will receive a certificate of all work done, and they may at any time enter as candidates for a degree if they are qualified under the above requirements. Persons who are candidates for a degree, but who for some reason take other than the regular work of any one year, are registered as "special students, candidates for a degree."

REGISTRATION.

Before admission to examination every student is required to present to the Dean of the School of Law the Registrar's receipt for payment of the annual fee. It is essential, therefore, that a candidate for examination should apply first to the Registrar of the University at his office in the administration building, register his name as student in the School of Law, and pay his fees. He is then entitled to apply for admission to examination, and in case of rejection, the money paid preliminary to such examination will be refunded by the Registrar.

COURSE OF STUDY.

The course of instruction is a graded one, and extends through two years of nine months each. The instruction is not confined to any one of the various systems of legal education. Believing that a thorough knowledge of the jural relations arising and existing between men, and of the rights and their correlative obligations and duties springing therefrom lies at the basis of legal education, it is the aim of this school to employ the best in all systems of legal education, to the end that the student may gain a thorough knowledge of the fundamental rights, obligations, and duties. To accomplish this end, if the subject in hand is one that requires historical research for a complete understanding of it, the historical method is employed, tracing the growth and development of the subject and giving its application to the body of the law as it exists at the present day. If the subject is one which can be thoroughly understood from a study of well written text-books, advantage is taken of the experience of years of work of the legal profession as crystallized in such works. If the subject is one, as many are, in which no safe generalizations can be made, the inductive method is pursued by means of a study of the cases, in connection with some well written compendium or text-book upon the subject.

Since such a large body of our law is defined and construed by the decisions of the courts of last resort,the student is afforded an early opportunity of understanding the scientific basis of case law by means of a course of lectures on the subject.

During the entire course the student has, in lecture and text-book work and in the study of cases, at least fifteen hours a week of class-room work.

The following is a statement of the subjects upon which instruction is given:

Outline of Course of Study.

FIRST YEAR.

	First term.	*Second term.*	*Third term.*
	Hours.	*Hours.*	*Hours.*
Elementary Law	2	.....	.....
Contracts	2	3	3
Torts	2	2	.....
Quasi-Contracts	.....	.....	2
Property	2	2	2
Criminal Law	.....	2	.....
Bailments and Carriers	.....	2	.....
Domestic Relations	2	.....	.....
Agency	.....	.....	2
Statutory Interpretation	.....	.....	2
Pleading	2	2	.....
Moot Court Work	3	3	3

SECOND YEAR.

	First term.	Second term.	Third term.
	Hours.	Hours.	Hours.
Private International Law	.....	2	2
Pleading	2	.....	.....
Evidence	2	2	.....
Property	2	2	1
Community Property	.....	1	.....
Equity Jurisprudence	2	2	.....
Partnership	2	....	.....
Private Corporations	.....	2	.....
Municipal Corporations	.....	.....	2
Negotiable Instruments	2	.....	.....
Attachment and Garnishment	.....	1	.....
Wills	.....	.....	2
Mining Law	.....	1	.....
Federal Jurisdiction	.....	.....	1
Admiralty	.....	.....	1
Washington Statutory Law	.....	.....	1
Moot Court Work	3	3	3

SPECIAL SUBJECTS.

Irrigation Law.
Medical Jurisprudence.

Thesis.

It is the desire of the faculty to encourage original investigation and research by the students. Each candidate for a degree is required to prepare and deposit with the Dean of the School of Law, before the beginning of the spring term of his senior year, a thesis of not less than forty folios in length, upon some legal topic selected by the student and approved by the faculty. The student will be examined by the faculty upon his thesis. It must be printed or typewritten, and securely bound, and is to be kept permanently in the School of Law.

The Practice Court.

The practice court is a part of the School of Law and is presided over by a competent instructor, while the other members of the faculty co-operate in conducting it. The court is provided with a full corps of officers, including the member of the faculty who shall sit from time to time as presiding judge, a clerk, a sheriff, and the necessary deputies. It meets every Saturday.

Elocution and Oratory.

It is important to those who study the law with the view of becoming advocates, that they should give attention to the subject of public speaking, in order to equip themselves for the performance of their duties as advocates.

The junior class may receive instruction in vocal culture, articulation, and pronunciation; position and gesture; quality and force of voice. An advanced course in forensics and oratory is arranged for the senior class.

Constitutional History and Political Science.

It is believed that the students of the School of Law may derive great benefit from their instruction given on kindred subjects in the College of Liberal Arts.

Students who first obtain permission from the Dean of the School of Law and make application to the Dean of the College of Liberal Arts are allowed to attend lectures and recitations in that school, free of charge. But the Dean of the School of Law reserves the right to require such students to give up any or all studies they may be pursuing in the College of Liberal Arts whenever it ap-

pears that the pursuit of these studies is attended with an unsatisfactory performance of the duties required in the School of Law.

EXAMINATIONS.

The members of both classes are examined daily throughout the year in their studies. At the end of the first year the members of the junior class are subject to an oral and written examination on the lectures delivered during the year, and their promotion to the senior class is dependent on the manner in which they pass such examinations. The examinations of the junior class at the end of the first year are final on the subjects of that year.

At the end of the second year the members of the senior class are required to pass satisfactory oral and written examinations on the subjects of the lectures during the senior year. Satisfactory examinations must also be passed by the members of both classes on the text books and cases used for the purpose of instruction.

DEGREE.

The degree of Bachelor of Laws (LL. B.) will be conferred upon such students as pursue the full course of two years in the School of Law of the University of Washington and pass an approved oral and written examination. It will also be conferred upon those who, having attended another approved law school for a period equal to one year of the course of this School of Law, or having practiced law for one year under a license from the highest court of general jurisdiction in any state where the requirements for admission to the bar are equal to those in Washington,

or having passed a satisfactory examination for advanced standing, also pursue one year's course in this school and pass like examinations.

FEES.

Fees are payable in advance. The tuition fee is twenty-five dollars a year, if paid in advance for the whole year; and ten dollars a term, if paid in advance for each term.

For any single course the fee is five dollars, payable at the beginning of the course.

The graduation fee is five dollars for each student receiving a degree.

For further particulars, address

JOHN T. CONDON, LL. M., *Dean of the School of Law,*
University of Washington, Seattle, Wash.

THE PREPARATORY SCHOOL.

JAMES E. GOULD, PH. B.,
PRINCIPAL.

PURPOSE.

The Preparatory School was originally intended to bridge the gap between the work of the freshman class of the University and that of the districts where there were no high schools.

No new students will be admitted hereafter. Those already in attendance will be given an opportunity to graduate, if this can be accomplished within two years.

GOVERNMENT.

The work of the Preparatory School is under the supervision of a principal, who is assisted by a regular corps of instructors.

The methods of government in the Preparatory School are stricter than in the colleges of the University. The pupils obtain all the advantages of contact with trained specialists without losing the discipline best adapted to secondary schools.

SUBJECTS OFFERED.

The following subjects are offered in the Preparatory School of the University. Students are required to consult with the Principal of the School before making out their course.

RHETORIC AND LITERATURE.

Webster's English Composition and Literature is used, in connection with the college requirements in literature. Frequent essays are required along the line studied during each term.

I.—*Rhetoric and Literature.*—Paragraphs and sentences will be reviewed. A careful study *of Julius Caesar*, with particular regard to its structure, and of the Princess, with regard to its imagery, will be made. [Five times a week during each term.]

II.—*Rhetoric and Literature.*—Continuation of Subject I. Macaulay's Essays on Addison and Milton, and Carlyle's Essay on Burns will be carefully studied in connection with Exposition in the Rhetoric. Milton's Minor Poems will be carefully read. [Five times a week; winter term. Prerequisite, I.]

III.—*Rhetoric and Literature.*—Continuation of Subject II. Special study of Burke's Speech on Conciliation with America, in connection with Argumentation in Rhetoric. Silas Marner will be read, and Words in the Rhetoric studied. [Five times a week; spring term. Prerequisite, II.]

MATHEMATICS.

(*a*) *Algebra.*—Fisher and Schwatt's Algebra. Elementary algebra is a prerequisite for entrance to this subject. [Two times a week throughout the year.]

(*b*) *Plane Geometry.*—Milne's Plane Geometry. Original demonstrations and solutions by the student are essential features. [Five times a week; winter and spring terms.]

(*c*) *Solid Geometry.*—Milne's Plane and Solid Geometry. [Two times a week throughout the year.]

(*d*) *Plane Trigonometry.*—The solution of triangles; use of logarithms. Wells's Plane Trigonometry. [Three times a week; spring term.]

HISTORY.

(*a*) *American.*—Montgomery's Leading Facts of American History is used as text. Collateral readings and research on assigned topics are required. [Five times a week; spring term.]

(*b*) *English.*—Montgomery's Leading Facts of English History as text, with required readings and reports from other sources. [Three times a week; fall and winter terms.]

(*c*) *Ancient.*—Myers's Ancient History. [Two times a week throughout the year.]

(*d*) *European.*—Myers's Mediaeval and Modern History. [Three times a week throughout the year.]

CIVICS.

Fiske's Civil Government in the United States. Lectures, recitations, and practical illustrations. [Five times a week; fall term.]

BIOLOGY.

(*a*) *Zoology.*—An elementary study of animal life, as an introduction to the general features of zoological science. [One lecture and five laboratory hours a week; first half year.]

(*b*) *Botany.*—A study of the flowering plants from the standpoint of their gross anatomy and relationship. Typical plants are studied to present the characteristic features of their respective orders. [One lecture, five laboratory hours, and one quiz a week; second half year.]

(*c*) *Physiology.*—An elementary study of the human body, including the study of the special senses, in addition to that of the vegetative functions. [Three times a week; winter term.]

PHYSICS.

Lectures, recitations, and laboratory work. The subject must be preceded by algebra to quadratic equations, and by plane geometry. [Three lectures and four laboratory hours a week throughout the year.]

LATIN.

(*a*) *Cicero.*—Allen and Greenough's Cicero (seven orations); Latin Prose Composition. [Daily throughout the year.]

(*b*) *Vergil.*—Greenough and Kittredge's Vergil (six books); Latin Prose Composition; Review of Cicero. [Daily throughout the year.]

GREEK.

(*a*) *Beginning.*—Graves and Hawes's A First Book in Greek. Drill in Greek inflections and constructions. Exercises in translating English into Greek. Xenophon's Anabasis, Book I. [Three times a week throughout the year.]

(*b*) *Xenophon, Homer.*—Goodwin's Revised Edition of Xenophon's Anabasis, Books I-III; Seymour's Iliad of Homer, Books I-III; reading at sight; Woodruff's Greek Prose Composition. [Three times a week throughout the year.]

GERMAN.

(*a*) *Beginning.*—Outline of grammar; practice in pronunciation; composition; 150 pages of easy prose; Schiller's Wilhelm Tell. [Three times a week throughout the year.]

(*b*) *Supplementary.*—Covering work along the same lines as (*a*). [Two times a week throughout the year.]

FRENCH.

(*a*) *Beginning.*—Outline of essentials in French grammar; exercises in pronunciation; translations from French into English and English into French; reading of easy prose selections, and later of moderately difficult selections from representative writers. [Three times a week throughout the year.]

(*b*) *Supplementary.*—Dictation and composition; reading at sight; practice in pronunciation. [Two times a week throughout the year.]

CHEMISTRY.

Experimental lectures and quizzes with laboratory work on experiments selected from Smith's Manual. Remsen's Briefer Course. This course is intended to duplicate the courses offered by the accredited high schools. [Two lectures and four laboratory hours a week throughout the year.]

THE REGISTER OF STUDENTS FOR 1901-1902.

GRADUATE SCHOOL.

NAME.	HOME ADDRESS.
Boetzkes, Edith H., A. B.	New York, N. Y.
Boetzkes, Ottilie G., A. B.	New York, N. Y.
Boggs, Cassandra, B. L.	Urbana, Ill.
Davidson, James G., A. B.	New Westminster, B. C.
Edmunds, Thomas T., A. B.	Columbia
Hopkins, Paul, B. S.	Ballard
Lough, Thomas W., A. B.	Fremont
McDevitt, William, A. B., LL. M.	Chehalis
Pratt, Ina I., B. S.	Whatcom
Proctor, Adelaide G., A. B.	Seattle
Ruddy, Charles A., A. B.	Everett
Storey, John C., A. B.	Fremont
Vail, Arthur C., A. B.	North Yakima

COLLEGE OF LIBERAL ARTS.

SENIOR CLASS.

Ames, G. Walcott	Fairhaven
Barton, Arthur W.	Seattle
Blodgett, Charla A. H.	Seattle
Brown, Ruby L. L.	Everett
Ceis, Fred J.	Seattle
Chesnut, Fred D.	Tacoma
Cosgrove, Howard G.	Pomeroy
Cotchett, Walter V.	Magnolia Bluff
Crosno, May F.	Ahtanum
Crosno, Ollive V.	Ahtanum

NAME.	HOME ADDRESS.
Crueger, Otta B	Snohomish
Duffy, Edward A	Seattle
Fleischer, Amanda F	Seattle
Gardiner, Alice E	Everett
Greene, Grace E	University Station
Griggs, Urbane S	Whatcom
Hastings, Albert C	Van Wert, O.
Huntoon, Richard W	Fairhaven
Knight, Henry G	Leland
Landes, Charles	Carroll, Ind.
Laube, William T	Whatcom
Main, Oscar R	Monmouth, Ill.
McDonnell, E. Pearl	University Station
McGlinn, J. Garfield	La Conner
Minkler, Garfield A	Lyman
Porter, Alice M	Seattle
Pratt, Ruth R	Whatcom
Remington, Alton W	Seattle
Robertson, Edna E	Olympia
Shepard, Mabel	Seattle
Winsor, Blanche L	Ballard
Woody, William W	Winlock

JUNIOR CLASS.

Allen, Riley H	Ravenna
Beatty, Margaret J	Custer
Becker, Meta V	Fremont
Boetzkes, Harry W	New York, N. Y.
Bovey, J. Elmer	Sedro-Woolley
Boyce, Ernest P	Portland, Ore.
Brightman, Frank E	Fairhaven
Brintnall, A. Estelle	University Station
Caithness, Jeanne F	Everett
Chilberg, Mabel	Seattle
Covey, Alma	Georgetown
Crueger, Minnie S	Snohomish

NAME.	HOME ADDRESS.
Delaney, Alma J.	Juneau, Alaska
Dodson, Ava E.	Fairhaven
Erford, J. F. Roy	Colfax
Eshelman, Carl D.	Tacoma
Ewing, Robert L.	Arcola, Ill.
Giles, Alfred R.	Fremont
Greene, Mary R.	University Station
Hanson, Howard A.	Christopher
Hunt, S. Irene	Central City, Neb.
Joyce, Emma M.	Seattle
Knisell, Juanita	University Station
Korstad, Thomas A.	Whatcom
Latimer, T. Erwin	North Yakima
Littlefield, W. Percy	Visalia, Cal.
Lynch, Mabel M.	Seattle
McDonald, Donald	Green Lake
McDonnell, Elizabeth T.	University Station
McKeown, Frank J.	Mt. Vernon
Miller, Lillian R.	Fairhaven
Millican, Alfred C.	Fremont
Mittelstadt, Agnes	Sumner
Morgan, Adelle	Waitsburg
Oliver, Roland N.	Pendleton, Ore.
Pomeroy, June R.	Cheney
Pratt, Alida G.	Whatcom
Reeves, Sarah C.	University Station
Ranum, Louise C.	University Station
Sargent, A. Earl	Eugene, Ore.
Sheldon, Althea M.	Blaine
Shoudy, Loyal E.	Ellensburg
Stadelmann, Pearllita C.	Whatcom
Stevens, Edwin B.	Olympia
Walton, Chester E.	North Yakima

SOPHOMORE CLASS.

Anderson, Alice W.	Seattle
Blodgett, Eleanor	Seattle

NAME.	HOME ADDRESS.
Brown, Mabel L.	Custer
Brown, Mildred M.	Custer
Buland, Mabel	Castle Rock
Burgess, Edith L.	Seattle
Carpenter, L. Ross	Vashon
Coffman, Marion	Chehalis
Crouch, Katherine	Oquawka, Ill
Dean, J. Foster	Whatcom
Fallis, Lewis D.	Centralia
Foglesong, William A.	Centralia
Gabel, Tip E.	Chehalis
Giles, Gertrude M.	Fremont
Greene, Elmer C.	Chehalis
Gruwell, Maude N.	South Bend
Hancock, Elizabeth B.	Grand Haven, Mich.
Hardman, Max	Seattle
Hastings, Frederic W.	Van Wert, O.
Heckman, William B.	Equality
Heffner, Bertha L.	Snohomish
Heppenstall, Minerva A.	Seattle
Hicks, Ethel D.	Seattle
Johanson, Joel M.	Everett
Johnson, Aylett N.	Whatcom
Kellogg, James Y. C.	Seattle
Le Sourd, Charles L.	Coupeville
Ludden, Jessie L.	Spokane
Madsen, Magda	Green Lake
Mann, Viola	Ballard
Manning, Maude W.	Seattle
McIntosh, Vera E.	Morenci, Mich.
Mehner, Albert H.	Tacoma
Merrill, Edgar B.	Bridger, Mont.
Nakamura, Yoshitar	Tacoma
O'Meara, Mary G.	Franklin
Pearson, Robert G.	Starbuck
Perry, H. Jeannette	Seattle

NAME.	HOME ADDRESS.
Pielow, Myra S.	Seattle
Randell George C.	Seattle
Reinhart, Anna	Olympia
Rogers, Roy C.	Whatcom
Saliger, Alois P.	Chehalis
Saylor, Ella	North Yakima
Scroggs, Maurice D.	Eureka, Kan.
Sherrick, Florence L.	Puyallup
Slattery, John R.	Fairhaven
Smith, Phene L.	Lowell
Taylor, Frank V.	Olympia
Taylor, Marvin W.	Lincoln, Neb.
Terpenning, A. Roy	Olympia
Tucker, Edith A.	Seattle
Tucker, Lena L.	Seattle
Twitchell, Dalbert E.	Spokane
Urquhart, James A.	Chehalis
Vestal, Webley M.	Snohomish
Wald, Rosa E. A.	Seattle
Wetzel, Helen M.	Spokane

FRESHMAN CLASS.

Akiyama, Takashi	Portland, Ore.
Baker, George M.	Goldendale
Beyer, Hebe G.	Whatcom
Bird, Joseph V.	Snohomish
Blethen, Florence A.	Seattle
Boyd, Mildred M.	Sumner
Brinker, William H., Jr.	Seattle
Brunn, Clinton A.	Seattle
Burwell, William T., Jr.	Bremerton
Campbell, Gilbert W.	Waterville
Comstock, Bessie L.	Seattle
Cooper, Phania H.	Seattle
Corey, Anna E.	Kankakee, Ill.
Dalby, David H.	Seattle

NAME.	HOME ADDRESS.
De Land, Robert W	Olympia
Diamond, Maude	Whitesboro, Tex.
Edwards, Catherine L	Everett
Evans, Robert H	Blaine
Fleming, Ferne	Spokane
Fowler, Herman M	Centralia
Frank, Else B	Tacoma
Freyd, Bertha I	Seattle
Gaches, E. Hilda	La Conner
Gardner, Alexander A	Seattle
Griffith, Mabel	Whatcom
Hadley, Clyde M	Olympia
Hanson, Selma	Enumclaw
Hill, Ellen K	Seattle
Hunt, Ethel L	Central City, Neb.
Jackson, Bessie C	Pembina, N. D.
Jackson, H. Clare	Enterprise
Johnson, Percy H	San Jose, Cal.
Johnson, Mabel D	Seattle
Kingsbury, John A	Prosser
Kinnear, John R	Seattle
Kirkman, Wilbur D	Spokane
Loud, Llewellyn L	Caribou, Me.
Lough, Jacob W	Fremont
MacFate, Bertha M	Seattle
Marlow, Mamie G	Spokane
McBride, Nellie J	Whatcom
McGlinn, Robert E	La Conner
McLean, Walter G	Georgetown
Miller, John D	Seattle
Millican, Harold A	Fremont
Mitchell, James B	Fairfax
Mowrey, Claudia	Three Rivers, Mich.
Nichols, William A., Jr	Seattle
Perry, May B	Seattle
Peterson, Paul W	El Campo, Tex.

NAME.	HOME ADDRESS.
Rowell, Earle A.	Kasaan, Alaska
Rushton, Mabel G.	Seattle
Scatcherd, Eleanor F.	Seattle
Shelton, Celia D.	Seattle
Sigworth, Jay H.	Utica, Pa.
Simonds, Wendell P.	Seattle
Smalley, Royal de L.	Seattle
Smith, Fred H.	Seattle
Strohm, J. Herbert.	Seattle
Taylor, Imo	Seattle
Waugh, Rachel K.	Mt. Vernon
Wetzel, Louise A.	Spokane

UNCLASSIFIED.

Adams, Norma E.	Seattle
Ames, Frederick C.	Fairhaven
Barbee, May R.	Olympia
Bjarnason, Johann	Winnipeg, Can.
Blethen, Marion R.	Seattle
Blomquist, John M.	Tacoma
Bradshaw, Beatrice E.	Walla Walla
Bryan, Clara M.	Seattle
Burgess, Charlotte M.	Boston, Mass.
Cann, Adeline	Seattle
Chapman, Myra M.	Amherst, N. S.
Clarke, Almon	Seattle
Côtchett, Euphrosyne	Seattle
Crocker, Sewall K.	Walla Walla
Davis, Albert E.	Van Asselt
Davis, William E.	Seattle
Dean, Blanche L.	Seattle
Dennis, Mary E.	University Station
Donohoe, Thomas M.	Chehalis
Dwyer, Grace	Tacoma
Farrar, Emma A.	Seattle
Fox, Edward M.	Seattle

NAME.	HOME ADDRESS.
Fox, Ray S	Seattle
Gilkey, Myrtle R	Seattle
Hallock, Edna	Seattle
Hammer, Charlotte L	Seattle
Harris, Ethel M	St. Paul, Minn.
Hartung, Olga C	Columbia
Hastie, Warren D	Nome, Alaska
Himmelhoch, Ray	Seattle
Hood, Mable E	Seattle
Horton, Howard D	Georgetown
Hughes, Inghram	Palouse
Humes, Samuel J	Seattle
Humes, G. Jay	Seattle
Kane, Anna B	Seattle
Keller, William	Butte, Mont.
Kline, Bella M	Ballard
Korstad, Fred	Watsonville, Cal.
Kuhnke, Maud S	Seattle
Lane, Winnie V	Waterville, Me.
Larson, Lillie	Union, Ore.
Law, Frank	Dungeness
Lebold, Bertha M	Seattle
Lee, Edna M	University Station
Lee, George N	Pontiac
Livingstone, Sarah	Seattle
Low, Herbert W	Chicago, Ill.
Madsen, Theodore M	Green Lake
Marriner, Mary G	Seattle
McCarney, Margaret L	Seattle
McKinistry, Mason R	Seattle
Michelson, Edith S	St. Joseph, Mo.
Minkler, Birdsey A	Lyman
Morrow, Troy A	Bonner's Ferry, Ida.
Nelson, Ethel B	Tacoma
Nichols, C. Louise	Seattle
Olds, Alla M	Mercer Island

NAME.	HOME ADDRESS.
Pearson, Joseph U	Starbuck
Plaskett, Petuna G	Seattle
Prosch, Arthur M	Seattle
Putraw, Perle A	Seattle
Rankin, Mary V	Pontiac
Raser, Carrie B	Seattle
Robertson, Mildred L	University Station
Rosenberg, Anna M	Seattle
Rusk, John P	Portland, Ore.
Samples, Maude E	Seattle
Saunders, Jessie G	Seattle
Schmidt, Alexander R	Bremerton
Shaw, Maude A	Seattle
Shelley, T. Howard	Baltimore, Md.
Smith, Harriette E	Rosalia
Studebaker, Ella	Castle Rock
Stuff, Josephine W	Seattle
Taggart, Alice	Odebolt, Ia.
Taylor, Cora	Seattle
Tilton, Charles S	Seattle
Tinsley, Maude	Lawrence, Kan.
Underwood, Julia	Loomis
Waite, A. Mary	Puyallup
Warner, Clara A	Tacoma
Watkins, Mattie S	Spokane
Wiestling, Virginia G	Seattle
Willett, Gertrude L	Seattle
Wilson, Bessie B	Seattle
Wright, Jessie E	Seattle
Ziegler, Nellie V	Seattle

COLLEGE OF ENGINEERING.

SENIOR CLASS.

Rowell, S. Parker, A. B	El	Seattle
Trout, Glen H., A. B	Civ	Garfield

JUNIOR CLASS.

NAME.		HOME ADDRESS.
Duckering, William E.	Mech.	Seattle
Harris, Charles W.	Civ.	Boisfort
Rathbun, J. Charles.	Mech.	Olympia

SOPHOMORE CLASS.

Allfree, Barney K.	El.	Whatcom
Brooks, Edward M.	El.	Fremont
Dunbar, Glendower	El.	Seattle
Emerson, Raffe	Civ.	Philadelphia, Pa.
Field, Frank	El.	Snohomish
Frisbee, Leroy W.	El.	Ellensburg
Hill, William R.	El.	Seattle
Hoskins, Eugene T.	Mech.	Fairhaven
Lantz, Clinton	El.	Centralia
McElmon, Fred	Mech.	Whatcom
McFarland, Kenneth C.	Civ.	Sumner
Metsker, Charles F.	Mech.	Winlock
Reasoner, Frank M.	El.	Whatcom
Richardson, Fred H.	Mech.	Seattle
Rockfellow, Don E.	Civ.	Tacoma
Van Kuran, Carl E.	El.	Portland, Ore.

FRESHMAN CLASS.

Bennett, Manchie O.	Civ.	Ellensburg
Button, Charles E.	Mech.	Seattle
Dana, Donald W.	El.	Dunlap
Fowler, Frank H.	El.	Fairhaven
Gibbons, Charles B.	El.	Marshall, Minn.
Gibson, John	Civ.	Seattle
Gloster, Richard	Civ.	Whatcom
Hellenthal, Joseph, Jr.	El.	Columbia
Hopkins, John A.	Civ.	Ballard
Kuniyasu, Uichi	El.	Yamaguchi, Japan
Moss, Herbert C.	El.	Seattle
Nixon, Edward S.	Civ.	Walla Walla

NAME.		HOME ADDRESS.
Snoke, R. Percy	El	Puyallup
Spalding, Harold B	El	Spokane
Stead, Arthur J	Civ	Griggsville, Ill.
Sullivan, Allen C	Mech	Fremont
Thedinga, Henry H	El	Seattle
Wilkinson, Bernard W	El	North Yakima

UNCLASSIFIED.

Cooper, Adeline A. K	Civ	Junction
Hamlin, Milton	Mech	Seattle
Schneider, Hugo	Mech	Seattle
Shrader, Roy G	El	Perry, Okla.
Trout, Frank V	Civ	Garfield
Whitworth, Frederick H., Jr.	El	Seattle

SCHOOL OF MINES.

SENIOR CLASS.

Corbet, Galbraith H. J	Seattle
Hill, Climie E., B. S	Seattle
Ryan, Lewis D	Sumner

JUNIOR CLASS.

Morehouse, George B	Skagway, Alaska
Parker, I. Curtiss	Seattle

SOPHOMORE CLASS.

Dunlap, John W. P	Seattle
Hulce, Edgar M	Sumner
Lindig, Harry J	Juneau, Alaska
Livingstone, Gilbert T	Seattle
Miles, W. Leslie	Tacoma
Richardson, Samuel H., Jr	Seattle
Teats, Roscoe	Tacoma
Treen, Shirley M	Skagway, Alaska
Waller, J. Frank	New Westminster, B. C.

FRESHMAN CLASS.

NAME.	HOME ADDRESS.
Atkinson, Wallace L.	Philadelphia, Pa.
Clark, Miles E.	Seattle
Coleman, John	Chehalis
Franklin, Curry	Vancouver
Harrison, Max	Seattle
Hassell, William R.	Seattle
Hubert, Karl	Seattle
Peterson, Roy J.	Seattle
Pickens, L. Alton	Seattle
Reid, John L.	Whatcom
Stenger, Edward L.	Whatcom
Stevenson, William D.	Seattle
Wadsworth, Newell D.	Tacoma
Wernecke, Livingston	Seattle
Williams, Ralph E.	Seattle
Ziebarth, Herbert W.	Seattle

UNCLASSIFIED.

Cameron, R. Clyde	Seattle
Cuddihy, James F.	Nome, Alaska
Denton, Arthur P.	Seattle
Gaches, Charles E., A. B.	La Conner
Gould, James E., Ph. B.	North Seattle
Haines, Burton C.	Seattle
Kean, Walter C.	Ballard
Lord, Albert B.	Pittsburg, Pa.
McDonald, Donald F.	Wrangel, Alaska
McMillan, John D.	Walla Walla
Moldestadt, Mathias	Everett
Murphy, Frank D.	Burke, Ida.
Richards, George A.	La Crosse, Wis.
Rock, Robert J.	Seattle
Van Dorn, Ralph M.	Spokane

PROSPECTORS' COURSE.

NAME.	HOME ADDRESS.
Allen, Frank O	Spokane
Anderson, Andrew I	Hardin
Brown, Homer C	Newark, N. Y.
Graham, Thomas L	Preston
Hannegan, James D	Whatcom
Wood, La Verne	Whatcom

SCHOOL OF PHARMACY

SECOND YEAR.

Benedict, Bert A	Oakesdale
Boatman, Ida M	Seattle
Cameron, Hayden S	Columbia
Gray, Charles M	Salt Lake, Utah
Hansen, Henry C	Spokane
Hubert, Anna, A. B	Seattle
Kellogg, Sarah	Seattle
Lacey, Martin J	Auburn
Lutz, Walter A	Whatcom
McKinnon, Charles M	Ross
Page, George R., Jr., A. B	Seattle
Pike, Chester A	Goldendale
Prigmore, George D	Pe Ell
Smith, Joseph H	Hoquiam
Vercoe, William H	Mt. Vernon
Wanamaker, Allison T	Coupeville
Weed, Melvin A	Seattle

FIRST YEAR.

Benham, Arthur L	Portland, Ore.
Conley, Robert C	Ballard
Cox, Cecil B	Whatcom
Crosby, Katherine	Milton, Wis.
Ellis, De Witt D	Fremont
Fowler, Alexander	Port Angeles
Hagy, Myrtle M	Chard
Horner, Charles R	Belle Plain, Kan.

NAME.	HOME ADDRESS.
Johannsson, Bjarni O	Akra, N. D.
Johnson, Carl E	Vancouver
Leitch, Claude	Aberdeen
McFadden, Claude H	Seattle
Nelson, Roy W	Marysville
Pickering, Ernest E	Issaquah
Schooley, William M	Green Lake
Speidel, William C	Chicago, Ill.
Strauss, Alfred A	Colville
Urquhart, James T	The Dalles, Ore.
Walter, George E	University Station
Watrous, Florence I	Caro, Mich.

SCHOOL OF LAW

SENIOR CLASS.

Austin, William M	Barbadoes, B. W. I.
Elwell, William T	Snohomish
Hayek, Frank	Portland, Ore.
Higgins, John C., A. B	Eugene, Ore.
Kenworthy, Leon B., A. B	Dayton
Latimer, Jay M	Nome, Alaska
Levy, Aubrey, A. B	Seattle
McCann, Charles	Everett
Mitchell, Grace E	Seattle
Osborn, Walter S	Seattle
Parker, Adelle M., A. B	Seattle
Paul, Frank H	Chicago, Ill.
Paul, Walter F	University Station
Pettijohn, Clive A	Grand Forks, B. C.
Shorett, John B	Harlan, Ia.
Tennant, George R	Seattle
Yamashita, Takuji	Yekime, Japan

JUNIOR CLASS.

Adams, J. Oscar	Ritzville
Anderson, Oliver	Georgetown

NAME.	HOME ADDRESS.
Atchison, Henry F., A. B.	Brooklyn, N. Y.
Austin, Herbert A.	Seattle
Barnes, Charles G.	Goldendale
Benjamin, E. Lee	Seattle
Benjamin, Rial, A. B.	University Station
Bixby, Frank W.	Kalispell, Mont.
Brewer, Merton E.	Walla Walla
Brickey, Willard L.	Avon
Burrows, Charles F.	Green Lake
Campbell, Edmund G.	Seattle
De Bolt, George W.	Green Lake
Devecmon, George W.	Seattle
Douglas, James H., A. B.	Grafton, N. D.
Dykeman, King	Seattle
Egan, Francis M.	Seattle
Ewing, Albert M.	Seattle
Grant, David J.	Seattle
Harris, Pluma M.	Seattle
Jacobson, Albert C.	Long Beach
Joseph, James A., A. B.	Danville, Ind.
Lamping, George B.	Seattle
McAvoy, Charles E.	Seattle
McDonald, Thomas G.	Seattle
Miller, Sinclair	Seattle
Mougin, Albert N.	Seattle
Narvestad, Anton C.	Fremont
Porter, Marcellus F.	Telluride, Colo.
Raine, Edgar C.	Bellevue
Revelle, T. Plummer	Seattle
Revelle, William R.	Seattle
Scott, Charles A.	Seattle
Scott, Thomas S.	Seattle
Sherfy, John H.	Colfax
Shorett, Judson W.	Earling, Ia.
Stevens, Edwin B.	Olympia
Sturdevant, Robert M.	Dayton

NAME.	HOME ADDRESS.
Tanner, Vaughn W	Seattle
Thompson, Wallace H., B. S	Port Townsend
Traphagen, Delmar H	Fenton, Mich.
Tucker, Orville A	Fremont
Turner, Homer E	Seattle
Walthew, Harry M	Seattle
Walthew, John R	Seattle
Ward, Nathan L	Goldendale
Wardall, Raymar M	Topeka, Kan.
Wardall, Max M	Topeka, Kan.
Watkins, Walter H	Spangle
Williams, Walter M	Seattle
Wright, Edgar J., A. B	Fairhaven

PREPARATORY SCHOOL.

Adams, A. Webster	Malden, Mass.
Allen, Eva	Monohan
Anderson, Alice J	Bothell
Anderson, L. Bliss	Bothell
Andrews, Arminyer	Fremont
Armstrong, Fred A	Sande Fuca
Bangs, Walter	Duluth, Minn.
Barshehars, John	Ballard
Bash, C. Clementine	Columbia
Best, William C	Port Gamble
Brackett, George G	Skagway, Alaska
Breniser, Armor H	University Station
Buchanan, Madge S	Issaquah
Cales, Tony F	Bucoda
Campbell, Louise	Burton
Churchill, Vera M	Star Lake
Coburn, Virginia L	Notre Dame, Ind.
Crossley, Camelia	Issaquah
Crossley, Jasmine	Issaquah
Dana, Lee H	Dunlap

NAME.	HOME ADDRESS.
Davis, Fannie L.	Van Asselt
Davis, Lela G.	Van Asselt
Dootson, James W.	Bucoda
Donlan, George A.	Issaquah
Eastlick, May E.	Issaquah
Evenson, Karl I.	Kent
Fleming, Andrew J.	Spokane
Fletcher, James G.	University Station
Fogh, Edgar C.	Roslyn
Ford, Guy N.	Arlington
Forsythe, Millie	Prosser
Gardiner, Alexander M.	North Bend
Garner, Clarence L.	Montesano
Gauntlett, Clinton W.	Unalaska, Alaska
Gauntlett, George W.	Unalaska, Alaska
Gauntlett, James M.	Unalaska, Alaska
Gibson, A Earl	Issaquah
Gruwell, Edna E.	South Bend
Hargreaves, Annie	Weston, Ore.
Hargreaves, Fred	Oregon City, Ore.
Harn, Marguerite E.	Orillia
Hewitt, Charles T.	Green Lake
Hilton, Bailey G.	Everett
Hornsby, Edith M.	Chicago, Ill.
Jabush, Leo	South Park
Jacobs, George B.	Mifflintown, Pa.
Jenkins, Avis	Dunlap
Jensen, Ole J.	Skagway, Alaska
Jones, Frank P.	Edmonds
Judson, Leilla	Lynden
Karr, Arthur T.	Hoquiam
Kelly, Eben	South Park
Kelly, Leah	South Park
Kelsey, Robert W.	O'Brien
Kittredge, Frank A.	Glyndon, Minn.
Knappe, Edward V.	South Aberdeen

University of Washington.

NAME.	HOME ADDRESS.
Knoph, Allo	Dungeness
Lowe, Jessie	Dayton
Mackie, Donald R	Ballard
Martin, Charles T	Fargo, N. D.
McCallister, Grace E	South Park
McCallister, Olive F	South Park
McDonald, Hugh J	Whatcom
McEvers, Hugh A	Snohomish
McEvers, John L	Snohomish
McGee, Etta L	West Seattle
McIntosh, Annie	South Park
McMillan, Marshall J	Walla Walla
McMillan, William J	Walla Walla
Merrill, Lorenzo B	Bridger, Mont.
Montgomery, Winifred	Fort Smith, Ark.
Moran, Jesse T	Arlington
Mortell, Thomas J., Jr	Port Gamble
Olsen, Otto A., Jr	South Park
Oulette, Catherine	O'Brien
Pullen, Daniel D	Skagway, Alaska
Reeves, Ella N	Columbia
Roberts, Braden	Kalama
Robinson, Marion J	Juneau, Alaska
Sargent, Bertha O	Eugene, Ore.
Scherer, Lewis D	Chehalis
Sheldon, Sarah M	Westfield, Mass.
Sheldon, William K., Jr	Westfield, Mass.
Sherrick, Arthur D	Puyallup
Simpson, Bessie A	Kalama
Sinclair, Mark	Ritzville
Starrett, Alfred J	Ravenna
Strough, Harry P	Grafton, W. Va.
Sutherland, Catherine B	Charleston
Sutherland, John	Charleston
Swayze, Olive	Seattle
Sweet, Lester	Blaine

NAME.	HOME ADDRESS.
Tholstrup, Theodore	Bay View
Thomas, Hester L.	Ellensburg
Thompson, Edward B.	Johnson
Underwood, Lewis H.	Port Gamble
Vining, Herbert	Arlington
Way, Walter W.	Everett
West, Melvin	University Station
Whitfield, Jay A.	Kent
Wisby, M. Ella	Eagle Harbor
Wood, Fred W.	San Diego, Cal.

SUMMARY OF ENROLLMENT.

Graduate School	13
College of Liberal Arts	285
College of Engineering	45
School of Mines	51
School of Pharmacy	37
School of Law	68
Preparatory School	102
Total	601

THE ALUMNI ASSOCIATION

OFFICERS FOR THE YEAR 1901-1902.

President ..... Earl Robinson Jenner, A. B., 1895
Vice President ..... Othilia Gertrude Carroll, LL. B., 1901
Secretary ..... David Kelly, B. S., 1899
Treasurer ..... Aubrey Levy, A. B., 1900
Historian ..... Adella M. Parker, A. B., 1893

EXECUTIVE BOARD.

James Edward Gould, Ph. B., 1896, *Chairman.*
Marion Edwards, A. B., 1898.
George A. Coleman, B. S., 1882.
Ralph Day Nichols, Ph. B., 1896.
John Jackol, B. S., 1897.

COMMITTEE ON STUDENT AFFAIRS.

Harry Canby Coffman, A. B., 1899, *Chairman.*
Henry Lindley Reese, A. B., 1899.
Martin Harrais, Ph. B., 1897.

ALUMNI.

COLLEGE OF LIBERAL ARTS.

1876.

Clara (McCarthy) Wilt, B.S. 1326 E St., Tacoma.

1881.

Helen I. (Hall) Wayland, B. S. 2023 Third Ave., Seattle.
Edith (Sanderson) Redfield, B. S. 802 Minor Ave., Seattle.

1882.

Louis F. Anderson, A. B., A. M., Professor of Greek Language and Literature. Whitman College, Walla Walla, Washington.

George A. Coleman, B. S., machinist. Third Ave. and Columbia St., Seattle.

George H. Judson, B. S. (died May 18, 1891.)

Lelia A. (Shorey) Kilbourne, B. S. 1203 Summit Ave., Seattle.

1883.

H. O. Chipman, B. S. (died March 4, 1887.)

Carrie V. (Palmer) Denny, B. S. (died December 17, 1891.)

1884.

Anna F. (Sparling) Olmstead, B. S., B. P., teacher. British Columbia.

1885.

Agnes M. (Greene) Veazie, B. S. 695 Hoyt St., Portland, Oregon.

Louise M. (Root) Dement, B. S. Astoria, Oregon.

Hettie Louise (Greene) Camp, B. S. 515 Bell St., Seattle.

Charles Vancouver Piper, B. S., M. S., Professor of Biology. Washington Agricultural College and School of Science, Pullman, Washington.

Edmond Stephen Meany, B. S., M. S.; M. L., University of Wisconsin. Professor of History and Instructor in Forestry, University of Washington, Seattle.

John Huntington, B. S., M. D., physician. Starbuck, Washington.

1886.

Elisha H. Alvord, A. B., 811 Second Ave., Seattle.

E. Emma (Clark) Pratt, A. B., A. M., Joliet, Illinois.

James F. McElroy, B. S., attorney at law, 2008 Fifth Ave., Seattle.

Matthew H. Gormly, B. S., City Treasurer, 211 Taylor Ave., Seattle.

1887.

Edwin Victor Biglow, A. B., A. M., Pastor of the Eliot Congregational Church, Lowell, Massachusetts.

Nellie E. (Powell) Drumheller, A. B., 1002 Jerome Ave., Spokane.

Florence M. Adams, A. B., teacher, 1138 Thirty-fourth Ave., Seattle.

James W. Porter, B. S., (died March 3, 1888.)

Edward T. Powell, B. S., Portland, Oregon.

Anna (McDiarmid) McLerman, B. S., Seattle.

14

1888.

Morris E. Adams, B. S., (died June 8, 1890.)

Charles A. Kinnear, B. S., attorney at law, 809 Queen Anne Ave., Seattle.

Ida (Soule) Kuhn, B. S., M. S., Hoquiam, Washington.

Depalmer G. Wakefield, B. S., LaConner, Washington.

Annie E. (Willard) Hines, B. S., Seattle.

1889.

Ruth Gatch, A. B., (died November 4, 1889.)

Royal T. Hawley, A. B., Post-Intelligencer office, 1619 Nob Hill Ave., Seattle.

Charles Clarence Ward, B. S., with George F. Cotterill, 1225 Sixth Ave., W., Seattle.

Fanny L. (Churchill) Furber, B. S., 501 Roy St., Seattle.

1891.

Francis A. Noble, B. S., attorney at law, 210 Taylor Ave., Seattle.

Maud L. Parker, A. B., student, School of Medicine, University of Michigan. Ann Arbor, Mich.

Daniel Ellis Douty, B. S.; Ph. D. (Clark University), 1901. Head of Department of Mathematics, Physics, and Chemistry. Seattle High School, Seattle.

John A. Kellogg, B. S., attorney at law. Northport, Wash.

Adelaide G. Nickels, B. S., B. P., teacher. 702 Minor Ave., Seattle.

Minnie J. (Pelton) White, B. S., M. S. 427 Summit Ave., North, Seattle.

J. Herman Schirmer, B. S. Vancouver, Wash.

1893.

Winnifred (Ewing) Johnson, A. B., B. P. 1328 First Ave., Seattle.

Grace Gatch, A. B. Corvallis, Oregon.

Beatrice A. (Karr) McNeil, A. B., B. P., 1894. Aberdeen, Wash.

Adella M. Parker, A. B., Instructor in Civics and Political Economy, Seattle High School. 1007 Boren Ave., Seattle.

F. Otto Collings, A. B., Superintendent of Caribou Gold Mines, Caribou, Nova Scotia.

1894.

Roger Sherman Greene, jr., A. B., B. P. Dawson, N. W. T.

Adelbert Ernest Pierce, A. B. Berkeley, California.

Albert Roderick Sprague, A. B., City Editor, The Olympian, Olympia, Wash.

Helen May (Anthony) Corey, B. S., Ph. G., 1896. Northport, Wash.

Merrit Ernest Durham, B. S., Principal of Schools, Bothell, Washington.

Mettie (Heaton) Durham, B. S. Bothell, Wash.

Annie Jennie Pelton, B. S., B. P., teacher. Garfield and Fifth Avenues North, Seattle.

John Edwin Porter, B. S., Superintendent of Chelan County Schools. Wenatchee, Wash.

Horace Amos Turner, B. S. Electrical Engineer's Office, Seattle Electric Company. 2102 Sixth Ave.

Delton Alton Ford, B. P. Snohomish, Wash.

1895.

Helen Burrows (Hubbard) Smith, A. B. (died April 4, 1902.)

Anna Rayfield (Pearsons) Williams, A. B. San Francisco, Cal.

Earl Robinson Jenner, A. B., with Booth-Whittlesey Abstract Co., Seattle.

Erastus Phillips Dearborn, A. B., with the Hambach Co., 754 Lakeview Ave., Seattle.

Isaac Phillips Morrison, A. B., with W. D. Hofius, Agent of the Illinois Steel Company. 1315 Terry Ave., Seattle.

Harriet Alice Howell, B. P., Instructor in Elocution. University of Nebraska, Lincoln, Neb.

Hilda Leonard Waughop, B. P., teacher. 116 Twenty-third Ave., Seattle.

Charlotte Ruth (Karr) McKee, B. P., A. B., 1896, A. M., 1898. Honolulu, T. H.

Myra Brewster Clarke, B. P., teacher. 1293 Amsterdam Ave., New York.

Bartie Reginald McElreath, B. P., teacher. Principal of Schools. South Seattle.

Martha Wiley, B. P. Tacoma, Wash.

Kate Skannon Williams, B. P., teacher. Walla, Walla, Wash.

1896.

Tom Marie Alderson, A. B., student, Stanford University. Mayfield, Cal.

George Merritt Allen, A. B., editor of Klondike Nugget. Dawson, N. W. T.

William Henry Beatty, A. B. Dawson City, N. W. T.

Frederick Richie Bechdolt, A. B., reporter for Post Intelligencer. Seattle.

Albert Seldon Burrows, A. B., Instructor in Latin, Seattle High School. Bellevue, Wash.

Harry Farmer Giles, A. B., A. M., Principal of the High School, Ballard, Wash. 706 Kilbourne Ave., Fremont.

Lydia Ezma Lovering, A. B., teacher. 403 E. Lynn St., Seattle.

John Chisholm Dickson, B. S., Superintendent of Schools, Ballard, Wash.

John Hoegh Graff, B. S., Northern Pacific Railway Survey in Idaho. 500 22d Ave., South Seattle.

John Haan, B. S., (died March 1, 1898.)

Robert Wesley Jones, B. S., engineer, Canadian Pacific Railway. 208 Main St., Winnipeg, Can.

Ina Irena Pratt, B. S., teacher, Ballard High School. University Station, Seattle.

Francis Ell Burnham Smith, B. S. Dawson, N. W. T.

Arthur Joseph Collins, A. B., Ph. B., District Superintendent of Schools. Sheffield, Mass.

James Edward Gould, Ph. B., Principal of the Preparatory School, University of Washington. 2206 Second Ave., North, Seattle.

Madison Monroe Moss, Ph. B., Educational Director of the Young Men's Christian Association, Seattle.

Ralph Day Nichols, Ph. B., attorney at law in Seattle. Columbia City.

Agnes (Ward) Lively, Ph. B., Portland, Oregon.

1897.

Arthur Manvel Dailey, Ph. B. Kalamazoo, Michigan.

Martin Harrais, Ph. B. Dawson, N. W. T.

Arthur Howard Hutchison, A. B., merchant. Second Ave. and Union St., Seattle.

Frank Dean Frazer, B. S., A. M. (Princeton, 1898), graduate student. University of Chicago, Chicago, Ill.

Ruth (Harrington) Stafford, B. S. 232 Harvard Ave. North, Seattle.

John Jackol, B. S., A. M.; assistant and graduate student, Rush Medical College, Chicago, Ill.

Theodore Martel Jenner, B. S., with Osborne, Tremper Co. 1009 Seventh Ave., North, Seattle.

Theodore Johnson Ludlow, B. S., miner. 1710 Bush St., San Francisco, Cal.

Oscar Albert Piper, B. S., United States Engineer. Burke Building, Seattle.

Walter Scott Wheeler, B. S., City Franchise Inspector. 2315 Fourth Ave., Seattle.

1898.

Clara Josephine Bailey, Ph. B. (died, 1899.)

Bethesda Irene Beals, Ph. B., Professor of English, State Normal School, Ellensburg, Wash.

Mary Rathbun Button, A. B., Instructor in Latin, Seattle High School, Seattle.

Edward Adolph Crueger, B. S., Superintendent of Schools, Mt. Vernon, Wash.

Marion Edwards, A. B., attorney at law, with Peters & Powell. Dexter-Horton Bldg., Seattle.

Cora Lena Goodman, B. S., teacher in the High School, Everett, Wash.

William Hay Karr, B. S., farmer. Hoquiam, Wash.

Warner Melvin Karshner, B. S., student, Medical School, Northwestern University. Chicago, Ill.

Laura Dell (McFarland) Tripp, Ph. B. Seventh and Pike Sts., Seattle.

Edward McMahon, Ph. B., graduate student, University of California. Berkeley, Cal.

Thomas Floyd Murphine, Ph. B., farmer. Stanwood, Wash.

Bettie Parsons, A. B. McLean Hospital, San Francisco, Cal.

James Smith Sheafe, B. S., graduate student. Massachusetts Institute of Technology, Boston, Mass.

Mary Agnes Skinner, Ph. B. The Rainier, Seattle.

Charles Wood Sutton, B. S., engineer. Chester, Pa.

Helen Pack Wilson, Ph. B. 920 Queen Anne Ave., Seattle.

Heartie Wood, A. B. 315 Lenora St., Seattle.

1899.

Jessie B. Allen, A. B., A. M., fellow, University of Chicago, Chicago, Ill.

Arthur C. Ballard, A. B., teacher, Klickitat Academy, Goldendale, Wash.

Anna C. Boyd, A. B. Thirty-fourth Ave. and Madison St., Seattle.

Blanche Brooks, A. B., teacher, Fremont Station, Seattle.

Thomas F. Brownscombe, A. B. (Pomona College, 1898), A. M., teacher, High School, National City, Cal.

Ina L. Carpenter, A. B., A. M., Principal of Schools. Port Blakeley, Wash.

Harry C. Coffman, A. B., Librarian. University of Washington, Seattle.

Ross E. Chestnut, A. B., mining broker. Seattle.

Jackson B. Corbet, jr., A. B., reporter for Post-Intelligencer. 616 Union St., Seattle.

Arthur C. Crookall, A. B.; M. D. (Gross Medical College.) Prescott, Arizona.

Luella M. Dean, A. B., A. M. 2306 Fifth Ave., Seattle.

Charles A. Fowler, A. B., reporter for Argus. 1504 Eighteenth Ave., Seattle.

Elizabeth H. Frye, A. B., A. M. 520 Pike St., Seattle.

Mae R. Goodman, A. B., teacher. Puyallup, Wash.

Frank P. Giles, A. B., druggist. Ninth Ave. and Jackson St., Seattle, Wash.

Jacob L. Gottstein, A. B., with M. & K. Gottstein, wholesalers. 108 W. Yesler Way, Seattle, Wash.

Walter S. Griswold, A. B., student, Medical School, Northwestern University. Chicago, Ill.

Thomas M. Gunn, A. B., A. M., draughtsman, City Engineer's Office, Seattle.

Henry R. Harriman, A. B., LL. B., attorney at law. 212 Washington Bldg., Seattle.

Caroline E. Horton, A. B., A. M. 1206 Third Ave., Seattle.

Louise A. Iffland, A. B., Instructor in Port Townsend High School. Port Townsend, Wash.

Eunice V. Karr, A. B. Hoquiam, Wash.

Clarence M. Larson, A. B., draughtsman, City Engineer's Office. Seattle.

Ethel M. Leake, A. B., teacher. Seattle.

Verna L. Leeman, A. B., teacher, High School. Mt. Vernon, Wash.

Elizabeth Metcalf, A. B., teacher. Snoqualmie, Wash.

Don H. Palmer, A. B., student. Rush Medical College, Chicago, Ill.

Olivia C. (Peck) Densmore, A. B. 1620 Kilbourne Ave., Fremont.

Agnes L. Reagh, A. B., teacher. Ballard, Wash.

Henry L. Reese, A. B., A. M., student, Medical School, Northwestern University. Chicago, Ill.

Harry L. Richardson, A. B., student. Conservatory of Music, Ithaca, N. Y.

Emma B. (Roll) Edwards, A. B. 2101 East Union St., Seattle.

Audrey B. Souder, A. B., A. M., University Station, Seattle.

Theresa (Schmid) McMahon, A. B., A. M. Berkeley, Cal.

Annie A. Sloan, A. B., teacher in South Park, Wash. Sixth Ave, near Marion St., Seattle.

Permilla (Thomas) Alderson, A. B. Mayfield, Cal.

Lucius O. Veser, A. B., graduate student, Cornell University. Ithaca, N. Y.

Mable Ward, A. B., teacher. Ballard, 1225 Sixth Ave. West, Seattle.

Sarah L. Waughop, A. B. teacher. 116 Twenty-third Ave., Seattle.

Cyrus A. Whipple, A. B., graduate student, Cornell University. Ithaca, N. Y.

Sara A. Williams, A. B. 402 Highland Drive, Seattle.

Anne C. Winters, A. B., teacher, Van Asselt. 1113 Ninth Ave., Seattle.

Jinta Yamaguchi, A. B., A. M., secretary to Postmaster General of Japan.

Albert M. Anderson, B. S. Atlin, B. C.

Walter R. Coffman, B. S., student. Cooper Medical College, San Francisco, Cal.

David Kelly, B. S., A. M., Assistant Professor of Physics. University of Washington, Seattle.

Trevor C. D. Kincaid, B. S., A. M., Professor of Zoology. University of Washington, Seattle.

Burke Smith, B. S., Fellow in Mathematics, Yale University. New Haven, Conn.

William G. Turnbull, B. S., lumberman. Kent, Wash.

Arthur S. Wilson, B. S., civil engineer, with Nicholson & Bullard, Fidelity Bldg., Tacoma, Wash.

Isadore R. Singerman, B. S., with Toklas & Singerman, Seattle.

Ella B. Varnes, A. B. (Vassar College, 1882), A. M., Seattle.

1900.

Ella B. Allen, A. B., teacher, High School. Aberdeen, Wash.

Harold J. M. Baker, B. S., graduate student, Cornell University. Ithaca, New York.

James Barkley, A. B., graduate student, University of California. Berkeley, Cal.

Jessie Barlow, B. S., teacher. South Eighth and J Sts., Tacoma, Wash.

Tony M. Barlow, A. B., student, North Pacific Dental College. Portland, Ore.

Kathryn E. Case, A. B., teacher. Everett, Wash.

Myra B. Clark, A. B., teacher. 1293 Amsterdam Ave., New York.

Emma E. (Crueger) Patrick, A. B. Pilchuck, Wash.

Ella R. Dougan, A. B. 702 Pike St., Seattle.

Thomas T. Edmunds, A. B. Ballard.

Lulu Fuller, A. B., teacher. 139 Twenty-fourth Ave., Seattle.

Nathaniel L. Gardner, B. S., Assistant in Botany, University of California, Berkeley, Cal.

William W. Gillette, A. B., A. M., Superintendent of Schools. Kalispell, Mont.

Grace Glasgow, A. B., teacher in High School. Fairhaven, Wash.

Climie E. Hill, B. S., graduate student, University of Washington. 1633 Bellevue Ave., Seattle.

Stirling B. Hill, B. S., Scholar in Civil Engineering, Cornell University. Ithaca, N. Y.

Robert H. Hopkins, A. B., electrician. Ballard.

Hans M. Korstad, A. B., A. M., Principal of Schools. Gate City, Wash.

Aubrey Levy, A. B., LL. B. 1104 Minor Ave., Seattle.

Thomas W. Lough, A. B., Assistant Professor of Chemistry and Pharmacy. University of Washington, Seattle.

William J. Meredith, A. B., Registrar and Associate Professor of English. University of Washington, Seattle.

Anne Mitchell, A. B., teacher. Olympia, Wash.

Thomas W. Mitchell, A. B., Fellow in Economics, University of Wisconsin. Madison, Wis.

Walter F. Morrison, A. B., student, Law School, University of Michigan. Ann Arbor, Mich.

Ernest W. Schoder, B. S., Fellow in Civil Engineering, Cornell University. Ithaca, N. Y.

John C. Storey, A. B., graduate student, University of Washington. Seattle.

Frances C. Sylvester, A. B., teacher. Aberdeen, Wash.

Bella Weretnikove, A. B., attorney at law. 1900 Minor Ave., Seattle.

Ethel B. White, A. B., Vice Principal, High School. Fairhaven, Wash.

George E. St. John, A. B. (Stanford University, 1896), A. M., Superintendent of City Schools, Everett, Wash.

1901.

Ottilie G. Boetzkes, A. B., A. M., Instructor in Modern Languages, University of Washington, Seattle.

Glenn W. Caulkins, A. B., Superintendent of Schools. Gubat, P. I.

Goldie I. (Evans) Mudgett, A. B. Pilchuck, Wash.

Charles E. Gaches, A. B., Instructor in Civil Engineering, University of Washington, Seattle.

Paul Hopkins, B. S., A. M., graduate student, University of Washington, Seattle.

Anna Hubert, A. B., Assistant in German, University of Washington, Seattle.

Ralph M. Johnson, B. S., Seattle Electric Company, Post Street Station, Seattle.

Zoe R. Kincaid, A. B., University Station, Seattle.

Mattie R. Leavitt, A. B., Molalla, Oregon.

Luther Le Sourd, A. B., University Station, Seattle.

Charles A. Lindbery, A. B., Whatcom, Wash.

Charles McCann, A. B., student, School of Law, University of Washington, Seattle.

Clarence McDonald, A. B., Superintendent of Schools, Gubat, P. I.

Daniel A. Millett, A. B., student, Law School, Columbia University, New York.

George R. Page, A. B., student, School of Pharmacy, University of Washington, Seattle.

Edith G. Prosch, A. B., A. M. 621 Ninth Ave., Seattle.

Carl H. Reeves, A. B., draughtsman, City Engineer's Office, Seattle.

Guy H. Robertson, A. B., reporter, The Washingtonian, Seattle.

Stephen P. Rowell, A. B., graduate student, University of Washington. 527 Pontius Ave., Seattle.

Charles A. Ruddy, A. B., Assistant, State Geological Survey, University Station, Seattle.

May Thompson, A. B., graduate student, Wellesley College, Massachusetts.

Glen H. Trout, A. B., graduate student, University of Washington, Seattle.

Arthur C. Vail, A. B., Pastor of the Christian Church. North Yakima, Wash.

Edgar J. Wright, A. B., Pacific American Fisheries Co., Burch Bay Camp. Fairhaven, Wash.

NORMAL GRADUATES.

1880.

Ada L. George. Albany, Oregon.
Clara E. (Lombard) Colkett. Seattle, Wash.
Luella J. (Wittenmyer) Hurd. Juanita, Wash.

1881.

Flora A. (Phelps) Beeman. University Station, Seattle.
Mattie S. (Wade) Kyes. Kent, Wash.

1882.

Lizzie S. (Anderson) Davis. Tacoma.
Addie J. (Plummer) Mathiewson. Lodi, California.

1884.

Louise M. (Root) Dement, B. S., 1885. Astoria, Oregon.

1885.

Fannie E. Emery. 804 Summit Ave., Seattle.
Iva J. (Jones) Kendrick. 3346 Clay St., San Francisco, Cal.
Hessie E. (Cox) Hastings. Seattle.
Sarah Elizabeth (Ward) Meany. Seattle.

1886.

Hattie M. Kellogg, teacher. Seattle.
Colinta Cabanski. Seattle.

1887.

Anna L. Cristopher, teacher. Marion, Oregon.
Florence A. (Ledger) Whitford. Seattle.
Gladys Austin, teacher. Whatcom.
Thomas Hayton, merchant. La Conner.

Albert W. Buddress, attorney at law. Port Townsend.

1888.

Nellie (Clayton) Sands. Tacoma.

Jay D. Dean, editor of The Washingtonian. Hoquiam, Wash.

Rebecca (Gaines) James. Sonoma, Cal.

Josie Jackling, teacher. 702 Minor Ave., Seattle.

Alice A. (Parker) Carter. Honolulu, T. H.

Ida (Soule) Kuhn, B. S., 1888, M. S., 1895. Hoquiam, Wash.

1889.

Louise H. (Monroe) Walton. Tacoma.

Agnes M. (Goddard) Gordon. Seattle.

1890.

Beatrice A. (Karr) McNeil, A. B., 1893, B. P., 1894. Aberdeen, Wash.

Lulu J. Thompson. Eagle City, Alaska.

1891.

Isabel R. (Dikeman) Pear. Sprague, Wash.

Isabel (McDiarmid) Winter. 2770 Hoyt Ave., Everett, Wash.

Helen E. Taylor. Seattle.

1892.

Marguerite A. Baldwin, student, Cooper Medical College. San Francisco, Cal.

Vesta M. Baldwin, teacher. 1109 Eighth Ave., Seattle.

Harriet P. Griswold. Seattle.

Maude L. Parker, A. B., 1892, student, Medical School, University of Michigan, Ann Arbor, Mich.

Minnie J. (Pelton) White, B. S., 1892, M. S., 1895. 427 Summit Ave. North, Seattle.

Lillian (Keen) Le Ballister. Seattle.

1894.

Carrie Grimes Davis, teacher. 4301 Brooklyn Ave., University Station, Seattle.

Olive May Hubbard, teacher in Sumner School. Puyallup.

James Frank Medearis, Lieutenant Colonel of Arkansas Volunteers, United States Army.

1895.

Ingie Marie Lee, teacher. Ballard, Wash.

Rena Bee Talmadge, teacher. 923 Twenty-first Ave., Seattle.

Clara May (Talmadge) Bean. Monarch, Mont.

Alice Penfield, teacher. 720 Pine St., Seattle.

Charlotte Ruth (Karr) McKee, B. P., 1895, A. B., 1896, A. M. 1898. Honolulu, T. H.

1896.

Lois Medora Adams. Seattle.

Albert Selden Burrows, A. B., 1896, teacher, Seattle High School. Bellevue, Wash.

Margaret Ellen (Crane) Meydenbauer, teacher. 1411 Lynden Ave., Seattle.

Ollie Doke (Davis) Shoudy. Ellensburg, Wash.

John Chisholm Dickson, B. S., 1896, Superintendent of Schools. Ballard, Wash.

Madison Monroe Moss, Ph. B., 1896, Director of Educational Department, Young Men's Christian Association. Seattle.

Ina Irena Pratt, B. S., 1896, Instructor in Ballard High School. University Station, Seattle.

Francis Ell Burnham Smith, B. S., 1896. Dawson, N. W. T

Agnes (Ward) Lively, Ph. B., 1896. Portland, Oregon.

Sarah Prince Warren, teacher. 318 Twenty-fourth Ave., Seattle.

1897.

Arthur Manvel Dailey, Ph. B. Kalamazoo, Mich.

Grace Gatch, A. B., 1893. Corvallis, Oregon.

Ruth (Harrington) Stafford, B. S., 1897. 232 Harvard Ave. North, Seattle.

John Edwin Porter, B. S., Superintendent of Schools for Chelan County. Wenatchee, Wash.

1898.

Clara Josephine Bailey, Ph. B., 1898, (died, 1899.)

Bethesda Irene Beals, Ph. B., 1898. Professor of English, State Normal School, Ellensburg, Wash.

Marion Edwards, A. B., 1898, attorney at law, with Peters & Powell. Seattle.

Cora Lena Goodman, B. S., 1898, teacher, High School. Everett, Wash.

Warner Melvin Karshner, B. S., 1898, student, Medical School, Northwestern University, Chicago, Ill.

Laura Dell (McFarland) Tripp, Ph. B., 1898. Seattle.

Mary Agnes Skinner, Ph. B., 1898. The Rainier, Seattle.

James Edward Gould, Ph. B., 1896, Principal of Preparatory School, University of Washington.

1899.

Jessie B. Allen, A. B., fellow and graduate student, University of Chicago. Chicago, Ill.

Anna C. Boyd, A. B., teacher, Thirty-fourth Ave. and Madison St., Seattle.

Blanche Brooks, A. B., teacher. Fremont.

Thomas F. Brownscombe, A. B. (Pomona College, 1898), A. M., teacher, High School. National City, Cal.

Ina L. Carpenter, A. B., teacher. Ballard.

Luella M. Dean, A. B. 2306 Fifth Ave., Seattle.

Elizabeth H. Frye, A. B., A. M. 520 Pike St., Seattle.

Mae R. Goodman, A. B., teacher, High School. Puyallup, Wash.

Louise A. Iffland, A. B., teacher, High School, Port Townsend, Wash.

Eunice V. Karr, A. B. Hoquiam.

Clarence M. Larson, A. B., draughtsman, City Engineer's Office. Seattle.

Verna L. Leeman, A. B., teacher, High School. Mt. Vernon, Wash.

Ethel M. Leake, A. B., teacher. Seattle.

Elizabeth Metcalf, A. B., teacher. Snoqualmie.

Don H. Palmer, A. B., student. Rush Medical College, Chicago, Ill.

Olivia C. (Peck) Densmore, A. B., Fremont Station, Seattle.

Henry L. Reese, A. B., A. M., student, Medical School, Northwestern University, Chicago, Ill.

Harry L. Richardson, A. B., student. Conservatory of Music, Ithaca, N. Y.

Emma B. (Roll) Edwards, A. B. 2101 East Union St., Seattle.

Anna A. Sloan, A. B., teacher. South Park.

Permilla (Thomas) Alderson, A. B. Mayfield, Cal.

Sarah L. Waughop, A. B., teacher. Seattle.

Cyrus A. Whipple, A. B., graduate student, Cornell University, Ithaca, N. Y.

Anna C. Winters, A. B., teacher, Van Asselt. Seattle.

1900.

Ella B. Allen, A. B., teacher, High School, Aberdeen, Wash.

Jessie Barlow, A. B., teacher. 722 J St., Tacoma.

James Barkley, A. B., graduate student, University of California, Berkeley, Cal.

Kathryn E. Case, A. B., teacher. Snohomish.

Emma E. (Crueger) Patrick, A. B. Pilchuck.

Ella R. Dougan, A. B. 710 Pike St., Seattle.

Lulu Fuller, A. B., teacher. 139 Twenty-fourth Ave., Seattle.

William W. Gillette, A. B., A. M., Superintendent of Schools, Kalispell, Mont.

Elizabeth M. Herren, teacher. 812 Highland Drive, Seattle.

Mary H. Huntoon, teacher, Queen Anne School. 1120A Pike St., Seattle.

Hans M. Korstad, A. B., A. M., Principal of Schools, Gate City, Wash.

Ella E. Lewis, teacher. 415 East Denny Way, Seattle.

William J. Meredith, A. B., Registrar and Associate Professor of English. University of Washington, Seattle.

Winifred H. Megrath, teacher. Sedro-Woolley, Wash.

Alice M. Porter, student. University of Washington, Seattle.

Francis C. Sylvester, A. B., teacher, Aberdeen, Wash.

Bella Weretnikove, A. B., LL. B., attorney at law. 1900 Minor Ave., Seattle.

Ethel B. White, A. B., Assistant Principal, High School, Fairhaven.

1901.

Ottilie G. Boetzkes, A. B., A. M., Instructor in Modern Languages, University of Washington, Seattle.

J. Elmer Bovey, student, University of Washington, Seattle.

Mabel Chilberg, teacher. West Seattle.

Goldie I. (Evans) Mudgett, A. B., Pilchuck, Wash.

Aimee Farnsworth. 1532 Second Ave., Seattle.

Ida H. Gow, teacher. 1621 Fourteenth Ave., Seattle.

Margaret E. Gow, teacher. 1621 Fourteenth Ave., Seattle.

Ivy Hall. 127 Nob Hill Ave., Seattle.

Verona Herndon, teacher. Chehalis, Wash.

Sara R. Howard, teacher. 1129 Thirteenth Ave. South, Seattle.

Anna Hubert, A. B., Instructor in German, University of Washington, Seattle.

Lillian B. Knight, teacher. Edmonds, Wash.

Elizabeth Larimer, teacher. Christopher, Wash.

Mattie R. Leavitt, A. B., Molalla, Oregon.

Luther Le Sourd, A. B. University Station, Seattle.

William P. Littlefield, clerk. Louch, Augustine, and Company, First Ave., Seattle.

E. Pearl McDonnell, A. B., cataloguer in Library, University of Washington, Seattle.

Ella F. Meagher, County Superintendent of Schools. Coupeville, Wash.

Maie E. Meagher, teacher. Clinton, Island County, Wash.

Sophie D. Peterson, teacher. Port Townsend, Wash.

Arthur C. Vail, A. B., Pastor of the Christian Church, North Yakima, Wash.

Linnie W. Wiley, teacher. Ballard, Wash.

COLLEGE OF ENGINEERING.

1901.

Stirling B. Hill, B. S. (in Civil Engineering), Scholar in Civil Engineering, Cornell University, Ithaca, N. Y.

SCHOOL OF MINES.

1900.

Ernest W. Schoder, B. S. (in Mining Engineering), Fellow in Civil Engineering, Cornell University, Ithaca, N. Y.

1901.

Alton W. Lane, B. S. (in Mining Engineering.) 520 Eastlake Ave., Seattle.

Walter H. Tiedeman, B. S. (in Mining Engineering), draughtsman, City Engineer's Office, Seattle. Ballard, Wash.

SCHOOL OF LAW.

1901.

Walter B. Beals, LL. B., with Robinson and Rowell, 25 Haller Bldg., Seattle.

William S. Bell, LL. B., clerk, Railway Mail Service. 342 Seventeenth Ave., North, Seattle.

Otis W. Brinker, LL. B., attorney at law, 16 Dexter Horton Bank Bldg., Seattle.

Vivian M. Carkeek, LL. B., attorney at law, 16 Dexter Horton Bank Bldg., Seattle.

Othilia G. Carroll, LL. B. 1432 Sixteenth Ave., Seattle.

Eugene A. Childe, LL. B., attorney at law, 16 Dexter Horton Bank Bldg., Seattle.

James T. Cowles, LL. B., attorney at law. Circle City, Alaska.

William Dwyer, LL. B., attorney at law. Clealum, Wash.

Frank A. Groundwater, LL. B., Port Gamble, Wash.

Henry R. Harriman, A. B., LL. B., attorney at law, Washington Bldg., Seattle.

Gottlieb E. Steiner, LL. B., attorney at law, 14 Haller Bldg., Seattle.

John Stringer, LL. B., 108 Thirteenth Ave. North, Seattle.

George Thomson, LL. B., Principal, Acme Business College, Seattle.

Bella Weretnikove, A. B., LL. B., attorney at law, New York Blk., Seattle.

Sidney J. Williams, LL. B., City Attorney, Renton, Wash. 408 Burke Bldg., Seattle.

SCHOOL OF PHARMACY.

1896.

Helen May (Anthony) Corey, B. S., 1894, Ph. G. Northport, Wash.

Eva Maud (Campbell) Corliss, Ph. G. York Station, Seattle.

Arthur Clifton Crookall, Ph. G., A. B., 1899; M. D., (Gross Medical College). Prescott, Arizona.

Virginia Mackay Elder, Ph. G., druggist. Houghton, Wash.

Charles Sumner Leas, Ph. G. Honolulu, T. H.

Thomas Warner Lough, Ph. G., Assistant Professor of Chemistry and Pharmacy. University of Washington, Seattle.

James Miller McMurry, Ph. G., photographer. Port Townsend, Wash.

Harry Lowther Richardson, Ph. G., A. B., 1899, student, Conservatory of Music, Ithaca, N. Y.

August Christian Rosenveldt, Ph. G., pharmacist. Second and Madison Aves., Seattle.

Walter Rutz, Ph. G., proprietor of Lawrence Street Pharmacy. Port Townsend, Wash.

Harold Walter Walton, Ph. G., druggist. Leadville, Colorado.

1897.

Arthur Willis Barton, Ph. G. Seattle.

Rosamonde Lucile (Crane) Tozer, Ph. G., Newport, R. I.

Frank Price Giles, Ph. G., A. B., 1899, druggist. Ninth Ave. and Jackson St., Seattle, Wash.

1899.

Walter R. Coffman, Ph. G., B. S., student. Cooper Medical College, San Francisco, Cal.

1901.

Glenn R. Fetterman, Ph. G., druggist. Fremont Station, Seattle.

Charles McClean Gray, Ph. G., druggist. Seattle.

Helen F. Jennings, certificate, druggist. La Conner, Wash.

George W. Swift, Ph. G., druggist, Leithead's Pharmacy, First Ave., Seattle.

Allison T. Wanamaker, Ph. G., druggist. Seattle.

BUSINESS GRADUATES.

1880.

W. John Colkett, Assistant Postmaster. Seattle.

1881.

David E. Bigelow, mechanic. Berkeley, Cal.

1883.

John Huntington, B. S., 1885; M. D. (University of Oregon), 1888; physician. Starbuck, Wash.

1887.

Malinda A. (Watson) Williams. Spokane, Wash.

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The Christian Associations have issued a neat handbook of the University of Washington, which will be sent free of cost, to any one intending to enter the University, upon application to R. L. Ewing, University Station, Seattle, Wash.