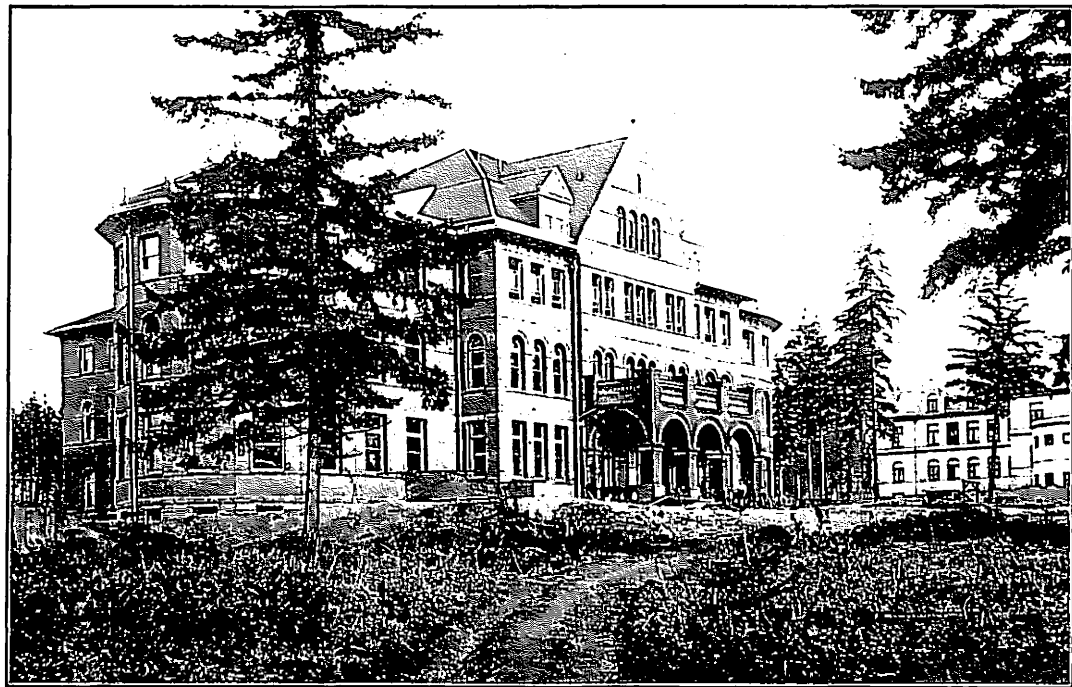
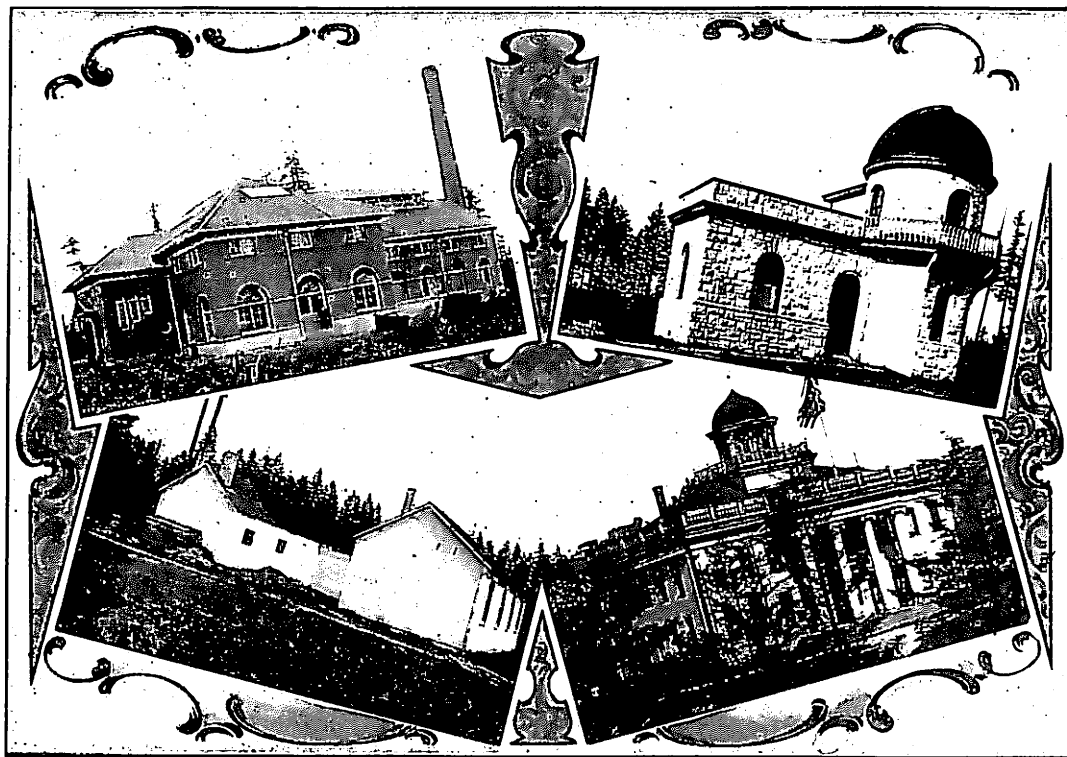


FRONT VIEW OF THE ADMINISTRATION BUILDING

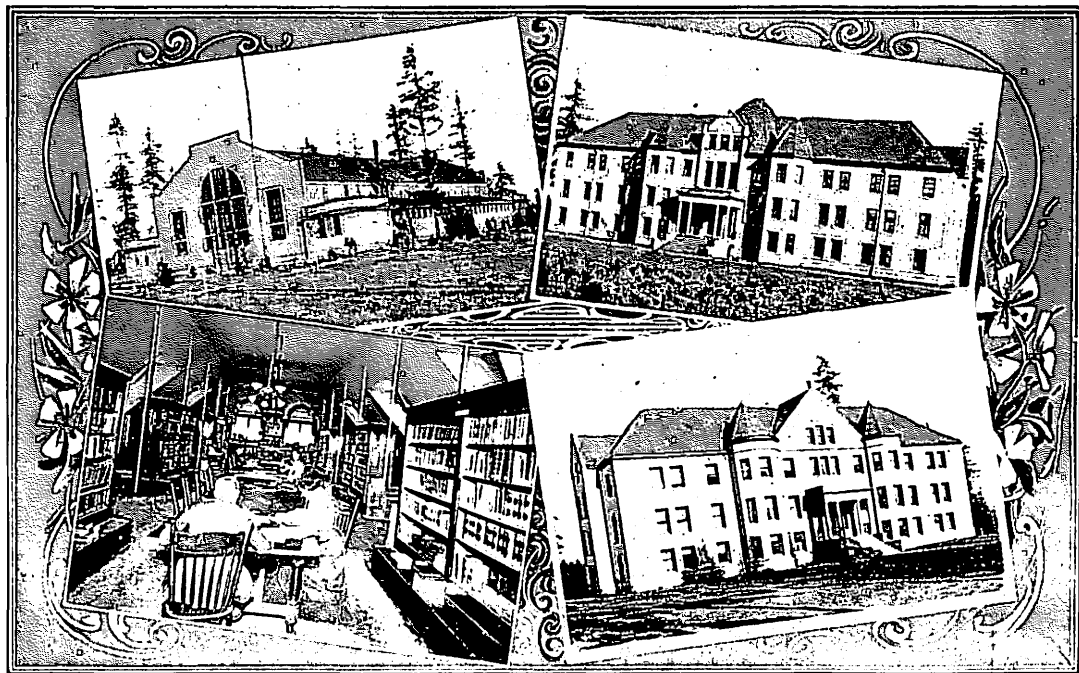


SCIENCE HALL



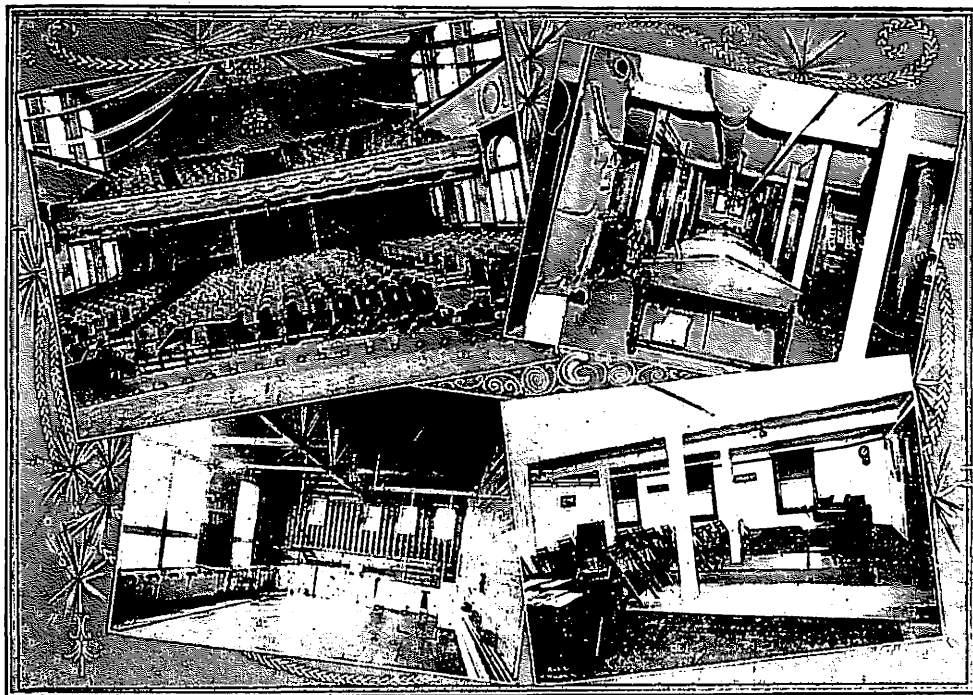
POWER HOUSE AND MACHINE SHOP.  
ASSAY SHOPS

OBSERVATORY  
OLD LAW BUILDING



GYMNASIUM AND ARMORY  
INTERIOR OF MAIN LIBRARY

WOMENS' HALL  
MEN'S HALL



DENNY HALL  
INTERIOR OF GYMNASIUM

PORTION OF MUSEUM  
YOUNG MEN'S CHRISTIAN ASSOCIATION

CATALOGUE FOR 1902-1903

—AND—

ANNOUNCEMENTS FOR 1903-1904

—OF THE—

UNIVERSITY OF WASHINGTON



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SEATTLE, WASHINGTON

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SEATTLE, WASH.  
PIONEER PRINTING COMPANY  
1903

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# GENERAL CALENDAR

1903

JULY.

S	M	T	W	T	F	S
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NOVEMBER.

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DECEMBER.

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1904

JANUARY.

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FEBRUARY.

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MAY.

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JUNE.

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19	20	21	22	23	24	25
26	27	28	29	30	..	..

# UNIVERSITY CALENDAR

For 1903-1904.

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## FIRST SEMESTER.

Examinations for Admission..Monday, Sept. 21.  
Registration Days .....Monday, Tuesday, Sept. 21, 22.  
Recitations Begin .....Wednesday, Sept. 23.  
Thanksgiving Vacation.....Nov. 26—Nov. 29.  
Holiday Vacation .....Dec. 19—Jan. 3.  
Semester Examinations .....Feb. 3, 4, 5.  
First Semester Closes .....Friday, Feb. 5.

---

## SECOND SEMESTER.

Semester Begins .....Monday, Feb. 8.  
Easter Vacation .....March 26—April 3.  
Semester Examinations .....June 8, 9, 10.  
Baccalaureate Sermon .....Sunday, June 12.  
Commencement .....10:30 a. m., Wed., June 15.  
Alumni Dinner .....1:00 p. m., Wed., June 15.

## THE BOARD OF REGENTS.

---

Hon. JAMES Z. MOORE, President .....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.

Hon. GEORGE H. KING ..... Seattle  
Term Expires, 1908.

Hon. ALDEN J. BLETHEN ..... Seattle  
Term Expires, 1909.

WILLIAM MARKHAM, Secretary of the Board.

## **Standing Committees of the Board of Regents.**

---

### **Executive.**

JAMES Z. MOORE, Chairman.  
JAMES E. BELL. RICHARD WINSOR.  
WILLIAM E. SCHRICKER.  
GEORGE H. KING. JOHN H. POWELL.  
ALDEN J. BLETHEN.

### **Instruction.**

ALDEN J. BLETHEN, Chairman.  
GEORGE H. KING. WILLIAM E. SCHRICKER.

### **Library, Museum and Apparatus.**

RICHARD WINSOR, Chairman.  
WILLIAM E. SCHRICKER. JAMES E. BELL.

### **Buildings and Grounds.**

— GEORGE H. KING, Chairman.  
JOHN H. POWELL. WILLIAM E. SCHRICKER.

### **Reports and Publications.**

JAMES E. BELL, Chairman.  
RICHARD WINSOR. JOHN H. POWELL.

## THE UNIVERSITY FACULTY.

---

THOMAS FRANKLIN KANE, PH. D., *President.*

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, 1900-2; Acting President, 1902-3; President, 1903—

University Heights.

<sup>1</sup>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, 1899-1903.

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.

1. Term expires August 1st.

## FACULTY AND OTHER OFFICERS. 21

### 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-.

University Station.

### 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.

**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.

**ARTHUR RAGAN PRIEST, A. M.,** *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.

**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.

University Station.

**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, Fallsade, 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.

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.

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, 1899-1900; Professor of Mining Engineering and Metallurgy, and Dean of the School of Mines, University of Washington, 1901-.

University Heights.

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 ARTHUR 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.

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.

WILLIAM B. SAVERY, PH. D., *Professor of Philosophy.*

A. B., Brown University, 1896; Assistant in Ethics, Harvard University, 1896-1897; A. M., Harvard University, 1897; James Walker Fellow (traveling), Harvard University, 1897-98; student in University of Berlin, 1897-98; Morgan Fellow, Harvard University, 1898-99; Ph. D., Harvard University, 1899; Assistant in History of Philosophy, Harvard University and Radcliffe College, 1899-1900; Professor of Psychology and Philosophy, Fairmount College, Kansas, 1900-1902; Professor of Philosophy, University of Washington, 1902-.

University Station.

DAVID THOMSON, A. B., *Professor of Latin.*

A. B., University of Toronto, 1892; Classical Master in the High School, Orillia, Ontario, 1893-99; Fellow in Latin, University of Chicago, 1899-1901; Assistant in Latin, University of Chicago, 1901-02; Professor of Latin, University of Washington, 1902-.

University Station.

<sup>1</sup>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, 1901-1903.

University Station.

<sup>1</sup>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, 1899-1903.

University Station.

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.

<sup>2</sup>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, 1901-1903.

University Heights.

<sup>1</sup>Term expires August 1st.

<sup>2</sup>Resigned.

<sup>5</sup>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-.

RUDOLF ERNST HEINE, B. S., *Assistant Professor of 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, 1901-3; Assistant Professor of Electrical Engineering, 1903-.

University Station.

OTTILIE GERTRUDE BOETZKES, A.M., *Assistant Professor of Modern Languages.*

A. B., University of Washington, 1901; A. M., 1902; student in Paris, summer of 1903; Assistant in Modern Languages, University of Washington, 1900-01; Instructor, 1901-03; Assistant Professor, 1903-.

University Station.

HENRY GRANGER KNIGHT, A. B., *Assistant Professor of Chemistry.*

A. B., University of Washington, 1902; Assistant in Chemistry, University of Chicago, 1902-03; Fellow-elect, 1903. Assistant in Chemistry, University of Washington, 1900-01; Instructor, 1901-02; Assistant Professor, 1903-.

University Station.

3. Student in Clark University, 1903-04.

CHARLES W. JOHNSON, PH. D., *Assistant Professor of  
Pharmacy.*

Ph. G., University of Michigan, 1896; B. S., University of Michigan, 1900; Ph. D., University of Michigan, 1903. Practical Pharmacist, Detroit, Michigan, 1896-98; Assistant Instructor in Chemistry, University of Michigan, 1898-1900; Instructor in Chemistry, University of Iowa, 1901-02; Assistant Professor of Chemistry, University of Washington, 1903.

University Station.

MAYNARD LEE DAGGY, PH. B., *Assistant Professor of  
Rhetoric and Oratory.*

Ph. B., De Pauw University, 1896; Student Indiana Law School, 1898-99; Student University of Chicago, Summer of 1901. Student Assistant in English, De Pauw, 1895-96; Instructor in Elocution and English, High School, Jacksonville, Illinois, 1896-97; Instructor in English, High School, Mt. Vernon, Illinois, 1897-98; Instructor in English, Fon Du Lac, Wisconsin, 1900-1901; Instructor in Rhetoric and Oratory, University of Wisconsin, 1901-1903; Director of the Bay View School of Expression, Bay View, Michigan, Summers of 1902 and 1903; Assistant Professor of Rhetoric and Oratory, University of Washington, 1903.

University Station.

\_\_\_\_\_, *Professor of the German  
Language and Literature.*

\_\_\_\_\_, *Assistant Professor of  
History.*

\_\_\_\_\_, *Assistant Professor of  
Mechanical Engineering.*

\_\_\_\_\_, *Assistant Professor of  
Latin and Greek.*

To be elected during the summer of 1903.

## INSTRUCTORS AND ASSISTANTS.

HENRY L. BRAKEL, A. B., *Instructor in Physics.*

JEAN WOLD, A. B., *Instructor in Physical Culture and  
Director of Gymnasium for Women.*

<sup>1</sup>\_\_\_\_\_, *Instructor in Civil Engineering.*

W. LEE LEWIS, A. B., *Assistant in Chemistry.*

CHARLA A. H. BLODGETT, A. B., *Assistant in Spanish.*

JOHN CHARLES RATHBUN, A. B., *Assistant in Physics.*

ROBERT MAX GARRETT, A. M., *Assistant in English.*

PAUL HOPKINS, A. M., *Assistant in Chemistry.*

SAMUEL H. RICHARDSON, *Assistant in Geology.*

ALBERT H. MEHNER, *Assistant in Zoology.*

ELMER C. GREEN, *Assistant in Political Science.*

ANNA E. COREY, *Assistant in Botany.*

<sup>1</sup>\_\_\_\_\_, *Assistant in Pedagogy.*

J. ELMER BOVEY, A. B., *Tutor in History.*

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

<sup>1</sup>To be elected during summer of 1903.

### OFFICERS.

---

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

HERBERT T. CONDON, B. S., LL. B., *Registrar.*

WILLIAM MARKHAM, *Secretary to the Board of Regents.*

ANNIE HOWARD, *Preceptress.*

ELIZABETH PEARL McDONNELL, A. B., *Cataloguer in the Library.*

WILLIAM B. HAMPSON, M. E., *University Engineer and Director of Shop Work.*

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### COMMITTEES OF THE FACULTY.

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*Accredited Schools*—Professors Yoder, Gould and Kincaid.

*Admission*—Professors Foster, Byers, Fuller, Yoder, and Haggett.

*Advisers*—College of Liberal Arts: Freshmen, Professor Priest; Sophmores, Professor Padelford; Unclassified, Professor Gould; Juniors, Seniors and Graduates, the respective Major Professors. College of Engineering: Civil and Mechanical Engineers, Professor Fuller; Electrical, Professor Osborn. School of Mines: Professor Roberts. School of Pharmacy: Professor Byers. School of Law: Professor Condon.

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

*Assembly and Public Exercises*—Professors Priest, Meany, and Byers.

*Athletics*—Professors Meany, Roberts, and Haggett.

*Catalogue*—Professors Osborn, and Haggett.

*Discipline*—Professors Smith, Ranum, and Thomson.

*Dormitories*—Professors Fuller and Boetzkes.

*Holidays*—Professors Ranum, Thomson, and Roberts.

*Honors and Advanced Degrees*—Professors Smith, Fuller, Padelford, and Savery.

*Library*—Professors Padelford, Byers, and Haggett.

*Museum*—Professors Landes, Meany, and Kincaid.

*Petitions*—Professors Smith, Padelford, and Ober.

*Programme*—Professors Byers, Osborn, and Fuller.

*Student Assistance*—Professors Meany, Gould, and Roberts.



## 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 cornerstone 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 annually with all the essentials of a college training.

The total number of graduates up to June, 1903, was 459. 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 ex-

cept 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 of 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 advantages 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 1902, twenty-seven buildings were occupied by the public schools, three hundred and fifty teachers were employed and 15,000 pupils enrolled. A magnificent high school building costing over \$200,000 was completed 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 material.

*The Administration Building* is constructed of a light colored sandstone from Pierce county, and cream colored pressed brick from Spokane county, with terra cotta trimmings 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, below 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 500 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 separated 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* is situated on the oval southeast of the science hall. 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 contains all of the steam and electrical machinery for the lighting and power system of the University.

This consists of one 100 horse power Ball engine, one 40 horse power Ball engine, one 75 K. W. 500 volt direct current generator, one 60 K. W. 1,100 volt alternating current generator, one 35 K. W. 1,100 volt alternating current generator. A counter shaft is used

allowing any machine or any combination of machines to be run at any time. A five panel switchboard distributes current to all parts of the grounds and buildings for lighting and power purposes.

One of the high speed engines will drive a counter-shaft in the other room, which will be fitted up with metal working machinery, during the summer of 1903, for shop work for engineering students.

The boiler room contains 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, during the summer of 1903, with work benches, lathes and the necessary machinery for wood working. A large office and an ample number of lockers are also provided for. Other University buildings are connected with the power house by a large concrete subway, in which 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 Gymnasia* are under one roof, the young women occupying the room at the western end of the building, which measures 50x80 feet, with baths, dressing rooms, and a good equipment.

The young men occupy the eastern end of the building, with shower baths, dressing rooms, box, handball courts and an equipment second to none in the Northwest. The main hall measures 80x120 feet, is 24 feet high at the sides and 40 feet in the center, and has a fine floor of Washington fir which is free from bad points and possesses equal elasticity everywhere. A running track, about 14 laps to the mile, with concaved corners, is suspended from the roof trusses or supported by the walls. The entire building is heated by steam and lighted by electricity.

*The Old Power House* is a brick structure 42x80 feet on the shore of Lake Washington. At present it is used for a pumping station.

*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.

#### GROUNDS AND ARBORETUM.

The new grounds are ample enough to satisfy every need of the University. There are 355 acres, all with-

in 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 beautiful 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 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 the 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.

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 2,200 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 1,000 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 entertainments 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 50x60 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 specimens 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 ad-

dition 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.

In the rear of the stock room is a private laboratory of sufficient size to accommodate two persons. This laboratory is assigned to a graduate student for research work.

Laboratory F accommodates twenty-eight students working at the same time and is devoted to the students of Pharmacy, who are at the same time taking courses in Chemistry. Adjoining it is a dark room where work in Photography may be carried on by any persons interested in that line of work. Opening from it also is a private laboratory for the use of the instructor in Pharmacy.

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

Laboratory E accommodates twenty-five students. It is in the form of an amphitheater and is exceptionally

well lighted and is an ideal room for the organic work to which it is devoted. Opening from it is a room which is equipped with ten balances, suited to the needs of the advanced students in general chemistry and students in organic work.

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

By the opening of the next school year there will be a qualitative laboratory equipped to supply the needs of fifty students and also provided with apparatus and rooms for work in physical chemistry. There will also be a private laboratory for the use of the instructor in physical chemistry and a balance room with a sufficient supply of fine analytical balances.

### Physics and Electrical Engineering.

The laboratories set apart for the use of the department consist of: (1) a general laboratory, 30x70 feet; (2) an electrical testing room with four piers; (3) a photometry room; (4) a dynamo and battery room; (5) a shop equipped with an iron lathe, a wood lathe and wood and iron working tools.

The laboratories are supplied with apparatus from the best American and European makers. Among the more important pieces of apparatus may be mentioned: (1) standard balances, 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) Helmholtz resonators and double siren,

chronograph with fork; (3) Boy's Radiomicrometer, Dulong and Petit's absolute expansion of liquids apparatus, Berthelot's Heat of Vaporization apparatus and a Waterman calorimeter; (4) a spectro-goniometer, two spectroscopes, polarimeter, a refractometer, a Fresnel's optical bench complete and a Rowland concave grating; (5) Kelvin composite balance, Kelvin electrostatic voltmeter, sixteen Weston voltmeters and ammeters, Reichstaldt resistances, Kohlraush bridge, Hartman & Bran's electrolytic resistance apparatus, standard condensers, Thompson galvanometers, etc.; (6) a storage battery of seventy cells, six transformers, two direct current 110-volt generators, a 10-light arc dynamo, a 5 K. W. rotary converter, Ft. Wayne three-phase alternator, an induction motor, a 6 H. P. motor and a 25 H. P. motor, a Lummer-Brodhem photometer, a Matthews integrating photometer, etc.

The general laboratory is supplied with a number of standard reference works, among which may be mentioned Wenkelmann's Handbuch, Viole's Course de Physique, Wullner's Experimental Physik, Grey's Absolute Measurements 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 and Beiblaetter, 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 skylight, 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 exchange 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 textbooks and supplementary material for primary and secondary schools has been placed in the general laboratory during the past year. Many of the best textbooks 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 sitting. 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 microphotography 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 speci-

mens 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 the 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 eight tables, made with tile tops and provided with gas fixtures, which accommodate sixty-four 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, blow-pipe 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.

### 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 Buff & Buff 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 18-inch Buff & Buff 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, cabinet, models and a large collection of drawings and blue prints illustrating current engineering practice. 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.

The description of the electrical equipment will be found under the head of Physical and Electrical, page 52.

The description of the mechanical equipment will be found under *The New Power House*, page 42.

The Structural Testing laboratory contains a 100,000 pound testing machine with complete appurtenances for tensile, compressive, and transverse tests of wood, iron, steel, stone, and brick.

The Library contains complete files of the Transactions of the American Society of Civil Engineers, and of Engineering News, besides a fair collection of general engineering books.

#### Assay Laboratory.

The assay laboratory is located just north of the Administration building. One room contains four station-

ary wind furnaces, 12 by 16 inches; one large double muffle heated by coal and coke; desks for 16 students; 4 ore balances and tables for preparing charges, sampling ore, etc. An adjoining room contains a Hoskins gasoline pressure tank, 3 Sunset burners to heat muffles and fusion furnaces; a Brown cupel machine; 2 wind furnaces; a motor of  $1\frac{1}{4}$  H.P. to run a gyratory muller, a jaw crusher and high-speed crushing rolls; a sampling floor, bucking boards, mortars, pans, lockers, etc.

The balance room is supplied with a fine Keller button balance, sensitive to 1-200 m. g.; Oertling fine button balance and two Becker analytical balances.

Wet assaying and general analysis is carried on in a room fitted with gas and water for 12 desks. Two thermo-batteries supply direct current for electrolytic work. Tanks for cyanide tests, a large hood, a pair of cornet rolls and well supplied stock-room complete the equipment.

### 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 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 among the young men 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 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.

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*The Athena Debating Club* is a similar organization among the young women.

*The Interstate Oratorical Association* is represented by a branch association in the University.

The King County Bar Association in the spring of 1896 offered a cash prize of \$100 to be competed for 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 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 Society of Engineers* is an association composed of the students in the College of Engineering and the School of Mines. Meetings are held once a month, at which original papers are presented by the members or lectures delivered by prominent engineers.

*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. Each association employs a paid secretary.

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

*Four of the national Greek letter fraternities* have established chapters in the University. Of the four fraternities possessing charters, three live in their own houses; the fourth lives in a rented house. Students in the School of Pharmacy have also established an independent fraternity.

*Two of the national Greek letter sororities* have likewise established chapters in the University.

### EXPENSE OF STUDENTS.

Tuition is free to all students of the state of Washington in all colleges of the University, except the School of Law. For non-residents of Washington the tuition is \$10 a semester. In the School of Law the tuition is \$20

a semester, for all students. (Students who have been enrolled in the School of Law will be charged the former rate of \$30 a year.)

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 and rooms are furnished at cost. For the past year the price of board has been \$13.50 per month. Rooms, with light and heat, furnished, excepting bedding, cost \$12.00 a semester. 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 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:

*Chemistry.*—At the beginning of each semester all students in chemistry will be required to make a deposit of ten dollars. (\$10) with the registrar before being assigned their desks except in Chemistry 0, where the deposit will be five dollars (\$5). Of these deposits one-

half will be deducted to pay cost of chemicals, gas, water, etc., and the remainder, less breakage, will be returned.

*Pharmacy.*—All students in Pharmacy will be required to make a deposit of ten dollars (\$10) each semester during their Junior year and fifteen (\$15) during their Senior year. Of this amount one-half will be deducted to cover cost of drugs and the remainder, less breakage, will be returned. These deposits are in addition to those required in other departments.

*Physical and Electrical.*—Students are required to make a deposit of five dollars (\$5) with the registrar. From this deposit seventy-five cents (75c.) for each hour of credit is deducted to pay for material and repair of apparatus, and the remainder, less breakage, is returned.

*Botanical.*—Material for dissection, stains, alcohol, and other reagents, and typewritten laboratory outlines are furnished each student, for which a fee is collected as follows: One dollar for each hour's credit carried through the year, except research work, where the fees are determined by the nature of the work done.

Each student is furnished with a key to a drawer in his laboratory table, for which a deposit of twenty-five cents must be made. This is refunded upon return of the key.

*Zoological.*—For the courses in Zoology, involving laboratory work, a fee is required to cover the estimated cost of the laboratory outlines, material and reagents used by the student. For the regular courses, the

amount is one dollar for each hour's credit carried through the year. In research work the amount of the fee is subject to special arrangement, according to the nature of the investigation.

*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 given every Monday 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 1902-3:

Sept. 24.—Annual Opening Address—President Gault of Whitworth College.

Sept. 29.—Student Rally.

Oct. 6.—“Policy for Year 1902-3”—Acting-President Kane.

Oct. 13.—“Self Reliance”—Rev. M. A. Matthews.

Oct. 20.—“What Good Does Wishing Do?”—Superintendent Warner of Tacoma.

Oct. 27.—“Alaska Mummies”—Professor E. S. Meany.

Nov. 3.—“The Moral Uses or Mirth”—Rev. W. D. Simonds.

Nov. 10.—“Martin Luther”—Rev. M. A. Christensen.

Nov. 17.—“College Traditions”—Hon. Samuel Hill.

Nov. 24.—“Customs at Toronto University”—Professor David Thomson.

Dec. 1.—“Practical Hints for Immediate Use”—Hon. Charles S. Gleason.

Dec. 8.—“America’s Discoverer”—Hon. Joseph Shippen.

Dec. 15.—“Direct Primaries”—Hon. Reuben W. Jones.

Jan. 12.—“The Children of the Northland”—Major E. S. Ingraham.

Jan. 19.—“The Bible in English Literature”—Professor George W. Saunderson.

Jan. 26.—“Finding the Remainder”—Superintendent Frank B. Cooper.

Feb. 2.—“The Great Game of American Politics”—Judge F. A. McDonald.

Feb. 9.—“How We Got Our Bible”—President S. B. L. Penrose of Whitman College.

Feb. 16.—Recital—Professor and Mrs. Saunderson.

Feb. 23.—Celebration of the Natal Day of the University. Addresses by Professor E. S. Meany and Rev. Daniel Bagley.

- March 2.—"The Anarchist Colony 'Home'"—Professor H. G. Byers.
- March 9.—"The Value of Higher Education"—Professor Edwin Twitmyer.
- March 23.—"Agassiz"—Professor Trevor Kincaid.
- March 30.—"Student Life in the Middle Ages"—Professor E. M. Hulme of the University of Idaho.
- April 6.—"Forces that Educate"—Dr. Lyman B. Sperry.
- April 13.—"Football in the Early Days"—Hon. Frank S. Griffith.
- April 20.—"Law Enforcement"—Dr. J. C. Thoms.
- April 27.—Musical Program—Glee Club and Band.
- May 4.—"The Art Poems of Browning"—Miss Baker of Whitworth College.
- May 11.—"America's Great Problems"—Dr. A. H. Bradford of New Jersey.
- May 18.—"The Four Steps in Education"—Rev. Frederick C. Lee.
- May 25.—"Travels in Europe"—Hon. Geo. F. Cotterill.
- June 1.—Promotion of Classes.

## 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 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.

## DIVISION OF THE YEAR.

The year is divided into two semesters. Admission will be granted at the beginning of either semester to students properly prepared, but freshmen should always enter, if possible, at the beginning of the first semester.

## ADMISSION.

## I. Regular Admission.

Requirements for the years 1903-4 to 1906-7 inclusive.

Admission to the freshman class may be secured in two ways:

1. Admission by examination.
2. Admission from an accredited school.

1.—*Admission By Examination.*

To be admitted in this way, students must pass an examination in specified and optional subjects amounting in the aggregate to fifteen units. The specified subjects are required of all students.

Full details of the ground each subject covers are found under the head of Suggestions for Preparation in the catalogue or in the circulars of Suggestions to Secondary Schools.

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 not less than thirty-six weeks.

*Specified Subjects.*

English, 4 units.  
 Mathematics, 2½ units.  
 General History, 1 unit.  
 Physics, 1 unit.  
 Civics, ½ unit.  
 Total, 9 units.

*Optional Subjects.*

Latin, 4 units.  
 Greek, 2 units.  
 German, 2 units.  
 French, 2 units.  
 Solid Geometry, ½ unit.  
 Trigonometry, ½ unit.  
 American History, ½ unit.  
 Greek and Roman History, 1 unit.  
 Physical Geography, ½ unit.  
 Physiology, ½ unit.  
 Zoology, ½ or 1 unit.  
 Botany, ½ or 1 unit.  
 Chemistry, 1 unit.  
 Geology, 1 unit.  
 Mechanical Drawing, 1 unit.

Note 1. In English the requirement of four units may be satisfied by three years' work of five recitations a week for thirty-six weeks.

Note 2. In addition to the specified subjects a student must offer from the optional studies certain units determined by each particular course as follows:

For the Classical course, four units of foreign language, not less than two being Latin.

For the Literary course, four units of foreign language.

For the Scientific course, two units of foreign language.

For the Engineering course, two units of foreign language (modern language preferred), one unit of Chemistry, one-half unit of Solid Geometry.

## Suggested Outline of Courses for Entrance.

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 Train- ing or Option.
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 ( $\frac{1}{2}$ yr), and Solid Geometry or Option ( $\frac{1}{2}$ yr)	Algebra ( $\frac{1}{2}$ yr), and Solid Geometry or Option ( $\frac{1}{2}$ yr)	Algebra ( $\frac{1}{2}$ yr), and Solid Geometry ( $\frac{1}{2}$ yr)
Fourth year :			
English.	English.	English.	English.
Latin.	Latin.	2d yr. German, or 2d yr French.	2d yr. German, or 2d 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.

## 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 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 candidates 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 Coverly 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*.—Myer'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 mono-*

graphs, Gardiner's larger history, Macaulay and Green. At least one year should be spent in preparation.

5. *Greek and Roman History*.—Myer's *Ancient History* is recommended as one of the best texts 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. Another excellent work in this field is Wolfson's *Essentials in Ancient History*, published in 1903 by the American Book Company. 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 evidences 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' 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 Carhart & Chute's Physics should be given in the senior year and be preceded by algebra and plane geometry.

At least fifty hours of quantitative laboratory work must accompany the study of the text. The following list of exercises taken from Chute's Laboratory Manual indicates the problems desired: 30, 31, 35, 36, 44, 46, 48, 52, 58, 63, 64, 70, 73, 79, 80, 86, 90, 94, 104.

Students presenting note books from High School physical laboratories approved by this department, by electing Physics 1, may be excused from the laboratory work.

#### 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 Caesar 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.—White's First Greek Book. 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. The text recommended is Hessler and Smith. Laboratory experience is required and the student offering chemistry for admission must submit his laboratory notebook showing the work done and approved by his instructor in the preparatory school, whether an accredited high school or not.

#### 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 of 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 and equipment. If the report is favorable, any graduate of that school will be admitted without examination from courses accredited.

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.

As a rule, the accredited school list of other state universities will be accepted by the University of Washington. Graduates of accredited schools, in other states, will present diploma or certified record of work as in the case of local students.

## LIST OF ACCREDITED SCHOOLS.

The following high schools and academies have been accredited for the year. Graduates of the class of 1903 in courses named will be admitted to the freshman

class of the College of Liberal Arts without examination. Other students from these schools will be accredited individually as their courses meet the entrance requirements of the University.

<b>Aberdeen—</b>	<b>Puyallup—</b>
Classical, literary.	Classical, scientific.
<b>Ballard—</b>	<b>Seattle—</b>
Classical, scientific.	College preparatory, individually.
<b>Centralia—</b>	<b>Snohomish—</b>
Literary.	Elective system, students accredited as their courses meet requirements.
<b>Chehalis—</b>	<b>Spokane—</b>
Classical, literary, scientific.	Classical, literary, scientific, engineering.
<b>Davenport—</b>	<b>Tacoma—</b>
Classical, literary, scientific.	Elective system, students accredited as their courses meet requirements.
<b>Dayton—</b>	<b>Vancouver—</b>
Classical, literary, scientific.	All courses.
<b>Everett—</b>	<b>Walla Walla—</b>
Latin, scientific.	Classical, literary.
<b>Fairhaven—</b>	<b>Waterville—</b>
Classical, scientific.	Classical, literary, scientific.
<b>*Kent—</b>	<b>Whatcom—</b>
See note.	Classical, scientific.
<b>North Yakima—</b>	
Classical, literary.	
<b>Olympia—</b>	
Latin.	
<b>Puget Sound Academy,</b>	
<b>Snohomish—</b>	
Classical course.	

\*Kent was not formally inspected on account of the loss of its building and equipment by fire. The credit of last year is extended to the present year.

The above schools have been visited at least once during the year by a member of the committee on accredited schools. The rules governing the accrediting of schools will be sent upon application to the committee.

## 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. Special students are not eligible for degrees.

## 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 training 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.

## REGISTRATION.

Registration Day is the first day of each semester. A student is first to present himself before the Committee on Admission and be assigned to the proper class officer and given the necessary 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.

# COLLEGE OF LIBERAL ARTS.

## THE FACULTY.

THOMAS F. KANE, PH. 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 Civil Engineering.

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

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.

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

\*Term expires August 1, 1903.



## UNIVERSITY OF WASHINGTON.

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

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

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 B. SAVERY, PH. D.,  
Professor of Philosophy.

DAVID THOMSON, A. B.,  
Professor of Latin.

<sup>1</sup>WILLIAM J. MEREDITH, A. B.,  
Associate Professor of English.

<sup>1</sup>MARTHA L. HANSEE, A. M.,  
Associate Professor of Greek and Latin.

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

<sup>2</sup>THOMAS W. LOUGH, A. B.,  
Assistant Professor of Chemistry.

<sup>3</sup>DAVID KELLY, A. M.,  
Assistant Professor of Physics.

RUDOLF E. HEINE, B. S.,  
Assistant Professor of Electrical Engineering.

OTILIE G. BOETZKES, A. M.,  
Assistant Professor of Modern Languages.

HENRY G. KNIGHT, A. B.,  
Assistant Professor of Chemistry.

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1. Term expires August 1, 1903.

2. Resigned.

3. Student Clark University, 1903-4.

**Other Instructors.**

HENRY L. BRAKEL, A. B.,  
Instructor in Chemistry.

JEAN WOLD, A. B.,  
Instructor in Physical Culture.

W. LEE LEWIS, A. B.,  
Assistant in Chemistry.

CHARLA A. H. BLODGETT, A. B.,  
Assistant in Spanish.

JOHN CHARLES RATHBUN, A. B.,  
Assistant in Physics.

ROBERT MAX GARRETT, A. M.,  
Assistant in English.

SAMUEL H. RICHARDSON,  
Assistant in Geology.

ELMER C. GREEN,  
Assistant in Political Science.

**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 two ways indicated on page 73.

## 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 twenty hours, exclusive of eight credits in physical culture required of every student.

The unit hour is used to represent one recitation a week for a period of one semester. A subject requiring four hours a week for one semester represents four hours; if it requires four hours a week for one year, it represents eight hours.

### Plan of the Course.

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

<i>Classical.</i>	<i>Hours.</i>	<i>Literary.</i>	<i>Hours.</i>	<i>Scientific.</i>	<i>Hours</i>
Ancient Languages.	24	Anc. or Mod. Lan.	24	Modern Language..	16
English .....	12	English .....	12	English .....	12
Mathematics .....	4	Mathematics .....	4	Mathematics .....	4
Pol. Econ. or Hist.	8	Pol. Econ. or Hist.	8	Pol. Econ. or Hist.	8
Philosophy .....	8	Philosophy .....	8	Philosophy .....	8
Science .....	8	Science .....	8	Science .....	16
	64		64		64

Major 24 hours. Elective to make total of 128 hours, including 8 hours of Gymnasium.

### Requirements by Years.

<i>Classical—</i>		<i>Literary—</i>		<i>Scientific—</i>	
Freshman.		Freshman.		Freshman.	
Latin .....	8	Lat. or Mod. Lan..	8	Modern Language..	8
Greek .....	8	Science .....	8	Science .....	8
English .....	4	English .....	4	English .....	4
Mathematics .....	4	Mathematics .....	4	Mathematics .....	4
Science .....	8	Elective .....	8	Elective .....	8

Sophomore.		Sophomore.		Sophomore.	
Latin or Greek...	8	Lat. or Mod. Lan...	8	Modern Language..	8
English .....	8	English .....	8	English .....	8
Pol. Econ. or His..	8	Pol. Econ. or His..	8	Pol. Econ. or His..	8
Elective .....	8	Elective .....	8	Elective .....	8
Junior.		Junior.		Junior.	
Philosophy .....	8	Philosophy .....	8	Philosophy .....	8
Major .....		Major .....		Major .....	
Elective .....		Elective .....		Elective .....	
Senior.		Senior.		Senior.	
Major .....		Major .....		Major .....	
Elective .....		Elective ..		Elective .....	

### 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 preparing for a specialty or for professional study are likewise afforded.

#### 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-four hours.

#### 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 a student who has attained a grade of A in his major department, an average grade of B-| in other departments, and has never been conditioned in any subject.

Early in May each head of a department shall bring to the attention of the committee on honors such seniors making majors in his department as he thinks may be eligible for honors.

A student is not allowed to take honors in more than one subject.

The following is the system of grades:

A	:	.....	93-100	Per cent.
B-	:	.....	85-92.	
B	:	.....	75-84.	
B—	:	.....	70-74	
C	(conditioned)	:	.....	50-69.
D	(failed)	:	.....	Below 50.

### 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

have completed twelve hours of prescribed work in the department of pedagogy, provided they give satisfactory evidence of their fitness for teaching. These diplomas are equivalent to the Life Diplomas issued by the State Superintendent of Public Instruction.

### 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 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.

THOMAS FRANKLIN KANE, PH. D.,  
PRESIDENT.

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

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

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

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

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

CHARLES W. VANDER VEER,  
Professor of Physical Culture.

FREDERICK ARTHUR 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.

RUDOLF E. HEINE, B. S.,  
Assistant Professor of Electrical Engineering.

\*Term expires August 1. 1903.

HENRY G. KNIGHT, A. B.,  
Assistant Professor of Chemistry.

.....  
Assistant Professor of Mechanical Engineering.

.....  
Instructor in Civil Engineering.

### PURPOSE.

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

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, drawing and surveying. The last two years are devoted to work more purely professional. 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 field and laboratory, and by making tests of available commercial plants. Occasional inspection tours among the varied engineering interests in Seattle and vicinity furnish excellent illustrations. Engineering students are strongly advised to devote their vacations to surveying, draughting, work in factories, repair shops, electric light and railway stations and similar work in order to obtain commercial experience and a better appreciation of the relation of technical training to practical work.



## ADMISSION.

The requirements for admission to the Freshman class of the College of Engineering are:

	Units.
English .....	4
Algebra .....	1½
Plane Geometry .....	1
Solid Geometry .....	½
Physics .....	1
Chemistry .....	1
Foreign Language .....	2
History .....	1
Civil Government .....	½
Elective .....	2½
Total .....	15

For more specific information concerning the preparation necessary to meet the above requirements and list of electives see page 75.

Students at least sixteen years of age may be admitted:

(1) By presenting a certificate of graduation from an accredited school (for list see page 85) covering the above subjects.

(2) By passing a satisfactory examination in above subjects.

*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 far more valuable.*

The Freshman work in the several courses is identical, thus making it possible for a student to delay the defin-

ite choice of a course until the beginning of the Sophomore year.

### THESIS.

A graduating thesis 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 may be conferred upon any student of the College of Engineering who is recommended by the Engineering Faculty.

#### 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.

## COURSES IN THE COLLEGE OF ENGINEERING.

The subjects in each department are described in full under the departmental statements, page 115 and following.

### Course in Civil Engineering.

#### *First Semester—*

#### *Second Semester—*

#### FRESHMAN YEAR.

Hours.	Hours.
Mathematics, 1a .....	4
Chemistry, 1.....	4
Rhetoric, 1.....	4
Drawing, 1.....	4
Shop, 1a.....	2
Physical Culture .....	2
Total .....	16 -4

Mathematics, 2a.....	4
Chemistry, 2.....	4
Physics, 1 .....	4
Surveying, 3a.....	4
Shop, 1b .....	2
Physical Culture .....	2
Total .....	16 -4

#### SOPHOMORE YEAR.

Hours.	Hours.
Mathematics, 5a .....	4
Descriptive Geometry, 2a..	4
Physics, 2 .....	4
Surveying, 3b .....	3
Industrial Chemistry, 7....	2
Physical Culture .....	2
Total .....	17 -2

Mathematics, 6a .....	6
Descriptive Geometry, 2b..	2
Physics, 3 .....	4
Surveying, 3c .....	3
Physical Culture .....	2
Total .....	15 -2

#### JUNIOR YEAR.

Hours.	Hours.
Mechanics, 5a .....	4
Railroads, 4a .....	4
Geology, 1 .....	4
Political Science, 1.....	4
Total .....	16

Mechanics, 5b .....	4
Railroads, 4b .....	4
Masonry Construction, 8..	4
Metallurgy, 8 .....	2
Industrial Electricity, 3... 2	
Total .....	16

## SENIOR YEAR.

Hours.	Hours.
Hydraulics, 6a and 6b.... 4	Hydraulics, 6b and 6c.... 4
Bridges, 7a ..... 4	Bridges, 7b ..... 4
Astronomy, 1 ..... 2	Astronomy, 2 ..... 2
Least Squares, 11..... 2	Geodesy, 8d ..... 2
Roads and Pavements, 9... 2	Contracts and Specifica-
Structural Materials, 10... 2	tions, 11 ..... 1
—	Thesis ..... 3
Total .....16	Total .....16

## Course in Electrical Engineering.

## First Semester—

## Second Semester—

## FRESHMAN YEAR.

Hours.	Hours.
Rhetoric, 1 ..... 4	Physics, 1 ..... 4
Mathematics, 1a ..... 4	Mathematics, 2a ..... 4
Chemistry, 1 ..... 4	Chemistry, 2 ..... 4
Drawing, 1 ..... 4	Surveying, 3a ..... 4
Shop, 1a ..... 2	Shop, 1b ..... 2
Physical Culture ..... 2	Physical Culture ..... 2
—	—
Total .....16- 4	Total .....16- 4

## SOPHOMORE YEAR.

Hours.	Hours.
Physics, 2 ..... 4	Physics, 3 ..... 4
Mathematics, 5a ..... 4	Mathematics, 6a ..... 6
Descriptive Geometry, 2a.. 4	Descriptive Geometry, 2b.. 2
Machine Design, 5..... 3	Kinematics of Mechanisms,
Shop, 3a ..... 2	6a ..... 3
Industrial Chemistry, 7.... 2	Shop, 4a ..... 2
Physical Culture ..... 2	Physical Culture ..... 2
—	—
Total .....17- 4	Total .....15- 4

## JUNIOR YEAR.

Hours.	Hours.
Mechanics, 5a ..... 4	Mechanics, 5b ..... 4
Dynamo Machinery, 1a.... 2	Dynamo Machinery, 1b, 1d 6
Electrical Measurements, 4 4	Steam Engineering, 10e.... 2
Primary and Secondary Bat-	Industrial Electricity, 8.... 2
teries, 5 ..... 2	Metallurgy, 8 ..... 2
Political Science, 1..... 4	—
—	Total ..... 16
Total .....16	

## SENIOR YEAR.

Hours.	Hours.
Power Transmission, 8a... 8	Power Transmission, 8b... 3
Hydraulics, 6a ..... 3	Hydraulics, 6b ..... 2
Electric Railways, 2..... 2	Telephones and Tele-
Alternating Currents, 6a, 6b 4	graphs, 9 ..... 2
Commercial Testing, 7a... 3	Alternating Current, 6c, 6d 4
—	Commercial Testing, 7b.... 2
Total .....15	Thesis ..... 3
	—
	Total .....16

## Mechanical Engineering.

Freshman and Sophomore Years Same as Electrical Engineering.

*First Semester—*

*Second Semester—*

## JUNIOR YEAR.

Hours.	Hours.
Mechanics, 5a ..... 4	Mechanics, 5b ..... 4
Political Science, 1..... 4	Dynamo Machinery, 1b, 1d 6
Kinematics of Mechanisms,	Graphic Statics of Mechan-
6b ..... 3	isms, 7 ..... 3
Dynamo Machinery, 1a.... 2	Engines and Boilers, 10b.. 3
Thermo-Dynamics, 10a .... 3	Shop, 2 ..... 2
Shop, 4b ..... 2	—
Total .....16 -2	Total .....16 -2

## SENIOR YEAR.

Hours.	Hours.
Hydraulics, 6a..... 4	Hydraulics, 6b ..... 2
Complete Machines, 8.... 3	Seminary, 9 ..... 3
Steam Laboratory, 10c.... 3	Steam Laboratory, 10d.... 3
Steam Engine Design, 11.. 4	Metallurgy ..... 2
Electric Railways, 2..... 2	Industrial Electricity, 3.... 2
Shop ..... 2	Shop ..... 2
—	Thesis ..... 3
Total .....16 -2	—
	Total .....15 -2

# THE SCHOOL OF MINES.

---

## THE FACULTY.

THOMAS FRANKLIN KANE, PH. D.,  
PRESIDENT.

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

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

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.

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

CHARLES W. VANDER VEER,  
Professor of Physical Culture.

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

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.

\*Term expires August 1, 1903.

RUDOLF E. HEINE, B. S.,  
Assistant Professor of Electrical Engineering.

HENRY G. KNIGHT, A. B.,  
Assistant Professor of Chemistry.

.....,  
Assistant Professor of Mechanical Engineering.

.....,  
Instructor in Civil Engineering.

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 three courses: (1) mining engineering; (2) geology and mining; (3) short course in mining for prospectors.

The course in mining engineering with geology 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 year courses are the same as for the College of Engineering (see page 96.).

## COURSES OF THE SCHOOL OF MINES.

The subjects in each department are described in full under the departmental statements, page 115 and following.

## Course in Mining.

## First Semester—

## Second Semester—

FRESHMAN YEAR.	
Hours.	Hours.
Mathematics, 1a..... 4	Mathematics, 2a ..... 4
Chemistry, 1 ..... 4	Chemistry, 2 ..... 4
Rhetoric, 1 ..... 4	Physics, 1 ..... 4
Drawing, 1 ..... 4	Surveying, 3a ..... 4
Shop, 1a ..... 2	Shop, 1b ..... 2
Physical Culture ..... 2	Physical Culture, ..... 2
Total ..... 16- 4	Total ..... 16- 4

## SOPHOMORE YEAR.

Hours.	Hours.
Mathematics, 5a ..... 4	Mathematics, 6a ..... 4
Geology, 1 ..... 4	Geology, 2 ..... 4
Surveying, 3b ..... 3	Surveying, 3c ..... 3
Physics, 2 ..... 4	Mathematics ..... 2
Physical Culture ..... 2	Chemistry, 8 ..... 4
Total ..... 15- 2	Physical Culture ..... 2
	Total ..... 16- 2

## JUNIOR YEAR.

Hours.	Hours.
Metallurgy, 1 ..... 4	Metallurgy, 2 ..... 4
Geology, 3 ..... 3	Geology, 4 ..... 3
Mechanics, 5a ..... 4	Mechanics, 5b ..... 4
Descriptive Geometry, 2a.. 4	Descriptive Geometry, 2b.. 2
Total ..... 15	Metallurgy, 5 ..... 2
	Total ..... 15

## SENIOR YEAR.

Hours.	Hours.
Mining, 1 ..... 4	Mining, 2 ..... 4
Hydraulics, 6a and 6b.... 4	Hydraulics, 6b and 6c ..... 4
Political Science, 1..... 4	Industrial Electricity, 3.. 2
Metallurgy, 3 ..... 3	Geology, 8 ..... 3
Total ..... 15	Elective ..... 2
	Total ..... 15



## Course in Geology and Mining.

## First Semester—

## Second Semester—

## FRESHMAN YEAR.

	Hours.		Hours.
Mathematics, 1a.....	4	Mathematics, 2a .....	4
Chemistry, 1 .....	4	Chemistry, 2 .....	4
Rhetoric, 1 .....	4	Physics, 1 .....	4
Drawing, 1 .....	4	Surveying, 3a .....	4
Shop, 1a .....	2	Shop, 1b .....	2
Physical Culture .....	2	Physical Culture .....	2
<hr/>		<hr/>	
Total .....	16-4	Total .....	16-4

## SOPHOMORE YEAR.

	Hours.		Hours.
Mathematics, 5a .....	4	Mathematics, 6a .....	4
Geology, 1 .....	4	Mathematics .....	2
Surveying, 3b .....	3	Geology, 2 .....	4
Physics, 2 .....	4	Surveying, 3c .....	3
Physical Culture .....	2	Chemistry, 3 .....	3
	—	Physical Culture .....	2
Total .....	15- 2	Total .....	17- 2

## JUNIOR YEAR.

	Hours.		Hours.
Metallurgy, 1 .....	4	Metallurgy, 2 .....	4
Geology, 3 .....	3	Geology, 3 .....	3
Geology, 5 .....	2	Geology, 6 .....	2
Political Science, 1.....	4	Political Science, 2.....	4
Elective .....	2	Elective .....	2
	<hr/>		<hr/>
Total .....	15	Total .....	15

## SENIOR YEAR.

	Hours.		Hours.
Mining, 1 .....	4	Mining, 2 .....	4
Zoology, 1 .....	4	Zoology, 2 .....	4
Geology, 7 .....	3	Geology, 8 .....	3
Elective .....	4	Metallurgy, 4 .....	3
	—	Elective .....	1
Total .....	15		—
		Total .....	15

### 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 semester. Students in Course II may present geological field work as a partial substitute.

### DEGREE.

The four year 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 may be conferred upon any student who has been recommended by the Faculty of the School of Mines.

#### 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.

### III. Short Course in Mining for Prospectors.

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 1 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 3 a fee of three dollars is charged, and a deposit of two dollars required as a surety for the return of the blowpipe outfit and other apparatus loaned; in subject 4 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.

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

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

3. *Mineralogy*.—Instruction and practice in blow-pipe analysis, followed by lectures upon the common minerals, with practice in the identification of minerals by field tests. (Three times a week.)

4. *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.)

5. *General Method of Mining*.—Lectures on excavating, blasting, tunneling and shaft sinking, timbering, mine transportation, pumping, ventilation and hydraulic mining. (Twice a week.)

6. *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.

7. *Advanced Mineralogy*.—A continuation of descriptive mineralogy with much practice in determinative work. (Prerequisite, 3.)

8. *Quantitative Analysis*.—Gravimetric and volumetric analysis. Talbot's Quantitative Analysis. (Two afternoons a week. Prerequisite, 1.)

9. *Wet Assaying*.—Assaying of bullion for fineness. Assaying of copper by various methods. Amalgamation assay. (Prerequisite, 1. To be taken with 7.)

10 *Mining*.—Ore dressing. Lectures upon the treatment of ores underground and at surface. Hand picking, crushing, sizing, separating, vanning, jigging, etc. Stamp battery and amalgamation process. Receiving, sampling and purchasing of ores at smelters.

11. *Economic Geology*.—A study of the origin and extent of metalliferous veins and ore deposits; varieties of coal and localities of coal fields; building stones and mineral products of commercial importance. Lectures, with Kemp, Tarr and Phillips as references. (Three times a week throughout the year. Prerequisite, 3. To be taken with 7.)

### 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.

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## THE FACULTY.

THOMAS FRANKLIN KANE, PH. 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.

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

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

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

HENRY G. KNIGHT, A. B.,  
Assistant Professor of Chemistry.

CHARLES W. JOHNSON, PH. D.,  
Assistant Professor of Pharmacy.

PAUL HOPKINS, A. M.,  
Assistant in Chemistry.

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\*Term expires August 1, 1903.

†Resigned.

### 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. It will be found also that the course will be an excellent preparation for a medical course.

### ADMISSION.

Students at least seventeen years of age will be admitted to the school upon the same conditions as to the College of Liberal Arts, viz., upon presentation of a diploma from an accredited high school or evidence of equivalent mental training. Special students will be allowed to enter and take work which will enable them to pass the examinations of the State Board of Pharmacy if they are over twenty years of age. Such students will not be graduated from the school until they have satisfied the entrance requirements. If students have not had high school courses in Physics, Chemistry and Botany they will be expected to make these courses in addition to regular work of the school.

### 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 subjects in each department are described under the departmental statements, page 115 and following.

## Regular Course.

<i>First Semester—</i>	<i>Second Semester—</i>
<b>JUNIOR YEAR.</b>	<b>JUNIOR YEAR.</b>
Pharmacy, 1.	Pharmacy, 2.
Chemistry, 1.	Chemistry, 2.
Physiology, 1.	Physiology, 2.
*Pharmaceutical Latin	Pharmaceutical Latin
or	or
French	French
or	or
German.	German.
	Pharmacy, 9 (Botany).

\*Students who have had good Latin training will be expected to take French or German. One language course must be elected.

<b>SENIOR YEAR.</b>	<b>SENIOR YEAR.</b>
Pharmacy, 3	Pharmacy, 4
Chemistry, 3	Chemistry, 4
Materia Medica,	Pharmacognosy
Pharmaceutical	and Microscopy
Jurisprudence	} Pharmacy 13
and Urinary	
Analysis	Toxicology, Pharmacy 6
Histology, Pharmacy, 10	

## Advanced Course.

<b>THIRD YEAR.</b>	<b>THIRD YEAR.</b>
Mathematics, 1.	Rhetoric, 1.
Materia Medica.	Physics, 1.
Chemistry, 5.	Chemistry, 6.
German, 1	German, 2
or	or
French, 1.	French, 2.
<b>FOURTH YEAR.</b>	<b>FOURTH YEAR.</b>
German, 3	German, 4
or	or
French, 3.	French, 4.
Chemistry, 7	Chemistry, 8
Dispensing,	Dispensing,
Chemistry, 11.	Chemistry, 12.
Physics, 2.	Physics, 3.

## METHODS.

The lectures of the course are supplemented by frequent quizzes and are accompanied by a large amount of laboratory work. It is expected that students will devote the whole of their time to the school work if they expect to complete the courses in the time scheduled. Students who work in drug stores and other places are advised to make their plans to devote more than the time specified to the courses.

## 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 ex-

aminations 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 a student of the School of Pharmacy who maintains an average of A in all his studies, if recommended by the Dean for this distinction.

## DEPARTMENTS OF INSTRUCTION.

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### GREEK.

PROFESSOR HAGGETT AND ASSISTANT PROFESSOR \_\_\_\_\_.

The general plan of the courses is as follows: Courses 1 to 4 are intended for students who do not present Greek for entrance and are preparatory to the other courses. In these courses special attention will be paid to the mastery of the fundamental forms and constructions of the language, to the acquisition of a vocabulary sufficient for fairly easy and rapid translation, and to a general knowledge of the language sufficient for the translation of simple English into idiomatic Greek. All students who wish to enter the classical department are strongly urged to present the substance of Courses 1 to 4 for entrance. In the remaining courses more attention will be given to the reading of Greek as literature and to the life and thought of the Greeks.

1, 2.—Elementary.—White's First Greek Book. Drill in inflections and constructions. Goodwin and White's Xenophon's Anabasis. Exercises in translating English into Greek.

(T. W. Th. F., 8:30. No credit allowed if presented for entrance.)

3, 4.—Xenophon, Homer.—Xenophon's Anabasis, Books II-IV. Seymour's Iliad of Homer, Books I-III. Greek Prose Composition. Sight translation.

(M. T. Th. F., 10.20. No credit allowed if presented for entrance. Prerequisite, 2.)

5, 6.—Lysias, Homer, Heroditus.—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.

(M., W., Th., F., 9:25. Prerequisite, 4.)

7, 8.—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.

(M., T., W., Th., Float. Prerequisite, 6. Not given in 1903-4.)

9, 10.—History, Philosophy, Oratory.—Thucydides, Sicilian Expedition. Plato, Apology and Crito. Demosthenes, Oration on the Crown. Study of Greek historiography, philosophy, and oratory.

(This course will alternate with 7, 8.)

11, 12.—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.

(M. T. W. F. 11:15. Prerequisite, 10.)

### LATIN.

PROFESSOR THOMSON AND ASSISTANT PROFESSOR \_\_\_\_\_.

The college courses outlined below are planned for students who have already had four years of training in Latin. For those who, on entering the University, substitute modern language credits in part for the necessary amount of Latin, preliminary courses are offered, corresponding to the third and fourth year courses in the High Schools. It is assumed that those who have had the four years of training have gained a mastery of Latin forms and inflections, a general knowledge of syntax, the ability to read Latin correctly, and a vocabulary sufficient to enable them to translate simple passages at sight with considerable ease. Hence, in these courses, less prominence is given to this technical training and attention is directed rather 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, and practice is given in the writ-

ing of Latin. This serves as a review and allows a closer observation of the principles underlying syntax than is practicable in the earlier work. Other special topics taken up are briefly indicated in the statement of the courses.

## COLLEGE COURSES.

1, 2.—Cicero, *De Senectute* and *De Amicitia*; Livy, Books XXI., XXII. Work in syntax, Latin prose composition and sight translation. (M., T., W., Th., Float, both semesters.)

3, 4. Ovid, selections from *Tristia*, *Heroides*, *Amores*, *Fasti* and *Epistulae*, and the continuous reading of several books of the *Metamorphoses*; *Life and Times of Ovid*. Horace, *Odes* and *Epodes*. Prosody, Lyric poetry and the services of the Poet Laureate. Plautus, *Captivi* and *Menaechmi*. Terence, *Andria* and *Phormio*; Roman Drama, Archaic Forms, Syntax and prosody. (M., W., Th., F., 9:25, both semesters. Prerequisite, 1, 2.)

5, 6.—The Letters of Cicero, Seneca, Pliny and Horace. The Familiar Style and its Characteristics, Letter Writing and Private Antiquities, Inside History of the Periods Furnished by the Letters. (M., T., Th., F., 10:20, both semesters. Prerequisite, 3, 4.)

7, 8 and 9, 10.—These are complementary, and together constitute a Teachers' Course, provided especially for those who are preparing to teach Latin in the High Schools. The object of the course is a twofold one: first, to equip the intending teacher with a wider knowledge of Caesar, Cicero and Vergil, and, second, to train him in the best method of teaching these authors and preparatory Latin generally.

Course 7, 8 is designed to attain the first of these ends, and 9, 10 the second.

7, 8.—Collateral Reading.—Caesar: *Viri Romae*, Caesar's *Bellum Civile*, and Suetonius' *Julius Caesar*. Cicero: *Viri Romae*, Letters of Cicero, and Sallust's *Catiline*. Vergil: *Ancient Lives of Vergil* and portions of Vergil's *Bucolics* and

Georgics. (T., Th., 8:30, both semesters. Prerequisite, 5, 6, or it may be taken with 5, 6.)

9, 10.—Lectures on the teaching of preparatory Latin and discussion of matters connected therewith. Practice in the writing of Latin. Portions of Caesar, Cicero, and Vergil will be read in class and the members will take their turns in teaching under the supervision of the instructor. Visits will, from time to time, be made to schools where Latin is taught, and reports will be made by each member of the class. (W., F., 8:30, both semesters. Prerequisite, 7, 8, or it may be taken in connection with 7, 8.)

11, 12.—Latin Grammar.—In this course attention will be directed specially to the uses of the cases and the subjunctive mood, and the usages of various authors will be reported upon by members of the class. (M., W., 11:15. Open to Sophomores, Juniors and Seniors.)

13, 14.—A general course in Greek and Roman Mythology and History. (Open to all students of Greek and Latin. Two hours a week, both semesters.)

#### PRELIMINARY COURSES.

A.—Cicero: Six orations, with drill in Latin grammar and composition. Four hours a week, both semesters.

B.—Vergil: Aeneid, six books. Four hours a week, both semesters.

C.—Pharmaceutical Latin, intended for students in Pharmacy. Four hours a week, both semesters.

#### GERMAN.

PROFESSOR ——— AND ASSISTANT PROFESSOR BOETZKES.

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, and an introduction to some special subjects which will be of interest to those who may desire to teach.

#### SUBJECTS.

1, 2.—Introductory and Intermediate Courses.—The essentials of German grammar, including declension, conjugation, syntax of the cases, special uses of prepositions, pronunciation, composition, standard prose selections, easy plays and some classic such as Schiller's *Wilhelm Tell*. Two sections throughout the year. (M., T., Th., F., 10:20, and M., T., W., F., 11:15.)

1a, 2a.—Supplementary Course.—Conversational forms, dictation, sight reading, etc. Required, in addition to 1 and 2, of students who wish to offer German for entrance. (Sat., 9:25, throughout the year.)

3, 4.—General Literature.—Historical and scientific selections, modern comedy, selections from Schiller and later writers and an outline of the history of German literature. (Two sections throughout the year. T., W., Th., F., 8:30, and M., T., W., Th., Float.)

5, 6.—German Classics.—Schiller's *Braut von Messina* or *Maria Stuart* and Goethe's *Iphigenia auf Tauris* or *Egmont*. (M., F., Float, throughout the year.)

7, 8.—German Classics.—Lessing's *Minna von Barnhelm* and *Nathan der Weise*; also Goethe's *Hermann und Dorothea* and *Faust*, Part 1. M., W., F., 9:25, throughout the year.)

9.—*Faust*, Part II, and Early German Literature. (T., Th., F., 8:30, first semester.)

10.—Historical German Grammar and Methods of Teaching. (T., Th., F., 8.30, second semester.)



## FRENCH.

PROFESSOR ——— AND ASSISTANT PROFESSOR 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. For the student of science special work is given in French reading, including direct use of French scientific periodicals, in order that a more immediate acquaintance with the results of scientific investigation abroad shall be brought within his reach.

## SUBJECTS.

1, 2.—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; dictation and composition. (Section A: T., W., Th., F., 8:30. Section B: M., T., W., F., 11:15. No credit if presented for entrance.)

3, 4.—Nineteenth Century Authors.—Literature of the nineteenth century, based on Fortier's *Sept Grands Auteurs*; study of style and diction. Advanced composition in French. (M., W., Th., F., 9:25. Prerequisite, 2. No credit if presented for entrance.)

5, 6.—History of French Literature.—A general view of French literature from its origin to the present day. Text, Doumic's *Histoire de la Littérature Française*. Outside reading and essay writing on literary subjects. (M., T., Th., 10:20. Prerequisite, 4.)

7, 8.—Lyrics, Romantic Movement.—French lyrics. The history of the Romantic movement; selections from Victor Hugo and other writers. (M., 8:30; W., 10:20. Prerequisite, 4.)

9, 10.—Scientific.—Selections on scientific subjects and in modern French magazines. (W., F., 11:15. Prerequisite, 4.)

11, 12.—**Seventeenth Century Authors.**—Detailed study of the seventeenth century. The leading characteristics of the classic school. Biographical sketches of the great writers of this school, as Corneille, Racine, Moliere, will be given, and their masterpieces read partly in class, partly as outside work. Essays on literary subjects will be written. (T., 9:25; Th., 11:15. Prerequisite, 6, or equivalent.)

### SPANISH.

PROFESSOR OBER AND MISS BLODGETT.

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.

1, 2.—**Elementary.**—Lessons in Spanish on everyday topics; training of the ear and tongue. Essentials of the Spanish grammar; readings from modern Spanish authors. (Section A: T., W., Th., F., 8:30; Section B: M., W., Th., F., 9:25; Section C: M., T., W., F., 11:15.)

3, 4.—**Practical.**—Business correspondence, commercial terms and conversation, readings selected chiefly from Spanish newspapers and magazine articles of the day. (M., T., Th., F., 10:20. Prerequisite, 2.)

5, 6.—**Literary.**—Knapp's Spanish Readings. Spanish poetry. Ford's Spanish Anthology. Essays written on literary subjects. (M., W., Th., F., 9:25. Prerequisite, 2.)

7, 8.—**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. (T., W., Th., 8:30. Prerequisite, 4, 5.)

9, 10.—Spanish Novel.—Study of the Spanish novel, beginning with the "Novela Picaresca," having its origin in Spain, and including the "Novela de Costumbres," the historical novel, and the religious novel. Works read partly in class and partly outside—Gil Blas, Dona Perfecta, Pepita Jimenez, and selections from Perez Galdos and Perez Escrich. (T., 9:25, and Th., 11:15. Prerequisite, 4, 5.)

### RHETORIC AND ORATORY.

PROFESSOR PRIEST AND ASSISTANT PROFESSOR DAGGY.

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 in impromptu speaking.

#### SUBJECTS.

1.—English Composition.—Elements of effective writing in prose, based on practical composition and the study of the best models. Text: Genung's "The Working Principles of Rhetoric." Each student will meet the instructor for private consultation on his work at least once every two weeks. Required of freshmen in all courses. (M., W., Th., F., 9:25, and M., T., W., Th., Float.)

ASSISTANT PROFESSOR DAGGY.

2.—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. Text: Fulton and Trueblood's "Practical Elocution." (M., T., W., Th., Float. First semester.)

PROFESSOR PRIEST.

3.—English Oratory.—Study of Edmund Burke and his contemporaries. Each member of the class will be required to

write an original oration. (T., W., Th., F., 8:30. First semester.)

PROFESSOR PRIEST.

4.—American Oratory.—Study of Webster, Hayne, Calhoun, Everett, Sumner, Phillips, Beecher, Curtis, Grady and others. Each member of the class will be required to revise the oration written the previous semester, and deliver the revised form before the class. (T., W., Th., F., 8:30. Second semester.)

PROFESSOR PRIEST.

5, 6.—Forensics.—Practice in argumentation and formal debating. (M., W., Th., F., 9:25. Throughout the year.)

PROFESSOR PRIEST.

In addition to offering the courses outlined the instructors in the department will assist in supervising the work in the three literary societies, and in training the inter-collegiate debaters and orators.

## ENGLISH LANGUAGE AND LITERATURE.

PROFESSOR PADELFORD AND MR. GARRETT.

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.

1, 2.—Shakespeare and Victorian Literature.—Critical study of a few plays of Shakespeare, with special attention to the laws and technique of the drama; selected essays of Ruskin, Arnold, Newman and Carlyle; Palgrave's Golden Treasury of Songs and Lyrics. The study of the literature is accompanied with practice in English composition and the criticism

of themes. (T., W., Th., F., 8:30, or M., T., W., Th., Float. Prerequisite, Rhetoric 1.)

PROFESSOR PADELFORD AND MR. GARRETT.

3, 4.—Browning and Wordsworth.—The first semester is devoted to Browning; the second to Wordsworth, with supplementary reading in certain other nineteenth century poets. One long theme is required each semester. (M., T., W., Th., 11:15. Prerequisite, 2.)

PROFESSOR PADELFORD.

\*5, 6.—The English Essay.—The essay as a literary form, its technique, its relationships, its history and development. The work of representative essayists is studied. (T., F., 10:20. Throughout the year.)

MR. GARRETT.

7, 8.—The English Lyric.—A study of the requisites of a lyric; selections showing the antecedents, the rise and the fall of the lyric movement of the sixteenth and early seventeenth centuries. (T., F., 10:20, throughout the year.)

MR. GARRETT.

9, 10.—Dante and Milton.—During the first semester Dante's Divine Comedy is studied in the best English translations. The historical, literary and cultural background of the poet and his work receives much attention. During the second semester Milton's Paradise Lost is studied. (M., T., Th., F., 10:20. Prerequisite, 4, 6 or 8.)

PROFESSOR PADELFORD.

\*11, 12.—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. (M., T., Th., F., 10:20. Prerequisite, 4, 6 or 8.)

PROFESSOR PADELFORD.

13, 14.—History of English Literature.—A rapid survey from the earliest times to the present day, designed to give a general idea of the literature as a whole. (M., Th., 10:20. Prerequisite, Rhetoric 1.)

MR. GARRETT.

\*15, 16.—History of American Literature.—A course in American Literature similar to 13, 14. (M., Th., 10:20. Prerequisite, Rhetoric 1.)

MR. GARRETT.

17, 18.—College Entrance Requirements.—A normal course designed especially for those advanced students in English who wish to prepare to teach English in the high school. The different entrance requirements are critically studied, methods of presentation are discussed and bibliographies for school libraries are prepared. (W., F., 8:30. Prerequisite, three literature courses.)

PROFESSOR PADEL FORD.

\*19, 20.—Old and Middle English.—During the first semester the Old English language and literature are studied. Reading is begun at the earliest practicable moment, and the study is made as literary in character as is consistent with a thorough grounding in the rudiments of the language. Some time is given to considering the early English civilization. During the second semester many Middle English texts are read and much attention is given to the historical development of Modern English. (M., W., Th., F., 9:25. Prerequisite, 4, 6 or 8.)

PROFESSOR PADEL FORD.

\*Not to be offered in 1903-04.

## PHILOSOPHY.

PROFESSOR SAVERY.

The aims of the Department of Philosophy are five:

First—To aid students to entertain clear ideas and to think consistently on any subject. To this end the courses in Logic and the Theory of Knowledge are especially adapted.

Second—To help such students as desire to entertain clear ideas and to think consistently and independently on the ultimate problems of reality, the human self, the physical world and God, and to aid them to steer clear of the errors of popular mythology and an easy skepticism.

Third—To furnish a part of the general culture of some students by acquainting them with the thoughts of the great thinkers of the past. (History of Philosophy.)

Fourth—To teach worthy moral ideas and to elucidate a proper basis for conduct. (Ethics.)

Fifth—To teach the facts of Psychology to those interested in the study of the mind or in the allied studies of Biology, Sociology or Pedagogy. (Psychology, elementary, experimental and advanced.)

#### SUBJECTS.

1.—Logis.—(a) Formal Logic. A study of the difference between good and bad reasoning. Analysis of fallacies. (b) Logic of Science. A study of the methods and aims of the natural sciences. Recitations and discussions; a few lectures. Texts: Jevons' Lessons in Logic and Fowler's Inductive Logic. Required for Juniors. (M., T., W., Th., Float. First semester.)

2.—Elementary Psychology.—Study of the facts and laws of consciousness and their relation to the body. Recitations and lectures. Text: Calkins' Introduction to Psychology. Required reading in James' Larger Psychology. Required for Juniors. (M., T., W., Th., Float. Second semester.)

3.—History of Ancient and Mediaeval Philosophy.—Lectures, reading of text books and extracts from the philosophers. Text: Wiber's History of Philosophy. Elective for Juniors and Seniors. (M., W., F., 11:15. First semester.)

4.—History of Modern Philosophy—Continuation of Philosophy 3. (M., W., F., 11:15. Second semester.)

5.—Ethics.—An analysis of conduct, the nature of the good, duty, the moral virtues and institutions, moral progress, relation of morality to religion. Lectures and required reading of Mill's Utilitarianism and Mackenzie's Manual of Ethics. (M., Th., F., 10:20. First semester. Prerequisite, Philosophy 1, 2.)

6.—Theory of Knowledge.—First, a study of the nature of the judgment. Secondly, the relation of the judgment to reality; the problem of realism versus idealism. Thirdly, the theory of the absolute, or the philosophic God, based on the above. Lectures and discussions. Text. Hobhouse's Theory of Knowledge, Part 1; Bradley's Appearance and Reality, chapters 1 to 3 and 13 to 15; Royce's Religious Aspect of Philosophy, chapter 11. (M., Th., F., 10:20. Prerequisite, Philosophy 1, 2.)

7.—Experimental Psychology.—An introduction to laboratory methods and results in Psychology. Titchener's Manual followed. (T., F., 1-3:30. First semester. Prerequisite, Philosophy 2.)

8.—Advanced Psychology.—Seminary. The psychology of the processes of thought and will. Papers and discussions. This course is complementary to Philosophy 6, and the two may well be taken together. (Tu., 1-3. Second semester. Prerequisite, Philosophy 2.)

9, 10.—Metaphysics.—Lectures, discussions, required reading. (Prerequisite, Philosophy 1, 2. Three hours, throughout the year. Omitted in 1903-4.)

#### PSYCHOLOGICAL LABORATORY.

A small laboratory has now been established and equipped with such apparatus as is necessary to carry on the experiments outlined in the Introductory Manual of Titchener.

#### PEDAGOGY.

##### PROFESSOR YODER.

The work in this department gives a knowledge of the child on the one side and a training in the presentation of subject-matter on the other. It is not academic and should not be undertaken until near the close of the college course. The normal diploma will be granted to students who have completed the following subjects: The child, 4 hours; the



course of study, 4 hours; history of education, 4 hours. Major students will take the above 12 hours and 12 hours additional work arranged by the instructor. Before entering the department students should have completed one year in zoology, one year in psychology; the course in sociology is required of all students in the department.

1.—**The Child.**—First semester; textbook, one laboratory period and one lecture each week; deals with the physical and mental growth of the child and adolescent; ten characterizations of children from literature; observation of children with reports. (M., W., Th., F., 9:25.)

2.—**The Course of Study.**—First semester, repeated during the second semester; curriculum of the secondary school; various texts and reports, one visit to a high school and one lecture each week; deals with the organization of the work of a high school; study of the current volume of the *School Review*. (M., T., W., F., 11:15.)

3.—**School Organization.**—First semester; textbook, visits to various schools and one lecture each week; examination of city school systems; elements of curricula; to be followed by school supervision; study of the *Educational Review* and the *Elementary Teacher*. (M., T., Th., F., 10:20.)

4.—**Journal Club.**—Throughout the year, one hour each semester; reports, summaries and discussions of current educational literature; open to major students only. (Time to be arranged.)

5.—**Problems.**—Throughout the year, two hours each semester; each major student will select, with the advice of the instructor, an educational problem for study during the semester. The results of the study will be presented to the department in the form of reports and a final thesis; open to major students only. (M., W., Float.)

6.—**Philosophy of Education.**—Throughout the year, one hour each semester; a course of lectures, discussions, assigned readings and reports; an attempt to formulate underlying principles of general education; first semester, institutional

and individualistic forces; second semester, social pedagogy; a part of the time of each semester will be used to discuss state school law. (F., Float.)

7.—History of Education.—Second semester; textbook and one lecture each week; an attempt to outline educational theories and practices of the great nations; the studies will center around Plato and Aristotle, Cicero, Alcuin, the renaissance, Comenius, Rousseau, Pestalozzi and Froebel, Herbart, Spencer, Mann, Stanley Hall. (T., W., Th., F., 8:30.)

8.—School Supervision.—Second semester; open to students who have taught and anticipate supervision; must be preceded by school organization. (M., T., Th., F., 10:20.)

A club of teachers will be organized to study the industrial arts, if a suitable time and place can be found.

#### 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.

1.—Elements of Political Economy.—(M., W., Th., F., 9:25. First semester.)

2.—Industrial Problems.—The subjects discussed in this course include the evils of unrestricted competition, the labor question, monopolies and trusts. This course must be preceded by 1. (M., W., Th., F., 9:25. Second semester.)

3.—Principles of Sociology.—A study of the development and functions of the family, church, state and other social institutions. (M., Th., 10:20. First semester.)

4.—Principles of Sociology.—Continuation of 3. (M., Th., 10:20. Second semester.)

5.—Money and Banking.—Open to students who have had 1. (T., F., 10:20. First semester.)

6.—The Principles and Methods of Taxation. (T., F., 10:20. Second semester.)

7.—Constitutional Government.—In this course the American government will be considered historically and comparatively, special attention being given to the influence of the political theory of checks and balances. Open to students who have had sufficient preparation in English and American Constitutional History. (M., T., W., F., 11:15. First semester.)

8.—Constitutional Government.—Continuation of 7. (M., T., W., F., 11:15. Second semester.)

9.—The Economic History of England. (T., Th., 8:30. First semester.)

10...Principles of International Law. (T., Th., 8:30. Second semester.)

## HISTORY.

PROFESSOR MEANY AND ASSISTANT PROFESSOR ———.

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 few years. 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.

## SUBJECTS.

1.—The American Colonies, the Revolution and the Constitution.—Discussion of the period from 1492 to 1829. Lectures, collateral reading and reports. (M., W., Th., F., 9:25. First semester.)

PROFESSOR MEANY.

2.—Era of Slavery, Civil War and Reconstruction.—Discussion of the period from 1829 to 1889. Lectures, collateral

reading and reports. (M., W., Th., F., 9:25. Second semester.)

PROFESSOR MEANY.

3, 4.—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. (M., W., Th., F., 9:25.)

ASSISTANT PROFESSOR ———.

5.—Europe in the Middle Ages.—Emerson's Introduction to the Middle Ages and his Mediaeval Europe are used as a basis. (M., T., Th., F., 10:20. First semester.)

ASSISTANT PROFESSOR ———.

6.—Modern Europe.—Schwill's Modern Europe as a basis. (M., T., Th., F., 10:20. Second semester.)

ASSISTANT PROFESSOR ———.

7.—English Constitution.—Macy as text, with collateral readings and reports. (M., T., W., F., 11:15. First semester.)

ASSISTANT PROFESSOR ———.

8.—French Revolution.—Lectures, collateral reading, and theses. Gardiner used as a guide. (M., T., W., F., 11:15. Second semester.)

ASSISTANT PROFESSOR ———.

9, 10.—Northwestern History.—From the earliest voyages of discovery to the settlement and organization of the territories. Lectures. Theses on assigned topics. (M., W., 11:15, throughout the year.)

PROFESSOR MEANY.

11.—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. (M., T., Th., F., 10:20. First semester.)

PROFESSOR MEANY.

12.—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. (M., T., Th., F., 10:20. Second semester.)

PROFESSOR MEANY.

13, 14.—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.

A.—Makers of the Nation.—Lectures on the lives of Washington, Franklin, Jefferson, Jackson, Clay, Webster, Lincoln, Grant, Lee and others. (Saturday, 9:25. Throughout the year.)

B.—Local History.—Lectures and research work with special reference to the needs of school teachers in this field. (Saturday, 10:20. Throughout the year.)

C.—Modern European Statesmen.—Lectures, collateral reading and reports. (Saturday, 11:15. Throughout the year.)

PROFESSOR MEANY AND ASSISTANT PROFESSOR \_\_\_\_\_.

### CHEMISTRY.

PROFESSOR BYERS, ASSISTANT PROFESSORS KNIGHT AND JOHNSON, MR. LEWIS AND MR. HOPKINS.

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. It is also realized that the subject is eminently practical, and hence it is the desire of those in charge so to guide the student that he may fit himself for work in those lines in which chemistry has become an applied science.

### SUBJECTS.

O.—To meet the needs of those students who come from schools in which chemistry is not required for graduation. It consists of one recitation and four laboratory hours per week throughout the year, but must be taken, if at all, in conjunction with chemistry 1, 2, which it is designed to supplement and make possible for the unprepared student. Where the student has admission clear it will be given two university credits per semester. Where offered for entrance require-

ment it will count as one credit. (M., 11:15. Laboratory work, 8:30-12:30, Saturday.)

1, 2.—General Inorganic.—Experimental lectures supplemented by quizzes. Laboratory work during first semester on selected illustrative experiments. Second semester, quantitative analysis. Remsen's Advanced Course. Smith's Laboratory Manual. Notes on qualitative analysis. Prerequisite, a high school course in chemistry or simultaneous taking of Chemistry O. (Lectures T., W., F., 11:15. Laboratory work for engineering students, T., Th. afternoons. For other students, to be arranged on two days selected from M., W., F.) PROFESSOR BYERS, ASSISTANT PROFESSOR KNIGHT AND MR. LEWIS.

3, 4.—Organic.—A study of the typical compounds of carbon, special stress being laid upon the principles of their classification; organic preparation, and practical study of important compounds. Remsen's Briefer course as lecture syllabus. Orndorff's Manual. (Lectures T., Th., F., 10:20. Laboratory, T., Th., afternoons.)

PROFESSOR BYERS AND ASSISTANT PROFESSOR JOHNSON.

5.—Advanced Qualitative Analysis.—Lectures on Theory of solution and its applications to qualitative analysis. Laboratory work, using Volhard as a guide and Fresenius for reference. (Lectures, M., W., 9:25. First semester. Prerequisite, 2.)

PROFESSOR BYERS AND ASSISTANT PROFESSOR KNIGHT.

6.—Qualitative Analysis.—Gravimetric and volumetric analysis. Talbot's Quantitative Analysis. (Twelve laboratory hours per week, M., W., F., afternoons and S. morning. Credit, four semester hours. Prerequisite, 2.)

ASSISTANT PROFESSOR KNIGHT.

7.—Industrial Chemistry.—Required of sophomore civil, mechanical and electrical engineers. A lecture course of the commercial methods of manufacture of compounds of great industrial importance. The course is supplemented by Saturday excursions to plants in and near the city of Seattle,

Everett and Tacoma. Thorpe's Industrial Chemistry as guide and reference. (T., F., 9:25. First semester.)

PROFESSOR BYERS.

8.—Metallurgy of Iron and Steel.—Required of sophomore civil, electrical and mechanical engineers and junior mining engineers. A lecture course on the manufacture and properties of iron and steel products and by-products. This course will be supplemented by a trip to the furnaces at Port Townsend and by blue print drawings and lantern slides. Modern furnaces and machinery in use at the Illinois steel works. (M., W., 9:25. Second semester.)

PROFESSOR BYERS.

9.—Physical Chemistry.—An elementary course which will consist of lectures upon and laboratory demonstration of the fundamental principles of chemistry based on physical measurements. Freezing and boiling-point methods of molecular weight determination. Theory of ionization, degree of ionization and speed of ions, etc. (Lectures, T., Th., 11:15. Laboratory, M., W. First semester. Prerequisite, Chemistry 6 and College Physics.)

ASSISTANT PROFESSOR KNIGHT.

10.—Inorganic Preparations.—Special methods of preparation of important inorganic compounds. Designed to illustrate special chemical principles. (Twelve laboratory hours per week. Second semester. Four semester credits. Prerequisite, Chemistry 6.)

ASSISTANT PROFESSOR KNIGHT.

11, 12.—Special Methods.—Quantitative analysis of gas, water, foods, food adulterants, etc. (Twelve hours' laboratory work, throughout the year. Four semester credits.)

ASSISTANT PROFESSOR KNIGHT.

13, 14.—Organic Preparations.—An advanced course in organic work which requires reference to original literature and which will render necessary a reading knowledge of German. This course will be supplemented by a course of lectures on the history of chemistry. (Two lectures and eight to

sixteen hours of laboratory work per week for six credits per semester. Prerequisite, Chemistry 4, 6.)

PROFESSOR BYERS AND ASSISTANT PROFESSOR KNIGHT.

15.—Investigation.—Any student who has completed at least three years' work in chemistry may, if he desires, undertake some original investigation under the direction of one of the instructors. Such work will not be encouraged, however, except when the student is presenting himself for a master's degree.

Prospector's Course.—To meet a demand, a special course in chemistry will be given to miners who may enter January 1, and will continue to May 1. It will not require any previous knowledge of chemistry, and will be merged into a course in qualitative analysis. The textbook required is Hessler & Smith. (W., F., 8:30. Laboratory work, Saturday morning.)

MR. LEWIS.

## PHYSICS.

PROFESSOR OSBORN, MR. BRAKEL AND MR. RATHBUN.

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; secondly, 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.

### SUBJECTS.

O.—Preparatory Physics.—M., T., Th., 10:20. Laboratory period, T., 1-4.)

MR. BRAKEL AND MR. RATHBUN.

1.—Experimental Physics.—This course is fundamental and aims to make the student familiar with the phenomena of physics. Students presenting note books from high school physical laboratories approved by this department, by elect-



ing, may be excused from the laboratory work. (Lectures, M., W., Th., 9:25. Laboratory, F., 1-4. Second semester. Four hours credit.)

PROFESSOR OSBORN, MR. BRAKEL AND MR. RATHBUN.

2, 3.—General Physics. (Lectures, M., F., 8:30. Laboratory, M., W., 1-4. Four hours credit. Prerequisites, Physics 1 and Mathematics 1, 2.)

PROFESSOR OSBORN AND MR. BRAKEL.

4.—Electrical Measurements. (Lecture, M., 10:20. Two or three laboratory periods. Three or 4 hours' credit. First semester. Prerequisites, Physics 2, 3.)

PROFESSOR OSBORN AND MR. BRAKEL.

5.—Primary and Secondary Batteries. (Lecture, Th., 10:20. One or two laboratory periods. Two or 3 hours' credit. First semester. Prerequisites, Physics 2, 3.)

PROFESSOR OSBORN AND MR. BRAKEL.

6.—Industrial Electricity. (Lectures, T., Th., 8:30. Second semester. Two hours' credit. Prerequisite, Physics 2, 3.)

PROFESSOR OSBORN.

7.—Light or Heat.—Preston. (One lecture and one laboratory period. Two hours' credit. M., W., Float. Second semester. Prerequisites, Physics 2, 3, and Calculus.)

PROFESSOR OSBORN.

8.—Mathematical Electricity. (Lectures, T., Th., Float. First semester. Prerequisites, Physics 2, 3, and Calculus.)

PROFESSOR OSBORN.

9.—Graduate Work.—Courses for graduate students will be offered as there is a call for them.

## GENERAL BIOLOGY.

### SUBJECT.

1.—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. Second semester.)

PROFESSORS FOSTER, KINCAID, ROBERTS, AND OTHERS.

### BOTANY.

PROFESSOR FOSTER.

As introductory to other courses in Botany students are expected to have courses 1 and 2 or their equivalent. Students desiring to elect a major in botany should have in addition to these Zoology 1 and 2 as early as the sophomore year.

1, 2, 3, 4 are general courses intended to lay a foundation for independent investigation along more specific lines to be taken up later. A good working knowledge of German and French must be acquired by the student who is planning to do this.

For the teachers' course subjects 1, 2 and either 3, 4 or 3a, 4a are required, and in addition 1a, 2a and 9 are specially recommended. 5 and 6 are planned for graduate courses.

#### SUBJECTS.

1.—Elements of Botany.—An elementary study of protoplasm. Types of algae; structure, development history, relation to environment and classification. Types of fungi; classification, life history, distribution and economic phases of fungi. Lectures and laboratory work. (M., W., 9:25. First semester. Credit 4 hours.)

2.—Elements of Botany.—Continuation of 1. Liverworts, mosses, ferns, club-mosses and flowering plants. Alternation of generations and problems of genetic relationship as indicated by similarity of structure and parallel development. A study of types intended to give a general view of the plant kingdom. Lectures and laboratory work. (M., W., 9:25. Second semester. Credit 4 hours.)

1a, 2a.—Lectures, quizzes and laboratory work on types supplementary to 1, 2. Throughout the year. Credit to be arranged.

3.—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. (T., Th., 10:20. First semester. Credit, four hours.)

3a.—A briefer course in cell morphology and physiology. To be taken by special permission. (Credit, two hours.)

4.—Plant Physiology.—General physiology of the plant in its relation to environment. Problems in nutrition, growth and irritability. Lectures and laboratory work. (T., Th., 10:20. Second semester. Credit, four hours.)

4a.—A briefer course in Plant Physiology. To be taken by special permission. (Credit, two hours.)

5.—Experimental Physiology.—Special problems in plant physiology; research work. To be elected only by permission. (First semester. Credit to be arranged.)

6.—Cell Structure and Physiology.—Problems in cytology and physiology of the plant cell. Research work. To be elected only by permission. (Second semester. Credit to be arranged.)

7.—Reproduction and Embryology in Spermaphytes. (Lectures and laboratory work. First semester. Credit to be arranged.)

8.—Morphology of Spermaphytes.—A study of the tissues and life history of the spermaphyte. Lectures and laboratory work. (Second semester. Credit to be arranged.)

9.—History of Botany.—Biography; lectures on the development of theories and problems in the science of botany. (First semester. Credit, one hour.)

10, 11.—Field Club.—Collection, preservation, identification and study of specimens of the local flora, with occasional lectures. (Open to students who are prepared; either semester. Credit to be arranged.)

12, 13.—Journal Club.—Important papers in the current literature of botany are reviewed and discussed by the instruc-

tors and advanced students. (Credit, given to advanced students only, one hour. One meeting a week.)

14.—Pharmaceutical Botany. (Th., F., 9:25.)

### 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, psychology and palaeontology.

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 to enter the medical profession.

The environment of the university offers an unrivaled opportunity for the study of natural history, inasmuch as the proximity of the salt water makes possible the study of marine animals in the living condition, an advantage denied to the great majority of educational institutions.

#### SUBJECTS.

1.—Elements of Zoology.—A general review of the animal kingdom, with especial reference to the structure, classification, and habits 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 phyle are thoroughly investigated in the laboratory and field. (M., W., 11:15. Six laboratory hours. Credit, four hours.)

2.—Elements of Zoology.—A continuation of course 1.

3.—Comparative Anatomy of Vertebrates.—A study of the comparative structure of the principal types of backboned

animals with particular reference to the skeleton. This course also involves some training in the technique of histology. (Lectures M., W., 9:25. Six laboratory hours; first semester. Credit, four hours.)

4.—**Vertebrate Embryology.**—An investigation of the comparative developmental history of the vertebrates, based upon the embryonic development of the chick, with supplementary work upon other vertebrate forms. (Lectures M., W., 9:25. Laboratory hours; second semester. Credit, four hours.)

5.—**Physiology.**—A general course, dealing with the physiological activities of the human body. No prerequisite is demanded for this work, but it is advised that it be preceded or accompanied by a course in chemistry. (Lectures W., F., 8:30. Three laboratory hours; first semester. Credit, two hours.)

6.—**Physiology.**—A continuation of course 5.

7.—**Entomology.**—The structure, classification and natural history of insects. This course involves the collection, preservation, and identification of the insects found in the local fauna. (Lectures T., Th., 10:20. Six laboratory hours; first semester. Credit, four hours.)

8.—**Entomology.**—A continuation of course 7.

9.—**Histology.**—The investigation of the microscopic structure of vertebrate tissues by the paraffine and collection methods. To be elected only by special permission. (Credit to be arranged.)

10.—**Neurology.**—A study of the gross and fine structure of the nervous system, involving the application of the Golgi method. To be elected only by special permission. (Credit to be arranged.)

11.—**History.**—Lectures upon the historical development of zoological science, including the rise of its more important theories and the life work of representative naturalists. Prerequisite, courses 1 and 2, or their equivalent. (Lectures T., 8:30; first semester. Credit, one hour.)

12.—Problems in Evolution.—A discussion of fundamental biological problems, including natural selection, utility and heredity, together with reviews of important contemporary articles. (One period a week. Credit, one hour.)

13.—Research.—Designed for advanced students who are capable of undertaking research under the direction of the instructor in charge. (Credit to be arranged.)

14.—Research.—A continuation of course 13.

### FORESTRY.

1, 2.—History and progress of forestry as a science; problems presented for solution in the Pacific Northwest; uses and characteristics of our native trees. Lectures, collateral reading and field work. (T., Th., 11:15; throughout the year.)

PROFESSOR MEANY.

### 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 an 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.

1, 2.—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 exercises and field work. (Lectures or recitations M., T., Th., 10:20. Four laboratory hours a week, M., W., F. afternoons. Credit, four hours.)

3, 4.—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*. (Lectures M., W., 11:15. Four laboratory hours a week, T., Th. afternoons. Credit, three hours.)

5.—Meteorology.—A general consideration of the atmosphere; winds and storms; the causes and distribution of rainfall; weather; climate, etc. Waldo's *Elementary Meteorology*. (Recitations M., W., 9:25. Two laboratory hours a week; first semester.)

6.—(a) Oceanography.—A course of lectures upon the ocean, dealing with such features as composition, temperature, waves, currents, tides, life, etc. (Lectures and recitations M., W., 9:25. Two laboratory hours a week; first half of second semester.)

(b) Physiography.—A course of lectures on the earth's surface features, considered in the light of their origin and

history. (Lectures and recitations M., W., 9:25. Two laboratory hours a week; last half of second semester.)

(5 and 6 constitute an advanced or college course in physical geography. This course is recommended for those who are preparing to teach in the public schools.)

7.—**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; 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. (T., W., Th., Float; first semester. Prerequisites, 2, 4.)

8.—**Petrography.**—A study of the distinguishing characteristics of the different groups and species of rocks, with the methods of classification employed. Lectures, reading, laboratory exercises and field work, with Rosenbusch's *Physiography of the Rockforming Minerals* and Kemp's *Handbook of Rocks* as reference books. (Lectures or recitations T., W., Th., Float. Four laboratory hours a week; second semester. Prerequisites, 2, 4.)

9.—**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; either semester. 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.

1.—**General Astronomy.**—Outline of fundamental facts in regard to the solar system and the stellar universe. The ob-



servatory is used for illustrative purposes. Young's Manual of Astronomy. (M., W., 9:25; first semester. Prerequisites, Mathematics 1 and Preparatory Physics.)

2.—Practical Astronomy and Spherical Trigonometry.—Use of instruments, the solution of spherical triangles, and the determination of time, latitude, and longitude. Campbell's Practical Astronomy, Second Edition. (M., W., 9:25; second semester. Prerequisite, 1.)

### 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 1, 2, 3, 4, 5, 6, of which 1 is required of all students in the College of Liberal Arts, are intended for the first class of students. They include a brief course in higher algebra, trigonometry, solid geometry, analytic geometry, and calculus.

Subjects 1a, 2a, 3, 4, 5a, 6a, all of which are required of students in the College of Engineering, are intended for the second class of students. They include the same branches of mathematics as are included in subjects 1, 2, 3, 4, 5, 6, but the courses in higher algebra, trigonometry, analytic geometry and calculus are somewhat longer and more comprehensive.

Of the other courses, Solid Analytic Geometry and Differential Equations are valuable to the student of higher Physics, Least Squares is important in Civil Engineering, and the rest are mainly of interest to the student of pure mathematics.

### SUBJECTS.

1.—Higher Algebra and Trigonometry.—This course can be

taken either the first or the second semester. There will be two sections each semester. Section A: T., W., Th., F., 8:30; first semester.

PROFESSOR RANUM.

(Section B: M., T., W., Th., Float; first semester. Section C: M., W., Th., F., 9:25; second semester. Section D: M., T., W., Th., Float; second semester.)

ASSISTANT PROFESSOR GOULD.

2.—Higher Algebra.—Continuation of 1. (T., W., Th., F., 8:30; second semester. Prerequisite, 1.)

PROFESSOR RANUM.

1a, 2a.—Higher Algebra and Trigonometry.—For engineering students. (Section A: T., W., Th., F., 8:30, throughout the year. Prerequisites, elementary algebra and plane geometry. Section B: M., T., Th., F., 10:20 throughout the year.)

ASSISTANT PROFESSOR GOULD.

3, 4.—Solid Geometry.—Supplementary to 1, 2; or to 1a, 2a. (M., W., 11:15, throughout the year. Prerequisites, elementary algebra and plane geometry.)

ASSISTANT PROFESSOR GOULD.

5, 6.—Analytic Geometry and Calculus.—A short course whose purpose is general culture. (M., T., Th., F., 10:20, throughout the year. Prerequisite, 1.)

PROFESSOR RANUM.

5a.—Analytic Geometry.—For engineering students. (M., T., W., Th., Float; first semester. Prerequisites, 1a, 2a, 3, 4.)

PROFESSOR RANUM.

6a.—Calculus.—For engineering students. (M., 8:30; T., 9:25; W., 10:20 and 11:15; Th., 11:15; F., 11:15. Prerequisite, 5a.)

PROFESSOR RANUM.

7, 8.—Solid Analytic Geometry. W., F., 9:25, throughout the year. Prerequisites, 5, 6, or 5a, 6a.)

PROFESSOR RANUM.

9, 10.—Non-Euclidean Geometry. (M., T., 11:15, throughout the year. Prerequisites, 5, 6.)

PROFESSOR RANUM.

11.—Least Squares. (W., F., 11:15; first semester. Prerequisites, 5, 6.)

PROFESSOR RANUM.

12.—Differential Equations.—This course will not be given in 1903-04.

13.—Modern Analytic Geometry.—Includes duality, homogeneous co-ordinates, projection. (Two times a week throughout the year.)

PROFESSOR RANUM.

Besides these collegiate courses there will be one sub-freshman course given in 1903-04, namely:

Preparatory Algebra. Review of elementary algebra, including quadratics. Two times a week throughout the year. Prerequisite, one year of elementary algebra.)

### CIVIL ENGINEERING.

PROFESSOR FULLER AND MR. \_\_\_\_\_.

#### SUBJECTS.

1.—Mechanical Drawing.—Instruction in the use of instruments and practice in linear drawing; construction from printed descriptions in isometric, cabinet and orthographic projections; plane sections and section lining; intersection of simple geometric forms; lettering, including the Roman and Gothic alphabets and a practical freehand alphabet for working drawing. (M., W., F., 1-4; T., 8:30-10:20; first semester. Four hours' credit.)

MR. \_\_\_\_\_.

2a, 2b.—Descriptive Geometry.—Projections and rotations of points, lines, planes, curved and warped surfaces; shades, shadows and linear perspective. (Lecture and recitations, M., W., 11:15. Drawing periods, T., F., 10:20-12:10. First semester, four hours' credit. Second semester, two hours'

credit, M. and T., periods only. Prerequisite, Drawing, 1, and Mathematics, 2a.)

Mr. \_\_\_\_\_.

**3a.—Plane Surveying.**—Theory of chain, compass, and transit surveying, and leveling; the adjustment and use of instruments; computation of area, maps. (Lectures M., 8:30; W., 10:20. Field work M., W., 1-4. Second semester. Credit four hours. Prerequisite, Drawing 1, preceded or accompanied by Mathematics 2 or 2a.)

Mr. \_\_\_\_\_.

**3b.—City Surveying.**—Study of the precision necessary to be obtained; survey of a convenient portion of the city, and the field and office work of laying out a new addition. (Lecture W., 9:25. Field work, T., Th., 1-4. First semester, until Christmas recess. Pen topography will be taken up for the remainder of the semester, T., Th., F., 1-4. Total credit three hours. Prerequisite, 3a.)

Mr. \_\_\_\_\_.

**3c.—Topographic Surveying.**—Colored topography, until Easter recess. (T., Th., F., 1-4). Thereafter, base line measurement; transit triangulation; plane table and stadia work; maps. (Lecture, W., 9:25; field work, T., Th., 1-4; second semester. Total credit three hours.)

Mr. \_\_\_\_\_.

**3d.—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. (Second semester. Prerequisites, 3c, preceded or accompanied by Astronomy. Credit, two hours. Not offered during 1903-04.)

Mr. \_\_\_\_\_.

**4a, 4b.—Railroad.**—Location, construction and economics. 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.

(Class work, W., F., 8:30; field and office, S., 8:30-3:00. Credit, four hours. Both semesters. Prerequisite, 3c.)

Mr. \_\_\_\_\_.

5a, 5b.—Mechanics.—Statics, dynamics and mechanics of materials. Lectures and recitations throughout the year. Special attention is paid to practical applications. Original problems form a prominent feature. (M., Tl, W., Th., Float. Prerequisites, Mathematics, 6a, and Physics, 3.)

PROFESSOR FULLER.

6a.—Theoretic Hydraulics.—Hydrostatic pressure; immersion and floatation; steady flow of water through pipes and orifices, over weirs and in open channels. (Lectures and recitation, four hours a week. First semester until Christmas recess, 8:30. Three hours credit. Prerequisite, 5b.)

PROFESSOR FULLER.

6b.—Hydraulic Motors.—Special attention is given to the theoretic treatment of wheels of the Pelton type and to turbines. Laboratory tests are made of small motors and meters. (Lectures and recitations three times a week, 8:30. Laboratory work, Sat., 9-12, from Christmas recess to Easter recess. Credit, two hours. Prerequisite, 6a.)

PROFESSOR FULLER.

6c.—Water Supply.—The design and construction of municipal water supply systems. Lectures, recitations and the design of an imaginary system. The last few periods will be devoted to lectures on irrigation and sewerage. (Four hours a week, second semester after Easter recess, 8:30. Three hours credit.)

PROFESSOR FULLER.

7a, 7b.—Bridges.—Stresses in simple trusses 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 four hours. Prerequisites, 2b, 5b. Not offered during 1903-04.)

PROFESSOR FULLER.

7c, 7d.—Higher Structures.—Draw-bridges, cantilever bridges, suspension bridges, and metallic arches; stresses and deflections. Lectures, recitations and graphic determinations. (Credit, two hours throughout the year; must be preceded or accompanied by 7a, 7b. Not offered during 1903-04.)

PROFESSOR FULLER.

8.—Masonry Construction.—A study of the properties of stone, brick, cement and concrete, and their use in foundations, dams, piers, abutments and retaining walls. Theory and design of masonry arches. Lectures, recitations and cement laboratory work. (Four hours' credit; second semester; 11:15. Prerequisites, 2b, preceded or accompanied by 5b.)

PROFESSOR FULLER.

9.—Roads and Pavements.—Fundamental principles of the location, construction, and maintenance of country roads and city streets. Lectures, recitations and assigned reading. (Two hours credit; first semester; Th., F., 9:25. Prerequisites, 3c and 8.)

PROFESSOR FULLER.

10.—Structural Materials.—A study of the physical properties of wood, iron, steel, stone, brick, etc. Lectures and laboratory work. (Two hours' credit; first semester; M., T., 1-4. Prerequisite, 5b.)

PROFESSOR FULLER.

11.—Contracts and Specifications.—Lectures on the law of contracts and a study of engineering specifications. (One hour a week; second semester. Not offered during 1903-04.)

### ELECTRICAL ENGINEERING.

PROFESSOR OSBORN AND ASSISTANT PROFESSOR HEINE.

This department is associated with the Department of Physics.

#### SUBJECTS.

1a, 1b.—Dynamo Electric Machinery.—Theory of magnetic circuit, construction, operation and characteristics of direct

current dynamos. (M., W., 9:25. Two hours credit. Prerequisite, Physics, 2, 3.)

ASSISTANT PROFESSOR HEINE.

1c.—Short Course in Dynamo Testing. (T., Th., 1-4. First semester. Two hours credit.)

ASSISTANT PROFESSOR HEINE.

1d.—Dynamo Testing.—Experimental study of direct current machinery. (T., F., 1-4, and S., 8-12. Second semester. Prerequisite, 1b. Four hours credit.)

ASSISTANT PROFESSOR HEINE.

1e.—Dynamo Design.—Complete design of one direct current machine. (One hour credit. Second semester.)

ASSISTANT PROFESSOR HEINE.

2.—Electric Railways.—Electric circuit, roadbed, rolling stock, construction and operation. (M., Th., 10:30. First semester. Two hours credit.)

ASSISTANT PROFESSOR HEINE.

3.—Industrial Electricity.—Outline of industrial application, Ohm's law, wiring, etc. (T., Th., 8:30. Second semester. Prerequisite, Physics, 1. Two hours credit.)

PROFESSOR OSBORN.

4.—Electrical Measurements. (Recitation, M., 10:20. Three laboratory periods. First semester. Four hours credit. Prerequisite, Physics, 2, 3.)

PROFESSOR OSBORN.

5.—Primary and Secondary Batteries. (Recitation, Th., 10:20. One laboratory period. First semester. Prerequisite, Physics, 2, 3. Two hours credit.)

PROFESSOR OSBORN.

6a, 6b.—Alternating Currents.—Theory and applications of alternating currents, power measurements, transformers. (T., F., 10:20, throughout the year. Two hours credit.)

ASSISTANT PROFESSOR HEINE.

6c, 6d.—Alternating Current Testing. (M., W., 1-4. Two hours credit.)

ASSISTANT PROFESSOR HEINE.

7a, 7b.—Commercial Testing. (T., Th., 1-4, and S., 8-12. Nine hours per week during the first semester and six hours during the second semester. Three and two hours credit. Prerequisites, 4, 5.)

ASSISTANT PROFESSOR HEINE.

8a, 8b.—Electric Lighting and Power Transmission.—Construction and operation of transmission systems; lighting plants and their operation. (M., T., W., Float. Throughout the year. Three hours credit.)

ASSISTANT PROFESSOR HEINE.

9.—Telephones and Telegraphs.—Theory of telephones, telephone systems, submarine, multiplex and wireless telegraphy. (T., Th., 11:15. Second semester. Two hours credit.)

ASSISTANT PROFESSOR HEINE.

### MECHANICAL ENGINEERING.

ASSISTANT PROFESSOR ——— AND MR. HAMPSON.

1a.—Work in Wood.—A systematic course of exercises, showing the use of the different carpenters' tools and the methods of constructing various forms of splices, dovetails, joints, panels, etc. Turning plain cylinders, cutting square shoulders, turning plain and compound curves, chucking, etc. A short course of lectures will be given on the care of wood-working tools and how to select them. (Two hours credit. First semester.)

MR. HAMPSON.

1b.—Pattern Making.—The construction of various forms of patterns, core-boxes, etc. Lectures on the use of the patternmakers' scale will be given. Shrinkage and its effects will be discussed at length; the proper distribution of metal to secure the best results will be taken up; the close relation existing between the pattern shop and foundry will be discussed. (Two hours credit. Second semester.)

MR. HAMPSON.

2.—Foundry Work.—Bench and floor moulding, core-making and casting in iron and brass. (Not offered in 1903-04.)



**3a.—Forge Work.**—Iron and steel forging, a systematic course of exercises in the use and care of smiths' tools. Management of fire. Use of anvil and swage-block. Drawing, taper, square and parallel work. Bending, hardening and tempering tools for forge and machine work. Tempering drills, dies, taps and springs. (Two hours credit. First semester.)

MR. HAMPSON.

**4a.—Bench Work in Iron.**—Filing, chipping and scarfing. The use of the cold chisel, the file and the scraper. Exercises in chipping, straight and grooved surfaces, surface and round filing; polishing, and the construction of surface plates. Use of surface block and gauge, marking off work for lathes, etc. (Two hours credit. Second semester.)

MR. HAMPSON.

**4b.—Machine Work in Iron.**—Plain and taper turning, boring, thread cutting, drilling, planing, milling and polishing; the construction of taps, dies, reamers and complete machines; practice will be given in lining up shafting, etc. (Two hours credit. First semester.)

MR. HAMPSON.

**5.—Elements of Machine Design.**—Details without calculations. (One lecture and six hours in drafting room per week. Three hours credit. First semester. Prerequisite, Drawing 1.)

ASSISTANT PROFESSOR \_\_\_\_\_.

**6a.—Kinematics of Mechanisms.**—Continuation of 2, including problems on quick return motion, parallel motion, etc. (Three hours credit. First semester.)

ASSISTANT PROFESSOR \_\_\_\_\_.

**7.—Graphic Statics of Mechanisms.**—A graphic treatment of the forces acting on machine members; study of shapes and sections. (Three hours credit. Second semester.)

ASSISTANT PROFESSOR \_\_\_\_\_.

**8.—Complete Machines.**—Complete design of one machine,

proportioning, calculating, and drawing. (Three hours credit. First semester. Not offered in 1903-04.)

9.—Seminary.—Discussion and study of machinery and problems outside of the regular course. (Twice a week. Second semester. Not offered in 1903-04.)

10a.—Thermo Dynamics.—Mechanical theory of heat and heat engines. (Three hours per week. First semester.)

ASSISTANT PROFESSOR ———.

10b.—Engines and Boilers.—Study of various types of valve gearing, engines, boilers and steam appliances. (Three hours per week. Second semester.)

ASSISTANT PROFESSOR ———.

10c, 10d.—Steam Laboratory.—Tests of injectors, pumps and engines, including test of the University Power Station. (Three hours credit. Throughout the year. Not offered in 1903-04.)

10e.—Steam Laboratory.—Abridgement of 10c, 10d, for electrical engineers. (Two hours. Second semester.)

ASSISTANT PROFESSOR ———.

11.—Steam Engine Design.—Class work supplemented by drafting room practice. (Four hours a week. First semester.)

### MINING ENGINEERING.

PROFESSOR ROBERTS. SPECIAL LECTURES BY HON. FRED RICE ROWELL, R. H. STRETCH AND OTHERS.

The mining and milling methods in use at the present time throughout the western states are studied in detail, and comparisons made between 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 benefit during the junior and senior years from laboratory tests of ores and from a study of textbooks, expert reports and professional papers.

#### SUBJECTS.

1.—General Mining.—Prospecting, shaft-sinking, stoping, timbering, drills, explosives, hoisting, etc., also ventilation,

safety lamps, pumping, lighting, mine book-keeping. (Lectures, M., T., W., F., 11:15. First semester.)

2.—Ore Dressing.—Treatment of ores underground and at surface; crushing, concentration, sampling, coal washing. Required visits to coal and metal mines. (Lectures, M., T., W., F., 11:15. Second semester.)

3.—Mining Law.—A study of the mining laws of the United States and especially those of Washington and Alaska. (Lectures and required reading, once a week. Second semester.)

HON. FRED RICE ROWELL.

4.—Ventilation.—A thorough study of such subjects as the structure of ventilating fans and formulae for their use, safety lamps, systematic accounts to show cost of extraction of an ore-body, systems of coal mining, etc. (Two recitations. First semester.)

5.—Summer Work.—Required of all mining students. Continuous work in a mine, mill or smelter; geological field work, etc.

## METALLURGY.

PROFESSOR ROBERTS.

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

### SUBJECTS.

1.—Fire Assaying.—Testing of reagents, sampling and assaying of ores, furnace and mill products for lead, silver and gold. (First semester.)

2.—General Metallurgy.—The properties of metals and alloys, the uses of various fuels, types of furnaces, and the blast-furnace treatment of ores (except iron.) (Second semester.)

3.—Wet Assaying.—The determination of copper and other metals in ores and furnace products by electrolytic and volumetric methods. (Three afternoons, either semester.)

4.—Metallurgical Analysis.—Analysis of coal, slags, alloys, etc. (Three afternoons, either semester.)

5.—Iron and Steel. (Two lectures a week during second semester. See Chemistry 13, page 134.)

PROFESSOR BYERS.

6.—Gold and Silver.—A detailed study of the processes of extraction, especially cyanidation, chlorination and amalgamation. (Lectures and laboratory work. Three hours credit.)

### PHARMACY.

PROFESSORS BYERS AND FOSTER, ASSISTANT PROFESSORS JOHNSON AND KNIGHT.

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 Pharmacopoeia, 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.

### SUBJECTS.

1, 2.—Pharmacy.—Lectures and laboratory work on the theory and practice of the operations of pharmacy; typical preparations manufactured by the students. Caspari's Pharmacy. (M., Th., F., 8:30. Laboratory, W., F., 1-3; four credits. First semester. Lecture, T., 8:30; laboratory W., 1-4; two credits. Second semester.)

ASSISTANT PROFESSOR JOHNSON.

3, 4.—Pharmacy.—Lectures and laboratory work on more advanced preparations, including theory and practice of extemporaneous pharmacy. (Lectures, T., Th., Float. Laboratory, M., W., 1-3. Throughout the year. Three credits.)

ASSISTANT PROFESSOR JOHNSON.

5.—Pharmacy Law and Urinary Analysis.—At the beginning of the semester ten lectures on law as related to pharmacy will be given to the students of the Senior Class in the School of Pharmacy. Then Urinary analysis will be taken up. The law lectures will be given by Dean Condon. The lectures will then be taken up in Urinary analysis by Assistant Professor Johnson and will be supplemented by three hours of laboratory work. (Law lectures, M., F., 9:25. Laboratory, S., 9-12. First semester. Three credits.)

6.—Toxicology.—Lectures and laboratory work on chemistry, therapeutics and analysis of common poisons. (Lectures, M., F., 9:25. Laboratory, F., 1-3; S., 9-12. Second semester. Four credits.)

ASSISTANT PROFESSOR JOHNSON.

7.—Materia Medica.—Lectures and recitations on inorganic, vegetable and animal drugs with reference to source, physiological and therapeutic action, dose, etc. (M., T., W., F., 11:15. First semester. Credit, four hours.)

ASSISTANT PROFESSOR JOHNSON.

8.—Pharmacognosy and Microscopy.—A course of four lectures, quizzes and demonstrations. The course will take up the analysis of urine and water by means of the microscope, the recognition of the adulterants of powdered drugs and the identification of crude drugs. (M., T., W., F., 11:15. Second semester. Four credits.)

ASSISTANT PROFESSOR JOHNSON.

9.—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 pres-

ent the characteristic features of their respective orders. (Lecture and quiz, W., Th., 9:25. Laboratory, F., 1-4.)

PROFESSOR FOSTER.

10.—Vegetable Histology.—The histology of seeds, leaves, stems, etc. Methods of staining and preparation of slides for study. (Lecture and quiz, W., Th., 9:25. Laboratory, F., 1-4. Three credits.)

PROFESSOR FOSTER.

### PHYSICAL TRAINING.

PROFESSOR VANDER VEER AND MISS WOLD.

Ample preparation has been made to give students the benefit of a full course in physical training. The courses are graded, systematic and progressive. They are intended to remedy common physical defects, to foster a condition of vigorous health, and to give a fair degree of endurance and self-control; but they also seek results more directly educational and disciplinary than these. The whole man is reached through his motor activities and involved in them no less than in purely intellectual efforts, and physical training properly applied makes important contributions to sense and motor training and to the development of physical judgment, presence of mind, self-reliance, courage, and strength of will. Every student is strongly advised to give at least three hours a week to work in this department. Unless excused all students are required to take work in this department during the first two years of their collegiate residence. Of the one hundred and twenty-eight credits required for graduation eight must be earned in this department.

#### SUBJECTS.

1.—Elementary Course.—Two hours. First section., M., W., F., 2:00. Second section, T., Th., 3:00.

PROFESSOR VANDER VEER, MISS WOLD AND ASSISTANTS.

2.—Elementary Course.—Two hours. First section, M., W., F., 2:00. Second section, T., Th., 3:00.

PROFESSOR VANDER VEER, MISS WOLD AND ASSISTANTS.

3.—Advanced Course.—Two hours. M., W., F., 3:00. Open to students who have completed courses 1, 2.

4.—Advanced Course.—Two hours. M., W., F., 3:00.

PROFESSOR VANDER VEER, MISS WOLD AND ASSISTANTS.

A continuation of course 3.

# **THE SCHOOL OF LAW.**

## **THE FACULTY.**

THOMAS FRANKLIN KANE, PH. 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.

## **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.

## **ADMISSION.**

The requirements for admission to the Law School are the same as the requirements for admission to the College of Liberal Arts. (See page 73.) A candidate for admission must present a certificate of graduation from one of the accredited schools of the Uni-



versity or pass satisfactorily an examination in work equivalent to a good four years' high school course.

The requirements for graduation for the senior class of 1903-4 will be the same as announced when they entered their Law School course. A student to graduate from the Law School at the commencement of 1905, besides the examinations in his subjects in law, must have a standing in general scholarship entitling him to rank as a Sophomore in the College of Liberal Arts. A student to graduate with the class of 1906 must have a standing in general scholarship entitling him to rank as a Junior in the College of Liberal Arts.

### **SPECIAL STUDENTS.**

Special students will be admitted to the College of Law under the same conditions as in the College of Liberal Arts. (See page 86.) Persons 18 years of age will be admitted to such courses as they are qualified to follow. If a special student wishes to become a candidate for graduation credits for work done will be allowed the same as though he were in regular standing and the requirements for graduation will be the same as for other students as outlined above.

### **DATE OF REGISTRATION.**

The dates of examinations for entrance and registration for the first semester are announced in the University calendar as Monday and Tuesday, September 21st and 22nd. The examinations on Monday will be on the subjects required for entrance to the Law School,

and on Tuesday the examinations will be on subjects presented by candidates for advanced standing in the Law School.

A candidate may call for an examination in any subject in which he thinks that he has done work that will satisfy the requirements of the Law School.

Candidates for advanced standing are required to be present at the beginning of the year, as the degree will not be conferred on anyone who has not spent at least one full college year in this School of Law.

### FEEES.

The tuition fee in the Law School is twenty dollars a semester, and, as all other fees, is to be paid at the beginning of each semester. A proportionate charge is made for special students who follow single courses.

The graduation fee is five dollars for each student receiving a degree.

### 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 textbooks, 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 textbook 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:

## FIRST YEAR.

	<i>First term. Hours.</i>	<i>Second term. Hours.</i>	<i>Third term. Hours.</i>
Contracts .....	3	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.

	<i>First term. Hours.</i>	<i>Second term. Hours.</i>	<i>Third term. Hours.</i>
Private International Law .....	.....	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	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.

### 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.

### ADMISSION TO THE BAR.

It is provided by an act of the legislature of the State of Washington that the graduates of the Law School of the University shall be admitted without examination and without payment of the usual admission fee of twenty dollars.

**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, pursue one year's course in this school and pass like examinations.

## REGISTER OF STUDENTS FOR 1902-1903.

### GRADUATE STUDENTS.

NAME.	HOME ADDRESS.
Adams, Florence M., A. B., Washington.....	Seattle
Carlson, Frank, A. B., Minnesota .....	Seattle
Fleischer, Amanda F., A. B., Washington.....	Seattle
Garrett, Robert Max, A. B., Idaho.....	Seattle
Gould, James E., Ph. B., Washington.....	Seattle
Greene, Grace E., A. B., Washington.....	Seattle
Hopkins, Paul, A. M., Washington.....	Ballard
Hubert, Anna, A. B., Washington.....	Seattle
Kennedy, Julia E., Ph.B., Chicago.....	Seattle
Lewis, W. Lee, A. B., Stanford.....	Gridly, Cal.
Lough, Thomas W., A. B., Washington .....	Seattle
McDevitt, William, LL. M., Georgetown.....	Chehalis
McDonnell, Emma P., A. B., Washington.....	Seattle
McElreath, Bartie R., A. B., Washington.....	Seattle
Page, George Reed, Jr., A. B., Washington.....	Seattle
Parmelee, Egbert Nelson, B. S., Minnesota.....	Seattle
Simmons, Clyde Barrett, A. B., Southwestern Baptist College .....	Seattle
Waughop, Sarah L., A. B., Washington.....	Seattle
Woodcock, Gertrude Mary, B. L., Minnesota.....	Seattle

### COLLEGE OF LIBERAL ARTS.

#### SENIOR CLASS.

Beatty, Margaret J.....	Custer
Becker, Meta Veldora .....	Seattle
Boetzkes, Harry W.....	Seattle
Bovey, James Elmer .....	Sedro-Woolley
Brintnall, A. Estelle .....	Seattle
Caithness, Jeanne F.....	Everett
Corbet, G. H. J. ....	Seattle



NAME.	HOME ADDRESS.
Crueger, Minnie S.....	Snohomish
Delaney, Alma J.....	Juneau, Alaska
Dodson, Ava Estelle.....	Fairhaven
Duckering, William E.....	Seattle
Erford, J. F. Roy.....	Colfax
Eshelman, Carl D.....	Tacoma
Ewing, Robert L.....	Arcola, Ills.
Giles, Alfred R.....	Seattle
Greene, Mary R.....	Seattle
Hanson, Howard A.....	Seattle
Hunt, Sarah I.....	Whatcom
Knisell, Juanita .....	Seattle
Korstad, Thomas A.....	Seattle
McDonald, Donald D. A.....	Seattle
McDonnell, Elizabeth T.....	Seattle
McKeown, Frank J.....	Mt. Vernon
Miller, Lillian R.....	Seattle
Millican, Alfred C.....	Seattle
Mittelstadt, Agnes P.....	Seattle
Morgan, Jessie Adelle.....	Waitsburg
Oliver, Roland Neil.....	Pendleton, Ore.
Pomeroy, June Rich .....	Cheney
Pratt, Alida Grace.....	Seattle
Rathbun, John Charles.....	Seattle
Reeves, Sarah Caroline.....	Seattle
Sheldon, Althea Morgan.....	Blaine
Stadelmann, Pearlita C.....	Whatcom

## JUNIOR CLASS.

Baptie, Florence V.....	Gathgate, N. D.
Blodgett, Eleanor B.....	Seattle
Bounds, Irwin J.....	North Yakima
Brown, Mabel L.....	Custer
Brown, Mildred .....	Custer
Buland, Mabel E.....	Castle Rock
Burgess, Edith L.....	Seattle

# REGISTER OF STUDENTS.

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NAME.	HOME ADDRESS.
Carpenter, L. Ross.....	Seattle
Coffman, Marion .....	Chehalis
Cook, Jennie .....	Seattle
Crocker, Oma E.....	Seattle
Crouch, Katherine .....	Seattle
Davis, Jessamine E.....	Seattle
Dean, John F.....	Whatcom
Evans, Robert H.....	Blaine
Fallis, Louis D.....	Centralia
Foglesong, William A.....	Centralia
Giles, Gertrude M.....	Seattle
Green, Elmer C.....	Chehalis
Hancock, Elizabeth B.....	Seattle
Hanson, Selma V.....	Enumclaw
Hastings, Frederic W.....	Seattle
Heffner, Bertha L.....	Snohomish
Johanson, Joel M.....	Tacoma
Johnson, Aylett N.....	Whatcom
Lawson, Norman P.....	Seattle
Lindstrom, Ella.....	Council City, Alaska
Ludden, Jessie L.....	Spokane
Mann, Viola .....	Seattle
McIntosh, Vera E.....	Seattle
Mehner, Albert H.....	Buckley
Nakamura, Yoshitaro.....	Tsukahara, Japan
O'Meara, Mary G.....	Seattle
Parker, Isaac Curtiss.....	Seattle
Pearson, Robert G.....	Starbuck
Perry, Helen Jeanette.....	Seattle
Pielow, Myra Stevens.....	Seattle
Randell, George Cecil.....	Seattle
Schmidt, Alexander R.....	Bremerton
Scroggs, Maurice D.....	Eureka, Kansas
Sherrick, Florence L.....	Seattle
Shoudy, Loyal E. A.....	Ellensburg
Slattery, John R.....	Fairhaven

NAME.	HOME ADDRESS.
Smith, Ethan Sylvester .....	Cheney
Smith, Phene Louise.....	Lowell
Speidell, William C.....	Seattle
Taylor, Marvin William.....	Seattle
Terpening, Arthur Roy.....	Seattle
Tucker, Edith Alberta .....	Seattle
Tucker, Lena Lucile .....	Seattle
Wald, Rosa Emma Anna.....	Seattle

## SOPHOMORE CLASS.

Annis, Bessie.....	Spokane
Bird, Joseph V.....	Snohomish
Brinker, William H. ....	Seattle
Brown, Janet Ethel .....	Juneau, Alaska
Burwell, William T., Jr.....	Seattle
Beyer, Hebe G.....	Whatcom
Coon, Alvie R.....	Asotin
Corey, Anna Edith.....	Seattle
Crickmore, Minnie .....	Seattle
Dalby, David Henry .....	Seattle
Douglas, William F. ....	Seattle
Edwards, Katherine L.....	Everett
Fleming, Ferne .....	Spokane
Freyd, Bertha Irene .....	Seattle
Glass, Rosé .....	Seattle
Harrison, Max .....	Seattle
Hill, Ellen K. ....	Seattle
Iffland, Jennie E. ....	Pt. Townsend
Jackson, Henry C. ....	Enterprise
Kirkman, Wilbur D. ....	Spokane
Lacy, Fred B. ....	Walla Walla
Leedam, Charles .....	Seattle
Lindig, Harry J. ....	Juneau, Alaska
Lough, Jacob W. ....	Seattle
Marlow, Mamie G. ....	Spokane

# REGISTER OF STUDENTS.

171.

NAME.	HOME ADDRESS.
McGlinn, Robert E. ....	La Conner
McIntyre, Lucile ....	Seattle
McLean, Walter G. ....	Georgetown
Mitchell, James B. ....	Fairfax
Peterson, Paul Willis ....	Seattle
Reinhart, Anna ....	Olympia
Reynolds, Harley Homer ....	Seattle
Richardson, Karl Asa. ....	Worcester, Mass.
Rogers, Roy Clinton ....	Whatcom
Scatcherd, Eleanor F. ....	Seattle
Shelton, Celia D. ....	Seattle
Strohm, J. Herbert ....	Seattle
Taylor, Frank V. ....	Olympia
Waugh, Rachael Kathleen ....	Mt. Vernon
Webb, Olaf Thomas ....	Lowell
Wetzel, Helen M. ....	Spokane
Wetzel, Louise Adella ....	Spokane

## FRESHMAN CLASS.

Adams, Edith D. ....	Spokane
Akiyama Takashi ....	Seattle
Armstrong, Oattie E. ....	Seattle
Baker, George M. ....	Goldendale
Bash, Cora C. ....	Columbia City
Bell, Mary D. ....	Spokane
Blegert, Hama E. ....	Seattle
Blethen, Marion R. ....	Seattle
Boyd, Mildred M. ....	Sumner
Bragdon, Hazel L. ....	West Seattle
Brown, Margaret B. ....	Everett
Bryan, Clara M. ....	Seattle
Burke, Harold M. ....	Tacoma
Campbell, Louise ....	Seattle
Crahan, May ....	Seattle
Cunningham, Ardys B. ....	Waterville
Dana, Donald, W. ....	Seattle

NAME.	HOME ADDRESS.
Dearle, Percy .....	Snohomish
Dodds, Josiah W.....	Seattle
Donahoe, Thomas M.....	Chehalis
Dootson, James W.....	Everett
Dudley, Florence E.....	Puyallup
Dunlap, Nellie Mae .....	Seattle
Eisenbeis, Lillian K.....	Port Townsend
Fenton, Zilpha B.....	Seattle
Fletcher, James G.....	Seattle
Frazier, Orpha Anne.....	Seattle
Fritz, Jessie F.....	Everett
Frye, Belle H.....	Seattle
Gardiner, Alexander M.....	North Bend
Garrett, Jessamine .....	Seattle
Gullixson, Edna T.....	Seattle
Hall, Charles W.....	Vancouver
Hansen, Agnes .....	Seattle
Harlan, Wilbert B.....	Seattle
Harris, Helen R.....	Seattle
Henry, Isabel L.....	Seattle
Henry, Lauretta C.....	Seattle
Hess, John A.....	Brink, W. Va.
Hill, Fred T., Jr.....	Seattle
Hilton, Merle .....	Seattle
Hinckley, Grace F.....	Seattle
Hoover, Arthur A.....	Seattle
Hubert, Elsie .....	Seattle
Iffland, Frieda A. ....	Port Townsend
Irwin, Robert B.....	Vaughan
Joyce, Mabel A.....	Seattle
Kahan, Sarah E.....	Seattle
Kellogg, Jessie M.....	Seattle
Kingsbury, John A.....	Prosser
Kinley, Charles W. J.....	Seattle
Kinnear, John Roy .....	Seattle
Korstad, Benjamin W.....	Seattle

# REGISTER OF STUDENTS.

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NAME.	HOME ADDRESS.
Korstad, Fred .....	Seattle
Leach, Kenneth M.....	South Bend
Lichty, Roy C.....	Sunnyside
McCallister, Grace E.....	Southpark
McCarney, Margaret L.....	Seattle
McCurdy, Helen R.....	Walla Walla
McEvers, Hugh A.....	Kirkland
McMicken, Maud .....	Seattle
Millett, Gardner W.....	Chehalis
Millican, Frank R.....	Seattle
Millican, Harold A.....	Seattle
Mitchell, Darwin Dubois.....	Seattle
Morrison, Robert A.....	Puyallup
Mowrey, Claudia A.....	Seattle
Myers, Grant Burrows.....	Seattle
Mylroie, Mary Ruth.....	Kent
Nelson, Charles Alfred.....	Mt. Vernon
Nettleton, Jessie B.....	Seattle
Norton, Grace Conoyer.....	Seattle
Norton, Ruth Eleanor.....	Oakland, Minn.
Page, Elvis Belle.....	Olympia
Phelps, Gertrude A.....	Ballard
Powers, Bertha .....	Everett
Purdy, George F.....	Minneapolis, Minn.
Radmaker, Frank .....	Chehalis
Richardson, Hayden J.....	Seattle
Riddell, Harry Starr, Jr.....	Ellensburg
Robinson, Josephine M.....	Juneau, Alaska
Rupp, Rudolph Hinman.....	Walla Walla
Sater, Julia Mollie.....	Seattle
Scheuffer, Lydia L.....	Seattle
Seawell, Viola .....	Seattle
Sheldon, Sarah Meech.....	Seattle
Sigworth, Jay H.....	Utica, Pa.
Smith, Carrie Fitch.....	Seattle
Smith, Frederick A.....	Goldendale

NAME.	HOME ADDRESS.
Stevenson, William D.....	Seattle
Sullivan, Allen Clyde.....	Seattle
Sweet, Lester.....	Blaine
Talbot, Nellie M.....	Seattle
Thompson, Chester Lee.....	Seattle
Thornton, Edith M.....	Seattle
Vaupell, Helen Kate.....	Seattle
Wallace, John Benjamin.....	Centralia
Walsh, Elsa .....	Seattle
White, Carol Blaine.....	Whatcom
Whitfield, Jay Anesly.....	Covington
Willis, Agnes Logan.....	Chehalis
Winkley, Pearl Echo.....	Seattle
Zook, Carl Samuel .....	Seattle

## UNCLASSIFIED STUDENTS.

Adams, David C.....	Ritzville
Allen, Georgia V.....	Cherry Valley
Anderson, Gerabret .....	Ballard
Anthony, Julia E.....	Seattle
Armour, Ellen E.....	Seattle
Atcheson, Henry F.....	Seattle
Barbee, May R.....	Seattle
Barratt, Ruth F.....	Topeka, Kansas
Beach, Bessie K.....	Sioux City, Iowa
Bernhard, Joseph A.....	Seattle
Black, Ida R.....	Seattle
Blackburn, Richard L.....	Fredonia, Kansas
Blethen, Florence A.....	Seattle
Brill, Cassie.....	Seattle
Buchanan, Nina O.....	Seattle
Burgess, Charlotte M.....	Hemichport, Mass.
Carlisle, P. Bascom.....	La Conner
Clarke, Almon A.....	Seattle
Coburn, Virginia L.....	Seattle
Collins, Edward D.....	Kirkland

# REGISTER OF STUDENTS.

175

NAME.	HOME ADDRESS.
Colman, Imogene.....	Seattle
Cooper, Mary B.....	Seattle
Corbet, Lucy E. B.....	Seattle
Covey, Alma B.....	Seattle
Covey, Cora A.....	Seattle
Cowan, Eva Grace .....	Puyallup
Creelman, Ellen .....	Seattle
Davis, Fannie Lela.....	Van Asselt
DeBolt, George W.....	Seattle
DeBolt, Nellie R.....	Seattle
Dennis, Mary Webb.....	Seattle
Dickinson, Albert Paxton.....	Seattle
Dolman, Julia E.....	Seattle
Douglas, Florence G.....	Seattle
Engle, Alicenia B.....	Seattle
Erickson, Edith P.....	Seattle
French, Pearl May.....	Des Moines, Iowa
Garrett, Emma V.....	Seattle
Gibson, Janet R.....	Seattle
Gilkey, Myrtle R.....	Seattle
Graybeal, Claude W.....	Stehekin
Grunbaum, Lee .....	Seattle
Gustafson, Frederick C.....	Rock Island, Ills.
Haberer, Emanuel J.....	Seattle
Hakes, Rae DeM.....	Seattle
Hall, June M.....	Seattle
Hallock, Edna .....	Seattle
Hanna, Ina M.....	Seattle
Haynes, Sarah I.....	Seattle
Hicks, Ethel D.....	Seattle
Houlahan, Kathleen Eva.....	Seattle
Houlahan, Mary A.....	Seattle
Howard, Annie.....	Henderson, Ky.
Hughes, Ingram .....	Palouse
Iguchi, Sel .....	Ohayama, Japan
Jacobson, Etta .....	Seattle



NAME.	HOME ADDRESS.
Johnson, Benjamin W.....	Seattle
Johnston, Cavie Ann.....	Seattle
Kane, Anna B.....	Seattle
Kenealy, Margaret M.....	Seattle
Kenyon, Jessie L.....	Seattle
Kineth, Maude E.....	Coupeville
Kline, Belle M.....	Ballard
Kuhnke, Maud .....	Seattle
Lambert, Cecil L.....	Kirkland
Lee, Edna M.....	Seattle
Lindsay, Brent A.....	Wenatchee
Littlefield, Edgar E.....	Seattle
Longeway, Dora E.....	Dunham
Lowe, Gertrude .....	Seattle
Mahlow, Rose J.....	Duluth, Minn.
Mayer, Anna B.....	Baltimore, Md.
McCarthy, William G.....	Seattle
McConnel, Mary E.....	Seattle
McKinstry, Mason R.....	Seattle
Meredith, Elida B.....	Seattle
Meredith, Ida M.....	Seattle
Michelson, Edith S.....	Seattle
Mills, Henrietta E.....	Seattle
Mitchell, Melville A.....	Newcastle
Montanye, Isabella.....	Seattle
Montgomery, Anna .....	Seattle
Moore, Eva Belle.....	Seattle
Morris, Martha Jane.....	Seattle
Murray, Susan Wells.....	Seattle
Nelle, Richard George.....	Seattle
Ozasa, Saburo.....	Seattle
Pearson, Joseph Upham.....	Starbuck
Pierce, Dorothy Potter.....	Seattle
Pollock, Adelaide Lowry.....	Seattle
Radford, Ethel S.....	Seattle
Ray, Dora Belle.....	Van Asselt

## REGISTER OF STUDENTS.

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NAME.	HOME ADDRESS.
Ray, Selah Emily .....	Seattle
Reeves, DeGaris .....	Derby
Rosenberg, Anna M. ....	Seattle
Samples, Maude E. ....	Seattle
Sawyer, Nettie Alice. ....	Seattle
Scholl, George Warren. ....	Fairhaven
Sheafe, Ralph Jordan. ....	Seattle
Sherman, Clyde .....	South Park
Sherman, Hermie .....	South Park
Shimosi, Henry. ....	Yamaguchi, Japan
Sieler, George .....	Odessa
Sinclair, Anna M. ....	Whatcom
Stephenson, Cecilia B. ....	South Seattle
Stewart, Caroline L. ....	North Yakima
Strang, Hattie A. ....	Seattle
Stratton, Eleanor. ....	Cripple Creek, Colo.
Streator, Gertrude I. ....	Davenport
Strudwick, Fred Nash. ....	Seattle
Stuff, Josephine E. ....	Seattle
Tanner, Harry Harris. ....	Seattle
Tilton, Charles Sumner. ....	Seattle
Tomesaburo, Shimizu .....	Tokyo, Japan
Tonomura, Sekirio .....	Seattle
Tracy, Roger Sherman .....	Tacoma
Trumbull, Anna E. ....	Cresco, Iowa
Van Dyke, John F. ....	Centralia
Van Eman, Ethel. ....	Augusta, Mont.
Von Ahlhausen, George. ....	Stehekin
Waite, Mary Alberta. ....	Seattle
Ward, Jessie Belle. ....	Seattle
Watkins, Mattie S. ....	Spokane
Wells, Allen Carlton. ....	Mt. Vernon
Wells, Max Daniel. ....	Seattle
Wheeler, Amy Delora. ....	Seattle
Wheldon, Lillian .....	Seattle
Wimmler, Norman Lucius .....	Seattle

NAME.	HOME ADDRESS.
Wong, Joseph S.....	Swatow, China
Woodcock, Harold A.....	E. Oakland, Cal.
Woodin, Scott Percy.....	Georgetown
Woody, Ozro Henry.....	Ballard
Wright, Emma S.....	Tacoma

## COLLEGE OF ENGINEERING.

## SENIOR CLASS.

Harris, Charles W.....	C. E.	Boisfort
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## JUNIOR CLASS.

Dunbar, Glendower .....	E. E.	Seattle
Frisbee, Leroy W.....	E. E.	Ellensburg
Lantz, Clinton .....	E. E.	Centralia
Van Kuran, Karl E. ....	E. E.	Seattle

## SOPHOMORE CLASS.

Allfree, Barney K.....	E. E.	Whatcom
Cooper, Addie .....	C. E.	Junction
Hill, William R.....	C. E.	Seattle
Kuniyasu, Uichi .....	E. E.	Japan
McElmon, Fred .....	C. E.	Whatcom
McFarland, Kenneth C.....	C. E.	Sumner
Thedinga, Henry Herman....	E. E.	Seattle

## FRESHMAN CLASS.

Banks, Lyman P.....	C. E.	Seattle
Bennett, Manchi O.....	C. E.	Ellensburg
Botten, Henry H.....	E. E.	Seattle
Brooks, Edward M.....	E. E.	Seattle
Carle, Arthur B.....	M. E.	Seattle
Cordes, Henry G.....	E. E.	Spokane
Dam, Oscar W.....	E. E.	North Yakima
Dodson, Harley A.....	E. E.	Fairhaven
Fowler, Frank H.....	E. E.	Fairhaven

# REGISTER OF STUDENTS.

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NAME.	HOME ADDRESS.
German, William M.....	E. E..... Fairhaven
Gibson, John .....	C. E..... Seattle
Gloster, Richard I.....	C. E..... Whatcom
Hamlin, Milton .....	M. E..... Seattle
Hopkins, Thomas A.....	C. E..... Ballard
Jungst, David H.....	E. E..... North Yakima
King, John Russell.....	E. E..... Seattle
McCrary, Thomas G.....	C. E..... Ballard
Moss, Herbert Clinton .....	E. E..... Seattle
Oertli, Victor Henry.....	C. E..... Whatcom
Stead, Arthur John.....	C. E..... Seattle
Tabor, Justin Garfield.....	C. E..... Fairhaven
Tibbals, Morris Lowman....	C. E..... Port Townsend
Trout, Frank Vernon.....	C. E..... Garfield
Walker, Raymond D.....	E. E..... Tacoma
Whittlesey, Walter B.....	E. E..... Seattle
Wilkinson, Bernard W.....	E. E..... North Yakima

## UNCLASSIFIED STUDENTS.

Alexander, Edward D.....	C. E..... Seattle
Brady, William J.....	C. E..... Seattle
Cole, Clarence M.....	M. E..... Clear Lake
Dietz, William .....	E. E..... North Yakima
Fell, John B. ....	C. E. .... Seattle
Masters, Donald S.....	C. E..... Sumner
Peterson, Henry Edward.....	E. E..... Seattle
Potts, George Henry.....	C. E..... Seattle
Tholstrup, Ines T.....	E. E..... Seattle
Tozeland, James Albert.....	C. E. .... Skagit City
Wagner, Walter Calvin.....	E. E..... Seattle
Wolfe, Clarence Clavin.....	E. E..... Seattle

## SCHOOL OF MINES.

### JUNIOR CLASS.

Hastings, Albert C.....	Seattle
Miles, William L.....	Seattle

NAME.	HOME ADDRESS.
Reasoner, Frank Merrill.....	Whatcom
Richardson, Samuel H.....	Seattle
Teats, Roscoe .....	Tacoma
Waller, John Frank.....	New Westminster, B. C.

## SOPHOMORE CLASS.

Atkinson, Wallace L.....	Philadelphia, Pa.
Clark, Miles E.....	Seattle
Coleman, John .....	Chehalis
Dunlap, J. William P.....	Seattle
Franklin, William Curry.....	Vancouver
Hassell, William R.....	Seattle
Hill, Benjamin B.....	Seattle
Hubert, Karl .....	Seattle
Livingstone, Gilbert T.....	Seattle
Martin, Horace F.....	Seattle
McDonald, Donald F.....	Seattle
Peterson, Roy Julian.....	Seattle
Richardson, Fred H.....	Seattle
Stenger, Edward L.....	Whatcom
Treen, Shirley M.....	Seattle
Ziebarth, Herbert W.....	Seattle

## FRESHMAN CLASS.

Bateman, Ralph L.....	Vancouver
Brawley, Lee J.....	Seattle
Burch, Warren B.....	St. Paul, Minn.
Camehl, Jesse A.....	Seattle
Cline, Roland L. H.....	Puyallup
Covey, Leo W.....	Seattle
Fowler, Herman M.....	Centralia
Gaches, Harry W.....	La Conner
Gartner, Wilhelm A.....	Port Townsend
Hull, John S.....	Seattle
Laube, Fred E.....	Whatcom

# REGISTER OF STUDENTS.

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NAME.	HOME ADDRESS.
Moore, Chester A.....	Chehalis
Van Dorn, Ralph N.....	Seattle
Wayland, Russell Gibson.....	Seattle
Wells, Clyde Emerick.....	Seattle
Wernecke, Livingstone .....	Seattle
Williams, David John .....	Tacoma
Williams, Ralph E.....	Seattle
Winsor, Horace G.....	Seattle

## UNCLASSIFIED STUDENTS.

Bethel, Sylvester .....	Olympia
Brown, James DeK.....	Seattle
Brown, Robert A.....	Seattle
Burtis, Cole C.....	Seattle
Cameron, R. Clyde.....	Seattle
Christopher, Arthur L.....	Monte Cristo
Davick, Lauritz E.....	Seattle
Denton, Arthur P.....	Seattle
Fenwick, George S.....	Seattle
Ferguson, John B.....	Georgetown
Fischer, Arthur H.....	Seattle
Graven, John A.....	Dawson, Y. T.
Green, Harold C.....	Seattle
Hanson, Carl .....	Seattle
Hughes, Joanna C.....	Seattle
Hunt, John M.....	Seattle
Johannson, Daniel .....	Sweden
Kuentzel, George F.....	Fairfax
Lilligren, Martin J.....	Index
Link, Claude A.....	Auburn, Ind.
McCarty, William W.....	Sumner
McDonald, Hugh L.....	Seattle
Newton, Claude George.....	Seattle
Polson, William L.....	La Conner
Taylor, John Gilbert.....	Seattle
West, Harry Walter.....	Seattle

## SCHOOL OF PHARMACY.

## SECOND YEAR.

NAME.	HOME ADDRESS.
Cox, Cecil B.....	Whatcóm
Ellis, DeWitt D. ....	Seattle
Fowler, Alexander .....	Port Angeles
Horner, Charles R.....	Torrence, Kan.
Johannsson, Bjarni O.....	Akra, N. D.
McFadden, Claude H.....	Seattle
Thomas, John Steven.....	South Seattle
Urquhart, James T.....	The Dalles, Or.

## FIRST YEAR.

Brewer, Nettie G.....	Satsop
Cooper, Ashley R.....	Waterville
Hagy, Myrtle M.....	Chard
Hagy, Robert P.....	Seattle
Jorgensen, Anna M.....	Kent
Knapp, Edward V.....	S. Aberdeen
Lieser, Herbert C.....	Vancouver
Lieser, Miles V.....	Vancouver
Mason, Arthur R.....	Port Angeles
Mitchell, Sumner .....	Chelan
Morrow, Troy Austin.....	Bonner's Ferry, Idaho
Parrish, Edward E.....	Chelan
Power, William Bernard.....	Seattle
Sanford, Harold Arthur.....	West Seattle
Scherer, Louis D.....	Chehalis
Strauss, Alfred Adolph.....	Colville
Stull, Blanche .....	Seattle
Walter, George Ernest.....	Seattle
Warner, Leonard Monroe.....	Goldendale
Wilt, Frank T.....	Edmonds
Witte, Robert H.....	Hoquiam
Wood, Fred Willow.....	Berkeley, Cal.

## REGISTER OF STUDENTS.

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## UNCLASSIFIED.

NAME.	HOME ADDRESS.
Mesdag, Tom.....	West Seattle

## SCHOOL OF LAW,

## SENIOR CLASS.

Adams, John O.....	Ritzville
Anderson, Oliver .....	Georgetown
Benjamin, Rial .....	Seattle
Biddel, W. B. ....	Perry, Iowa
Bixby, Frank W. ....	Kalispell, Mont.
Body, Marshall V. ....	Iowa City, Iowa
Brewer, Merton E. ....	Walla Walla
Brickey, Willard L.....	Avon
Burrows, Charles F. ....	Seattle
Crary, Jay D. ....	Sheffield, Pa.
Douglas, James H. ....	Grafton, N. D.
Dykeman, King .....	Seattle
Egan, Francis M. ....	Seattle
McAvoy, Charles E. ....	Seattle
Miller, Sinclair .....	Seattle
Narvestadt, Anton C. ....	Seattle
Osborne, Walter S. ....	Seattle
Parker, Adella M. ....	Seattle
Paull, Walter F. ....	Seattle
Philbrick, Edgar A. ....	Hoquiam
Porter, Marcellus F. ....	Telluride, Colo.
Revelle, Thomas P. ....	Seattle
Revelle, William Roger .....	Seattle
Sherfey, John A. ....	Colfax
Shcrrrett, Judson W. ....	Erling, Iowa
Sigrist, Charles Ferdinand.....	Congress, O.
Snyder, Fred Orton .....	Clyde, O.
Tennant, George Ross .....	Seattle
Thompson, Wallace H. ....	Pt. Townsend



NAME	HOME ADDRESS.
Walthew, John R. ....	Seattle
Ward, Nathan L. ....	Goldendale
Wardall, Max ....	Topeka, Kan.
Wardall, Raymond M. ....	Topeka, Kan.
Watkins, Walter H. ....	Spangle
White, R. C. ....	Sheffield, Pa.

## JUNIOR CLASS.

Adams, Wayne W. ....	Hatton
Aylmore, Reeves ....	Seattle
Baldwin, Vesta M. ....	Seattle
Bonner, H. A. M. ....	Bolton, Ontario
Boyce, Ernest P. ....	Seattle
Brinker, Robert H. ....	Seattle
Brown, Elizabeth ....	Seattle
Casey, Thomas J. ....	W. Superior, Wis.
Devecmon, George W. ....	Seattle
Elliott, John J. ....	Andes, N. Y.
Glass, Stephen A. ....	Seattle
Griffin, Joseph H. ....	Bismarck
Guernsey, Samuel D. ....	Bloomfield, Iowa
Hanson, Howard A. ....	Seattle
Johnston, William T. ....	Saltsburg, Pa.
Kuen, Harry J. ....	Seattle
Laube, William Tell, A. B. ....	Whatcom
McCall, Charles B. ....	Bonner's Ferry, Idaho
McGeel, Eugene H. ....	Hot Springs
Medlin, Wenzel A. ....	Columbus, O.
Nesbitt, David M. ....	Bellaire, O.
Packer, Ray ....	Whatcom
Phillips, William W. ....	Bremerton
Pierce, Ralph S. ....	Seattle
Raine, Edgar C. ....	Bellevue
Rawlings, Harold Carol ....	Bloomfield, Iowa
Reichenbach, Elmer ....	Seattle

# REGISTER OF STUDENTS.

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NAME.	HOME ADDRESS.
Roberts, Charles V. ....	Eberton
Scott, Charles A. ....	Seattle
Scott, Thomas F. ....	Seattle
Tucker, Orville A. ....	Seattle
Turner, Homer E. ....	Seattle
Waldron, Fred John ....	Williston, N. D.
Walthew, Harry Mason ....	Seattle
Way, Walter ....	Seattle
Whitehead, Reah ....	Seattle

## \*PREPARATORY SCHOOL.

Aiken, Wilfred M. ....	Chandlersville, O.
Allen, Eva D. ....	Seattle
Anderson, Alice J. ....	Seattle
Anderson, L. Bliss ....	Seattle
Armstrong, Fred A. ....	San de Fuca
Bangs, Walter G. ....	Seattle
Best, William C. ....	Ballard
Brackett, George G. ....	Skagway, Alaska
Brook, John P. ....	Olena, Ills.
Cales, Tony F. ....	Bucoda
Corson, Eva May ....	Issaquah
Dana, Lee H. ....	Seattle
Eastlick, Mary Edna ....	Issaquah
Fleming, Andrew J. ....	Spokane
Ford, Guy N. ....	Arlington
Gibson, Albert E. ....	Issaquah
Horton, Howard D. ....	Georgetown
Jabush, Leo ....	South Park
Karr, Arthur T. ....	Hoquiam
Kittredge, Frank A. ....	Glyndon, Minn.
Longfellow, Charles R. ....	W. Seattle
Pullen, Daniel Dee ....	Skagway, Alaska
Reeves, Ella Newell ....	Columbia City

\*Abolished June, 1903.

NAME.	HOME ADDRESS.
Roberts, Braden .....	Kalama
Sherrick, Arthur D. ....	Seattle
Simpson, Bessie Alice .....	Kalama
Sinclair, Mark .....	Ritzville
Sutherland, Catherine B. ....	Seattle
Sutherland, John Henry .....	Seattle
Thompson, Edward B. ....	Seattle

## SUMMARY OF ENROLLMENT.

Graduate Students .....	19
College of Liberal Arts .....	363
College of Engineering .....	50
School of Mines .....	67
School of Pharmacy .....	31
School of Law .....	71
Preparatory School .....	30
Total.....	<u>631</u>

# THE ALUMNI ASSOCIATION.

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## OFFICERS FOR THE YEAR 1902-1903.

*President*.....RALPH DAY NICHOLS, PH. B., 1896  
*Vice President*.....OTHILLA GERTRUDE CARROLL, LL. B., 1901  
*Secretary* ..... CHARLES A. RUDDY, A. B., 1901  
*Treasurer* .....CAROLINE E. HORTON, A. B., A. M., 1899  
*Historian* ..... ADELLA M. PARKER, A. B., 1893

## EXECUTIVE BOARD.

MARION EDWARDS, A. B., 1898, *Chairman*.

GEORGE A. COLEMAN, B. S., 1882.

RALPH DAY NICHOLS, PH. B., 1896.

## COMMITTEE ON STUDENT AFFAIRS.

HARRY CANBY COFFMAN, A. B., 1899, *Chairman*.

HENRY LINDLEY REESE, A. B., 1899.

MARTIN HARRAIS, PH. B., 1897

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## ALUMNI.

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### COLLEGE OF LIBERAL ARTS.

1876.

Clara (McCarthy) Wilt, B.S. Edmonds, Wash.

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. Seattle.

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 Bigelow, A. B., A. M., Pastor of the Elliot 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.

## 1888.

Morris E. Adams, B. S., (died June 8, 1890.)

Charles A. Kinnear, B. S., attorney at law, 809 Queen Anne Ave., Seattle.

Ida (Söule) 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 Wenatchee Canal Company, Wenatchee, Washington.

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, Washington.

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, Washington.

## 1893.

Winnifred (Ewing) Johnson, A. B., B. P., 1328 First Ave., Seattle.

Grace Gatch, A. B., Corvallis, Oregon.

Beatrice A. (Karr) McNeill, A. B., B. P., Aberdeen, Washington.

Adele M. Parker, A. B., Instructor in Civics and Political Economy, Seattle High School, 1025 Seneca St., 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, Washington.

Helen May (Anthony) Corey, B. S., Ph. G., Northport, Washington.

Merrit Ernest Durham, B. S., Principal of Schools, Bothell, Washington.

Mettie (Heaton) Durham, B. S., Bothell, Washington.

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, Washington.

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 (Parsons) Williams, A. B., San Francisco,  
Cal.

Earl Robinson Jenner, A. B., with Booth-Wnittlesey 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, Uni-  
versity 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.

Bartle Reginald McElreath, teacher, Principal of Schools,  
South Seattle.

Martha Wiley, B. P., Tacoma, Washington.

Kate Skannon Williams, B. P., teacher, Walla Walla, Wash-  
ington.

1896.

Tom Marie Alderson, A. B., attorney at law, Seattle, Wash-  
ington.

George Merritt Allen, A. B., editor of Klondike Nugget,  
Dawson, N. W. T.

William Henry Beatty, A. B., attorney at law, Haller Bldg.,  
Seattle, Washington.

Frederick Richie Bechdolt, A. B., Butte, Mont.

Albert Seldon Burrows, A. B., Bellevue, Washington.

Harry Farmer Giles, A. B., A. M., Principal of the High  
School, Ballard, Washington, 706 Kilbourne Ave., Fremont.



Lydia Ezma Lovering, A. B., teacher, 403 E. Lynn St., Seattle.

John Chisholm Dickson, B. S., Superintendent of Schools, Ballard, Washington.

John Hoegh Graff, B. S. (died June 15, 1903.)

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 Eli 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., Assistant Professor of Mathematics, 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), Instructor in Mathematics, University of Oregon, Eugene.

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, Washington.

Mary Rathbun Button, A. B., Instructor in Latin, Seattle High School, Seattle.

Edward Adolph Cruieger, B. S., Superintendent of Schools, Mt. Vernon, Washington.

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, Washington.

William Hay Karr, B. S., farmer, Hoquiam, Washington.

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., Principal of School, Seattle, Washington.

Thomas Floyd Murphine, Ph. B., farmer, Stanwood, Washington.

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) Sutton, Ph. B., Seattle.

Charles Wood Sutton, B. S., engineer, United States Geodetic Survey, Yuma, Cal.

Helen Pack Wilson, Ph. B., 920 Queen Anne Ave., Seattle.

Heartie (Wood) Carle, A. B., New York City, N. Y.

1899.

Jessie B. Allen, A. B., A. M., fellow, University of Chicago, Chicago, Ill.

Arthur C. Ballard, A. B., teacher, Klickitat Academy, Goldendale, Washington

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, Washington.

Harry C. Coffman, A. B., Librarian, University of Washington, Seattle.

Ross E. Chestnut, A. B., mining broker, New York Blk., Seattle.

Jackson B. Corbet, Jr., A. B., journalist, Dawson, N. W. T.

Arthur C. Crookall, A. B., M. D., Arcade Bldg., Seattle.

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, Washington.

Frank P. Giles, A. B., druggist, Ninth Ave. and Jackson St., Seattle, Washington.

Jacob L. Gottstein, A. B., with M. & K. Gottstein, wholesalers, 103 W. Yesler way, Seattle, Washington.

Walter S. Griswold, A. B., student, Medical School, Northwestern University, Chicago, Ill.

Thomas M. Gunn, A. M., draughtsman, City Engineer's Office, Seattle.

Henry R. Harriman, A. B., LL. B., attorney at law, New York 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, Washington.

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, Seattle.

Elizabeth Metcalf, A. B., teacher, Seattle.

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., Seattle.

Annie A. Sloan, A. B., teacher in South Park, Wash. Sixth Ave., near Marion St., Seattle.

Permillia (Thomas) Alderson, A. B., Seattle.

Lucius O. Vesper, A. B., graduate student, Cornell University, Ithaca, N. Y.

Mable (Ward) Penington, A. B., 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) Coffman, A. B., University Station, 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., Physician, Good Samaritan Hospital, Portland, Ore.

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, N. Y.

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.

Nathanial 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., U. S. Geological Survey, Alaska.

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 High School, Hoquiam, 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., Associate Professor of English, University of Washington, Seattle.

Anne Mitchell, A. B., teacher, Olympia, Wash.

Thomas W. Mitchell, A. B., Assistant Professor of Economics, University of Iowa, Iowa City, Iowa.

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., Civil Engineer, City Hall, 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.

Ottillie 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., La Conner, Wash.

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., Reporter, Post-Intelligencer, University Station, Seattle.

Mattie R. Leavitt, A. B., Molalla, Ore.

Luther Le Sourd, A. B., Seattle.

Charles A. Lindbery, A. B., Whatcom, Wash.

Charles McCann, A. B., attorney at law, Seattle.

Clarence McDonald, A. B., Superintendent of Schools, Gu-  
bat, P. I.

Daniel A. Millett, A. B., assistant bank cashier, Ellensburg,  
Wash.

George R. Page, A. B., graduate student, 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., 527 Pontius Ave., Seattle.

Charles A. Ruddy, A. B., Assistant, State Geological Sur-  
vey, University Station, Seattle.

May Thompson, A. B., Seattle.

Glen H. Trout, A. B., Seattle.

Arthur C. Vail, A. B., Pastor of the Christian Church, North  
Yakima, Wash.

Edgar J. Wright, A. B., Seattle.

#### 1902.

G. Walcott Ames, A. B., draughtsman with Moran Bros.,  
Seattle.

Arthur W. Barton, Ph. G., A. B., Instructor of Science,  
High School, Waterville, Wash.

Charla A. H. Blodgett, A. B., Instructor in Spanish, University of Washington, Seattle. *Home*

Ruby Lincoln Brown, A. B., Instructor in Latin, High School, Everett, Wash.

Fred J. Ceis, A. B., Seattle, Wash.

Fred D. Chestnut, A. B., Seattle, Wash.

Howard G. Cosgrove, A. B., student in law, Pomeroy, Wash.

Walter V. Cotchett, A. B., Lieutenant, United States Army, Fort Lawton, Seattle. *(extra ordinem)*

Otta B. Crueger, A. B., Teacher of Latin, High School, Mt. Vernon, Wash.

Edward A. Duffy, A. B., graduate student, Cornell University, Ithaca, N. Y.

Amanda F. Fleischer, A. B., graduate student, University of Washington, Seattle, Wash.

Alice E. Gardiner, A. B., Instructor in English, High School, Everett, Wash.

Grace E. Greene, A. B., graduate student, University of Washington, Seattle.

Urbane S. Griggs, A. B., (died 1903).

Albert C. Hastings, A. B., student, School of Mines, University of Washington, Seattle.

Richard W. Huntoon, A. B., student, Business College, Seattle, Wash.

Henry G. Knight, A. B., Assistant in Chemistry, University of Chicago, Chicago.

Charles Landes, A. B., Instructor in Science, High School, Fairhaven, Wash.

William T. Laube, A. B., student, Law School, University of Washington, Seattle.

Oscar R. Main, A. B., with Kilbourne-Clarke Electric Company, Seattle, Wash.

E. Pearl McDonnell, A. B., Assistant Librarian, University of Washington, Seattle.

J. Garfield McGlinn, A. B., accountant at State Penitentiary, Walla Walla, Wash.



Garfield A. Minkler, A. B., lumber manufacturer, Lyman, Wash.

Alice M. Porter, A. B., teacher, Seattle, Wash.

Ruth R. (Pratt) Doubt, A. B., Chicago, Ill.

Alton W. Remington, A. B., student, College of Dentistry, Portland, Oregon.

Edna Eugenia Robertson, A. B., teacher, Olympia, Wash.

Mabel Shepard, A. B., teacher, Seattle, Wash.

Blanche L. Winsor, A. B., Seattle, Wash.

William W. Woody, A. B., Winlock, 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) Mathlewson, 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. Christopher, 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., 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, 1025 Seneca St., 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 Summer School, Puyallup.

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, University Station, Seattle.

1896.

Lois Medora Adams, Seattle.

Albert Selden Burrows, A. B., 1896, 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.

Mary Agnes (Skinner) Sutton, 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. Ifland, A. B., teacher, High School, Port Townsend, Wash.

Eunice V. Karr, A. B., student, New England Conservatory of Music, Boston.

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, Seattle.

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., 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., Seattle.

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.

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.

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 High School, Hoquiam, Wash.

Ella E. Lewis, teacher, 415 East Denny Way, Seattle.

William J. Meredith, A. B., Associate Professor of English, University of Washington, Seattle.

Winifred H. Megrath, teacher, Sedro-Woolley, Wash.

Alice M. Porter, teacher, Seattle.

Francis C. Sylvester, A. B., teacher, Aberdeen, Wash.

Bella Weretnikove, A. B., LL. B., attorney at law, 1900 Minor Ave., Seattle.

Ella B. White, A. B., Assistant Principal, High School, Fairhaven.

## 1901.

Ottillie 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.

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, 1152 Broadway, Seattle.

Mattie R. Leavitt, A. B., Molalla, Oregon.

Luther Le Sourd, A. B., University Station, Seattle.

William P. Littlefield, clerk, Louch, Augustine & Company, First Avenue, Seattle.

E.-Pearl McDonnell, A. B., cataloguer in Library, University of Washington, Seattle.

Ella F. Meagher, County Superintendent of Schools, Coupsville, Wash.

Male E. Meagher, teacher, Clinton, Island County, Wash.

Sophie D. Peterson, teacher, Port Townsend, Wash.

Arthur C. Vall, A. B., Pastor of the Christian Church, North Yakima, Wash.

Linnie W. Wiley, teacher, Ballard, Wash.

1902.

Urbane S. Griggs, A. B., (died 1903).

Amanda Frances Fleischer, A. B., graduate student, University of Washington, Seattle.

Minerva E. Heppenstall, teacher, Seattle.

Charles Landes, A. B., Instructor in Science, High School, Fairhaven, Wash.

Edna Eugenia Robertson, A. B., teacher, Olympia, Wash.

Mabel Shepard, A. B., teacher, Seattle.

#### COLLEGE OF ENGINEERING.

1901.

Stirling B. Hill, B. S., (in Civil Engineering), draughtsman, Water Supply System, Port Townsend, Wash.

1902.

S. Parker Rowell, A. B., B. S., Assistant in Electrical Works, British Columbia.

Glen H. Trout, A. B., B. S., Draughtsman, Phoenix Bridge Company, Phoenixville, Penn.

#### 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.

## 1902.

Climie E. Hill, B. S., United States Geological Survey, Alaska.

Lewis D. Ryan, B. S., Sumner, Wash.

## SCHOOL OF LAW.

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, Arcade Bldg., Seattle.

Vivian M. Carkeek, LL. B., attorney at law, Arcade Bldg.

Othilia G. Carroll, LL. B., 1432 Sixteenth Ave., Seattle.

Eugene A. Childe, LL. B., attorney at law, Arcade Bldg., Seattle.

James T. Cowles, LL. B., U. S. Commission, Circle City, Alaska.

William Dwyer, LL. B., attorney at law, Shelton, Wash.

Frank A. Groundwater, LL. B., Port Gamble, Wash.

Henry R. Harriman, A. B., LL. B., attorney at law, New York 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 Bldg., Seattle.



Sidney J. Williams, LL. B., City Attorney, Renton, Wash.,  
408 Burke Bldg., Seattle.

1902.

William M. Austin, LL. B., attorney at law, Manila, P. I.

William T. Elwell, LL. B., attorney at law, Snohomish, Wash.

Frank Hayek, LL. B., Portland, Oregon.

John C. Higgins, A. B., LL. B., attorney at law, New York  
Blk., Seattle, Wash.

Leon B. Kenworthy, A. B., LL. B., attorney at law, Dayton,  
Wash.

Aubrey Levy, A. B., LL. B., attorney at law, Seattle, Wash.

Grace E. Mitchell, LL. B., 414 Boylston Ave., Seattle, Wash.

Clive A. Pettijohn, LL. B., attorney at law, Grand Forks,  
B. C.

John B. Shorett, LL. B., attorney at law, Boston Blk.,  
Seattle, Wash.

Takuji Yamashita, LL. B., Seattle, Wash.

#### 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), Seattle.

Virginia Mackay Elder, Ph. G., druggist, Houghton, Wash.

Charles Sumner Leas, Ph. G., Honolulu, T. H.

Thomas Warner Lough, Ph. G., Assistant Professor of Chem-  
istry and Pharmacy, University of Washington, Seattle.

James Miller McMurtry, Ph. G., photographer, Port Town-  
send, Wash.

Harry Lowther Richardson, Ph. G., A. B., 1899, student, Con-  
servatory of Music, Ithaca, N. Y.

August Christian Rosenveltdt, 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., physician, Portland, Ore.

1901.

Glenn R. Fetterman, Ph. G., druggist, Fremont Station, Seattle.

Charles McLean 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.

1902.

Bert A. Benedict, Ph. G.

Ida M. Boatman, Ph. G.

Hayden S. Cameron, Ph. G.

Charles M. Gray, Ph. G.

Henry C. Hansen, Ph. G.

Sarah Kellogg, Ph. G.

Martin J. Lacey, Ph. G., with Copeland Medical Institute, Seattle, Wash.

Walter A. Lutz, Ph. G.

Charles M. McKinnon, Ph. G.

George R. Page, Jr., A. B., Ph. G., graduate student, University of Washington, Seattle.

George D. Prigmore, Ph. G., druggist, Pe Ell, Wash.

William H. Vercoe, Ph. G., Mt. Vernon, Wash.

Melvin A. Weed, Ph. G.

#### BUSINESS GRADUATES.

1880.

W. John Colkett, Assistant Postmaster, Seattle.

1881.

David E. Bigelow, mining engineer, Manager of Lake View Consols, Limited, Boulder, Western Australia.

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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