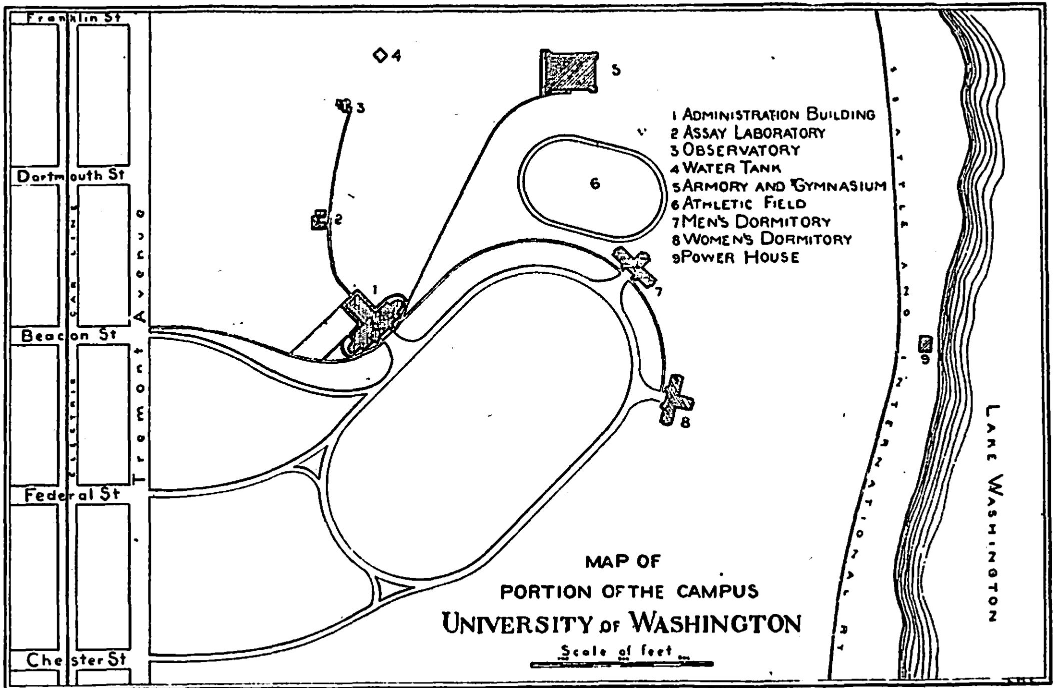
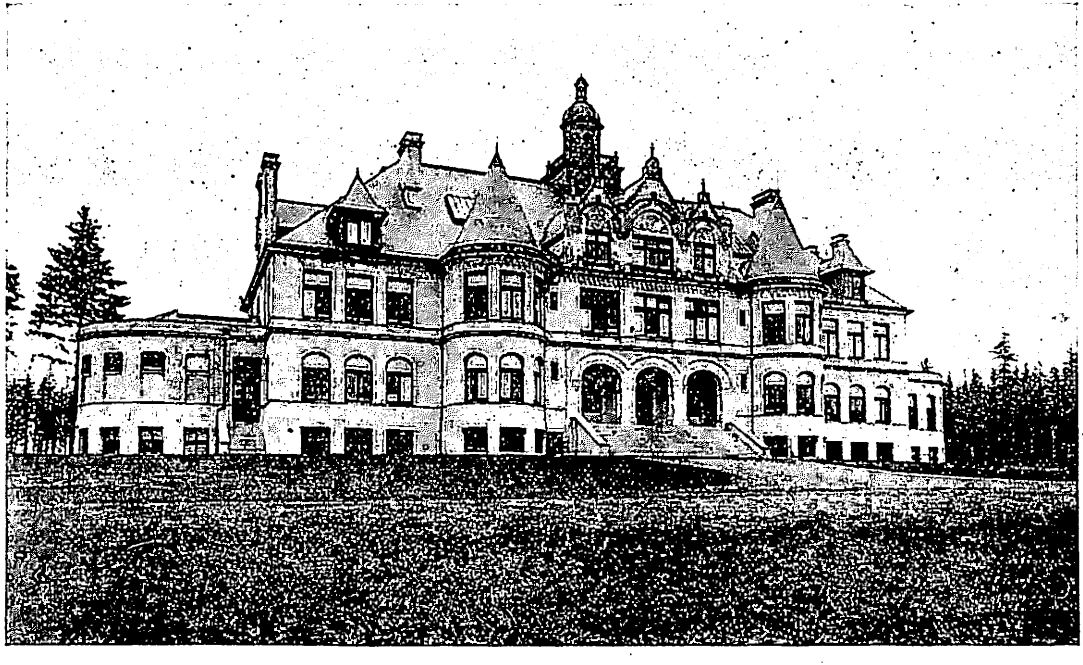
1894-1900


MAP OF
PORTION OF THE CAMPUS
UNIVERSITY OF WASHINGTON
Scale of feet
1 ADMINISTRATION BUILDING
2 ASSAY LABORATORY
3 OBSERVATORY
4 WATER TANK
5 ARMORY AND GYMNASIUM
6 ATHLETIC FIELD
7 MEN'S DORMITORY
8 WOMEN'S DORMITORY
9 POWER HOUSE
Franklin St
Dartmouth St
Beacon St
Federal St
Chester St
Tremont Avenue
LAKE WASHINGTON



FRONT VIEW OF ADMINISTRATION BUILDING.

CATALOGUE FOR 1899-1900

AND

ANNOUNCEMENTS FOR 1900-1901

OF THE

UNIVERSITY OF WASHINGTON.

SEATTLE, WASHINGTON.

OLYMPIA, WASH.:
GWIN HICKS, . . . STATE PRINTER
1900.

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GENERAL CALENDAR.

1900-1901.

1900.

August.

S.	M.	T.	W.	T.	F.	S.
....	....	....	1	2	3	4
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September.

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October.

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November.

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December.

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1901.

January.

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February.

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March.

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April.

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May.

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19	20	21	22	23	24	25
26	27	28	29	30	31	....

UNIVERSITY CALENDAR FOR 1900-1901.

1900.

FALL TERM.

Examinations for Admission begin..Monday, Sept. 10.

(Between 8:40 A.M. and 12:30 P. M. on Monday and Tuesday will be held all examinations in the departments of sciences, mathematics, and drawing. Between 1 and 5 P.M. of the same days will be held all examinations in the departments of languages, English, history, and political science.)

Registration Day.....Tuesday, Sept. 11.
Recitations begin.....Wednesday, Sept. 12.
Term ends.....12:30 P. M., Wednesday, [Nov. 28

WINTER TERM.

Term begins.....8:40 A. M., Monday, Dec. 3.
Christmas Vacation begins.....12:30 P. M., Friday, Dec. 21.

1901.

Christmas Vacation ends.....8:40 A. M., Wednesday, Jan. 2
Washington's Birthday.....Friday, Feb. 22.
Term ends.....4 P.M., Wednesday, Feb. 27.

SPRING TERM.

Term begins.....8:40 A. M., Monday, March 4
Baccalaureate Sermon.....11 A. M., Sunday, May 26.
Examinations for Admission begin..Monday, May 27.
Alumni Day.....Tuesday, May 28.
Class Day.....Wednesday, May 29.
Commencement.....10:30 A. M., Thursday, May 30

HENRY LINDLEY REESE,
Tutor in Greek and Latin.

A. B., University of Washington, 1899. Tutor in Greek and Latin, 1899–.

622 Spring Street, Seattle.

DAVID KELLY,
Tutor in Physics.

B. S., University of Washington, 1899–. Tutor in Physics, 1899–.

2315 Fifth Avenue, Seattle.

THOMAS WARNER MITCHELL,
Tutor in Mathematics.

A. B., University of Washington, 1900–. Tutor in Mathematics, 1900–.

Men's Hall.

JAMES MORAN,*
University Engineer.

Master Mechanic, Seattle Consolidated Street Railway Company, 1889-94; Machinist, James Street Constructing Company, 1894-95; General Inspector of Electrical Equipment, Oakland Consolidated Street Railway, 1896-97; Engineer and Assistant in Electrical Engineering, University of Washington, 1897-1900.

Brooklyn Addition.

HENRY KNIGHT,
Assistant in Chemistry.

Men's Hall.

CHARLES RUDDY,
Assistant in Geology.

Latona.

Special lecturers are given under the faculties of the various colleges.

*Term expires May 1, 1900.

ORGANIZATION OF THE FACULTY.

Chairman, ... FRANK P. GRAVES.
Vice-Chairman, ... CHARLES F. REEVES.
Secretary, ... ARTHUR R. PRIEST.
Treasurer, ... CLARK DAVIS.

STANDING COMMITTEES OF THE FACULTY.

Admission.—Professors Foster, Bechdolt, and Colegrove.

Accredited High Schools.—Professors Coffey, Fuller, and Meany.

Class Officers.—College of Liberal Arts: Freshmen, Dean Reeves; Sophomores, Professor Priest; Unclassified, Professor Landes; Juniors, Seniors, and Graduates, the respective Major Professors. College of Engineering: Civil and Mechanical Engineers, Professor Fuller; Electrical, Professor Doubt. School of Mines: Professor Lyon. School of Pedagogy: Professor Coffey. School of Pharmacy: Professor Byers. School of Law: Dean Condon.

Program.—Professors Reeves, Smith, and Fuller.

Student Assistance.—Professors Meany and Coffey, and Mr. Davis.

Discipline.—Professors Doubt, Ranum, and Hansee.

Petitions.—Professors Smith, Byers, and Kane.

Holidays.—Professors Bechdolt, Colegrove, and Lyon.

Athletics.—Professors Vander Veer, Landes, and Priest.

Military Exercises.—The Commandant, and Professors Reeves and Kincaid.

Student Organizations and Publications.—Professors Bechdolt, Priest, and Hansee.

Domitories.—Professors Fuller, Lyon, and Kane.

Library.—Mr. Coffman, and Professors Doubt and Ober.

Museum.—Professors Starks, Landes, and Kincaid.

Catalogue.—Professors Priest, Meany, and Kane.

GENERAL INFORMATION.

HISTORICAL SKETCH.

When the first legislature of Washington Territory assembled in 1854, Isaac Ingalls Stevens, the governor, spoke most forcibly in his initial 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 just 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 re-located the Territorial University at Seattle. A board of University commissioners, consisting of Rev. Daniel Bagley, John Webster, and Edmund Carr, all of Seattle, was immediately appointed to select the granted lands, to sell them for not less than $1.50 an acre, and to build the University within one year.

This board met on Washington's birthday, 1861, and organized for work. The land was cleared, the corner-stone of the main building 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 re-locating 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

meagre, 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; no one of the first six presidents having held office for more than two years.

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

The total number of graduates up to June, 1899, was 224. 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 about 5,000.

The building erected in 1861 was the finest educational structure at the time in the Pacific Northwest. It was the only building belonging to the institution except the president's cottage and two rather inferior dormitories. All were frame buildings. The money for their construction was obtained from the sale of the University lands. The territorial government paid out no money for the University's maintenance until 1879. Then the amount given was very small and was to apply on tuition fees of "free" scholars to be appointed by the governor, judges, and members of the legislature. This condition prevailed in all

the appropriation bills for the University throughout the territorial period. During this time, from 1862 to 1889, the total sum appropriated by the territory for the University was only $34,350.

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

The new site comprises 355 acres of land between Lakes Union and Washington. The grounds have a water frontage on both lakes and command a beautiful prospect. They are adorned by a natural growth of forest trees, except where they have been removed to make way for buildings, campus, and athletic field. This new site is about four miles from the centre of Seattle, and can be reached by rail, street-car, road, or water.

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

SEAT OF THE UNIVERSITY.

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

The city of Seattle is the metropolis of the State of Washington, and has a population now estimated at 80,000. 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 simply 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 year 1899 was about the same as that of the city of Chicago. The highest temperature reached in 1899 was 90 degrees on July 26th, and the lowest was 12 degrees on February 3rd. A sure indication of the healthfulness of the Puget Sound climate is a low death rate. In Seattle during the past year the rate was less than eight in one thousand.

Numerous lines of railroad, steamships, and sailing vessels furnish abundant facilities for transportation to and from the city, while within the city there are 100 miles of

*The statistics used here are from reports of the Chamber of Commerce, the United States Weather Bureau, and other reliable sources.

electric and cable street car lines. There are six public parks in the city, and four private parks open to the public. The Magnolia Bluff Army Post, covering a tract of 650 acres of upland and 200 acres of tide land, also affords a beautiful public park.

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

Students in the departments of geology, mineralogy, and mining engineering find especial advantage in and about Seattle. There are numerous coal mines and stone quarries near the city, and gold and silver mines easy of access in the Cascade mountains. One smelter in Everett, and another in Tacoma may be easily visited, and the United States government has established an assay office in Seattle, which in volume of business is second only 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 large system now completed at Snoqualmie Falls. The large iron works, saw mills, clay works, and numerous other manufacturing enterprises will furnish useful object lessons to students of mechanical engineering. The United States government dry-dock and naval station 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 whose books are available for students of the University. The management

of the public library seeks every means possible to supplement the library of the University.

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 1899 twenty buildings were occupied by the public schools, two hundred and fourteen teachers were employed and 9,597 pupils enrolled. The foundations are being laid for a magnificent high school building, to cost, when completed, $200,000. Superintendent Frank J. Barnard has offered to make his best schools available as a training auxiliary for the students of the University who are preparing for the profession of teaching. This offer is based on the plan now in practice by the public schools in the vicinity of Harvard and other old universities.

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 ensures 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 remain 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 be-

quests, 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 Regents adopted a wise policy by deciding that each structure should be made of materials found in the State of Washington. In this way, besides serving their various purposes, the buildings furnish magnificent exhibits of the wealth of Washington in first class building materials.

The Administration Building is constructed of a light colored sandstone from Pierce county, and cream colored pressed brick from Spokane county, with terra cotta 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. Extending to the rear, and separated by light wells, is a wing 91 feet in length by 54 feet in width. In this wing is Denny Hall, the general assembly room, above which is the library. The basement in the main part of the building is devoted to laboratories. These are all well lighted and equipped for work. In the basement of the wing is the museum, which is the full size of Denny Hall, and is provided with ample cases for the growing collections. The building is heated and ventilated by the latest improved facilities, and is lighted by gas and electricity. Though the scientific departments are becoming greatly crowded, the administration building is sufficient to supply the needs of from 600 to 800 students in the other branches of work. It occupies the most commanding situation on the grounds.

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

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

The Gymnasium and Drill Hall is a frame building constructed of Puget Sound fir. The whole building is 165 feet long and 120 feet wide. The drill hall portion con-

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

The Power House is a brick structure 42 by 80 feet on the shore of Lake Washington, and close to the tracks of the Seattle and International Railway Company. This situation provides adequate supply of water and fuel. There is installed here a new two phase electric generator for supplying light to the different buildings. The current is generated at 1100 volts, and it may be transformed for light, be used for power, or for experimental purposes in the electrical engineering laboratory. With this and the 500 volt direct current that is generated at the power house, the engineering students have available electric currents for numerous practical purposes. Besides these dynamos there are two engines, two pumps, and three boilers installed in the power house.

Two Dormitories, one for women and the other for men, were amply provided for at the legislative session of 1899. A competition of plans, inaugurated by the Board of Regents, was entered by the best architects of the state. 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.

A resident steward, and his wife, the matron, have charge of the women's dormitory building. The Dean of Women also resides in this dormitory.

The Law Building is situated on the old site of the University near the business center of the city. It was formerly the administration building of the University, and was erected in 1862. At that time it was the finest educational structure in the Pacific Northwest. It is a commodious building and more conveniently located for law students than any building on the new site.

GROUNDS AND ARBORETUM.

The new grounds are ample enough to satisfy every need of the University. There are 355 acres, all within the city limits of Seattle. The site, as already stated, 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.

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

The Board of Regents has adopted a plan that will not

only give the best arrangement for new buildings, but will largely determine all future improvement of the grounds. This plan is a modification of the usual college quadrangle. In this case it will be an ellipse, whose major axis is 1,200 feet, and whose minor axis is 650 feet long.

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

One of the main reasons urged for the dedication of this land to University purposes, was that in addition to all other needs of the institution, there could be established here a scientific arboretum for the cultivation, care, and study of all kinds of trees and plants that will thrive in this climate. There are now on the grounds large groves of the original forest trees, and many of them are being preserved. Many others have been planted and are now thriving. The management of the Seattle city parks, realizing that a beautiful University campus means another fine park for the city, has done its full share towards beautifying the grounds.

On Arbor Day, 1898, the park department presented the University with fifty assorted oaks and fifty honey locusts. These were planted, and not one of them perished. During 1899 the park department presented to the University 2200

fine trees, embracing about thirty species new to the grounds. These were all carefully planted in groves at suitable places on the grounds. They are all thriving. At this rate of progress it will be but a few years before the University will have an arboretum as fine as any possessed by colleges and universities anywhere in the world. The educational value of such an arboretum is quite apparent to anyone who comprehends the progress being made in the sciences of botany and forestry.

LIBRARY.

On May 1, 1898, the library of the University of Washington had 7,636 bound volumes and 7,861 pamphlets. One year later the library had 10,360 bound volumes and 10,000 pamphlets, and on March 1, 1900, there were 11,380 bound volumes and 12,000 pamphlets. Besides this, there are now 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 three 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 library possesses a card catalogue, and is arranged according to the Dewey decimal system. The library occupies a room 91 feet long and 54 feet wide, and the students are allowed free access to the shelves. Stu-

dents of the University also have all the privileges of the Seattle Public Library, which has now over 20,000 bound volumes and several thousand pamphlets.

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 cooperate. The Columbia Historical Society, with headquarters in the University, has been organized to collect, preserve, and publish records of the pioneers.

DENNY HALL.

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.

THE SMALL AUDITORIUM.

On the first floor of the administration building is a room fitted with raised seats arranged after the manner of clinic lecture rooms. The seats are tablet arm chairs of the latest design and are about one hundred in number. For special lectures and for large classes this room has been found to be of admirable service. It is especially suited to the needs of such meetings as those of the Chemical Journal Club, class associations, and other student organizations.

MUSEUM.

The University Museum is destined to become one of the most important adjuncts of the institution. The legislature of 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. At present the museum occupies a room 54 by 91 feet, well lighted, and fitted with 300 feet of upright cases and 142 feet of wall cases, besides three large table cases and two glass partitioned rooms for the exhibition of groups of larger animals. The specimens thus far accumulated represent a good beginning along the lines of geology, mineralogy, zoology, botany, and ethnology.

During the past year many additions have been made to the museum. The most notable is "The John R. Baker Collection of Minerals," which has been deposited indefinitely. It consists of over a thousand specimens of rare and beautiful forms of crystallization and other forms of minerals from different parts of the world, and occupies the three large tables in the centre of the museum.

A collection of more than a hundred mounted fishes, together with smaller collections of star fishes, shells, and corals, have been presented by Professor Edwin C. Starks. The Field Columbian Museum has contributed a collection of beautiful corals. Mr. P. B. Randolph has placed in the museum a collection of about ten thousand specimens of land and water shells, embracing a large number of species. This collection is rich in local forms and represents exchanges made by Mr. Randolph with all parts of the world.

A collection of fossils and archæological specimens has been donated by Dr. S. Winfield Hartt, of Port Angeles. The archæological collection is largely from southwestern United States. The fossils are from Pennsylvania, south to Georgia, and are representative of the Silurian, Devonian, and Carboniferous systems.

The ethnological section has been enriched by one of the totem poles collected by the Harriman Alaska Expedition.

Other miscellaneous articles have been added, and the collections bid fair soon to crowd their present exhibition room to its full capacity. It is the aim to make the museum especially rich in the natural history specimens of this state. This is an excellent field, for there is not another section of the Union whose natural history is so little known as that of the Northwest.

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 such apparatus and chemicals as are needed for individual work.

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

Laboratory D is directly across the hall, accommodates twenty-one students, and is devoted to qualitative analysis. A large "hood" extends across one end of the room and removes all fumes and obnoxious gases.

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

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

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

Physical and Electrical.

The laboratories set apart for the use of the department consist of—(1) a general laboratory 30 x 70 feet, which is provided with 120 feet of wall tables and five brick piers with marble caps, apparatus, cases, sinks, gas taps, and electric connections; (2) a work shop 25 x 30 feet; and (3) a photometer room 7 x 28 feet.

The dynamos, motors, electric machines, boilers, engines and pumps at the power house, while necessary for the proper maintenance of the institution, have also been selected with regard to their usefulness as educational adjuncts to the laboratories.

The laboratories are supplied with the most modern apparatus from American and European makers. Among the important pieces of apparatus may be mentioned—(1) an Atwood's machine with friction wheels and magnetic trip, Bertram's apparatus for the law of machines, two fine balances with suitable sets of weights, a centrifugal machine with numerous attachments, a Bianchi's air pump with accessories, a seconds mercury compensated pendulum clock with electrical connections to Morse sounder and chronograph, two standard barometers, a cathetometer, and a mercury air pump; (2) a Helmholtz double siren, two large electrically vibrated tuning forks with mirrors for producing Lissajous' curves, a set of organ pipes, a set of tuning forks, revolving mirror, and burners for studying sound by means of manometric flames; (3) Melloni's apparatus complete with thermopile, a Le Chatelier electric pyrometer, three standard thermometers, Hoffman's vapor density apparatus complete, Victor Myers' vapor density apparatus, apparatus for the determination of the ex-

pansion of metals, Beckman's apparatus; (4) a spectrogoniometer, a polarimeter, a refractometer, a direct vision spectroscope with attachments, a Fresnel's optical bench with accessories for studying interference, diffraction etc., a Lummer-Brodhun photometer with standard Amyl-acetate lamp, two spectrometers, a fine compound microscope with eyepiece and stage micrometers, a projection lantern with microscope, polariscope, and vertical attachment complete, reading telescopes, curved mirrors, etc.; (5) two 10,000 ohm standard resistance boxes, three Wheatstone bridges, a Kohlrausch bridge, postoffice box pattern, Thomson high resistance galvanometer, Hartman and Braun's apparatus for measuring electrolytic resistance a Kohlrausch variometer, a standard microfarad condenser, a Thomson-Mascart electrometer, two fine D'Arsonval galvanometers, absolute tangent galvanometer, a fine set of Crookes' tubes, a Wimshurst influence machine, two induction coils, some Geissler, Pluecker, and X Ray tubes, a storage battery of 25 cells with a normal discharge rate of fifteen amperes, two ammeters, two voltmeters, a standard Carhart-Clark cell, an absolute condenser, a Westinghouse motor and generator. In addition to these, there is a generator at the power house with Whitney ammeter and voltmeter, and two General Electric Company motors in the fan-rooms, which may be used for experimental purposes.

The work shop contains an iron lathe, a scroll saw with wood-turning attachments, a tool grinder, a crystal cutting and polishing machine, a forge, two work benches with iron and wood working tools. Students are encouraged to construct accessory apparatus. The dark room is supplied

with water, gas, and electricity, and is fitted with a large slate sink so that it is excellent for photographic work.

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

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

The general laboratory is supplied with a number of standard reference works, among which may be mentioned Wenkelmann's Handbuch, Viole's Cours de Physique, Wullner's Experimental Physik, Grey's Absolute Measurements in Electricity and Magnetism. A number of the more prominent periodicals in physics are supplied and are constantly on file, such as Philosophical Magazine, Physical Review, Astro-physical Journal, Wiedemann's Annalen und Beiblætter, Journal de Physique, Nature, Science, London Electrician, and Electrical World and Engines.

Biological.

The biological laboratories are located in the north end of the building, one on the first floor and one in the basement room below. The commendable feature of these rooms for laboratory work is a circular front in which are placed eighteen large windows, giving an abundance of light. The laboratory on the first floor has also a ten-foot skylight placed in a dome-shaped roof.

Before each window is placed a maple topped table specially designed for biological work and provided with accommodations for four students. The tops of these tables

taper, to allow an equal distribution of light and also to conform to the circular form of the rooms, the broad ends being placed against the wall in front of each window. Each laboratory will therefore seat comfortably seventy-two students at one time.

In the center of each laboratory stands a lead-lined aquarium with fixtures for maintaining sixteen small aquaria for the propagation and study of living forms.

The laboratory supplies at present include thirty-seven compound microscopes with one-sixth and two-third inch objectives; ten dissecting microscopes with double lenses (Bausch and Lomb, series W). Several microscopes are provided with the Abbe condenser, the Abbe camera lucida, $\frac{1}{12}$ oil immersion lenses, polarizing apparatus, and micrometer eye-pieces and scales. Naples water bath, Minot's microtomes, incubator, stains, reagents, embedding material, and the glassware neeessary for the study of microscopy, are provided for individual use. One of the best Zeiss microscopes is also provided for special use, 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.

Convenient dark rooms are provided for work in microphotography and lantern-slide making. Instruction in this line of work will be given to students who are prepared to take it.

Students in the more elementary courses have the constant supervision of the instructors in charge, while every facility within the means at command will be provided for those capable of doing work in research. The laboratory cases are rapidly being filled with marine animals from

Puget Sound and fresh water forms from the neighboring lakes, about one hundred species of the group *vermes* alone being collected during the summer of 1895.

The herbarium at present consists of specimens representing about 3,000 genera, with species peculiar to this coast, in addition to others obtained by exchange from the east. This, together with the museum, furnishes facilities for the study of classification and comparative work. A collection of insects consisting of about 40,000 specimens has been made. This furnishes an excellent means for the study of entomology, containing, as it does, many species not described before and forms peculiar to the Pacific coast, and including a number of Alaskan forms.

A good working library is provided in connection with the laboratories, in addition to the general library of the University. New books and pamphlets are being added to this library as fast as possible, together with periodicals and the current biological literature.

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.

Mineralogical and Petrographical.

This laboratory occupies one of the large basement rooms, and has accommodations for twenty-four students. It contains three tables with tile tops and with fixtures for gas; two cabinets filled with minerals for descriptive work in mineralogy; one cabinet of lithological and palæontological specimens; one cabinet of ores, arranged for use in the study of economic geology; one cabinet containing a good collection of natural crystals and wood models for the

study of crystallography; one cabinet filled with the proper chemicals and reagents for use in blowpipe analysis; and two racks to hold the blowpipe outfits, which are provided for all students.

For work in petrography there is provided a Bausch and Lomb petrographical microscope, and a lathe fitted with a diamond saw and grinding plate, run by an electric motor.

The laboratory is open at all times, and students are permitted to work whenever they please, a minimum number of hours being stated for every course. By this arrangement it is found that students perform more hours of work a week than when they are debarred from the laboratory, except at certain periods. The laboratory specimens are always at the command of the students, and in this way much is learned by constant observation and association.

In the University museum, which is very near the laboratory, there are several choice collections of minerals, rocks, coals, ores of iron and the precious metals, and these specimens are freely drawn upon in the courses in mineralogy and petrography.

Assaying.

The assaying laboratory is now well equipped for that work. The furnace room will accommodate about eighteen students, and is provided with a large coal muffle furnace, built upon the same plan as those in use at the Puget Sound Reduction Company's assaying laboratories, Hoskin's gasoline crucible and muffle furnaces, Caulkins' combination gasoline and muffle furnaces, and wind furnaces for coke and charcoal. The student in this way becomes familiar with the use of different fuels. This is of advantage, as in some parts of the country one kind of fuel must be

used, while in another part another is found more desirable. A Brown cupel machine has also been added.

Connected with this laboratory are the weighing rooms with pulp and assay balances, and these are in turn connected with a well lighted and well ventilated laboratory for the wet analyses of ores and the performing of various tests. Each desk in this laboratory is supplied with water and gas, and is amply equipped in every way for the work undertaken.

EQUIPMENT FOR CIVIL ENGINEERING.

The instrumental equipment for surveying is complete for all plane and topographic work. It consists of one Heller & Brightly complete engineer's transit, with stadia; one Gurley light mountain transit with solar attachment and Jones' patent latitude arc; one Gurley railroad compass; one 20-inch Gurley wye level; one Buff & Berger inverting dumpey level; one Gurley plane table with alidade containing stadia wires; sextant; hand levels; chain; 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 room for drawing is 24 x 55 feet and well lighted. It contains first-class drawing desks, lock drawers, stools, cabinet, and models. Drawing boards are furnished to all students.

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

OBSERVATORY.

The University observatory is a substantial stone structure built in 1895. It consists of a dome for the equatorial telescope, fifteen feet in diameter, with running gear for rotary motion, manufactured by Warner & Swasey; a library and computing room, a transit room, a clock room, a closet for photography, etc.

The present equipment consists of an equatorial telescope of six inch clear aperture, 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 and Swasey.

GYMNASIUM AND ARMORY.

The gymnasium is 40 x 80 feet, well lighted and ventilated, and equipped with all the necessary apparatus. There is a dressing room on each side, one for men and one for women, each provided with booths and lockers, a fee of fifty cents being charged for the latter. Connected with each dressing room are four shower baths, with hot and cold water.

The drill hall is 80 x 120 feet. From it open the commandant's office and three company rooms. The latter are

furnished with rifle-racks, desks, etc. Rifles, swords, belts, ammunition, targets, and other supplies are furnished by the War Department of the United States.

STUDENT ASSOCIATIONS.

The Student Assembly 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. The president of the assembly appoints the standing committees on intercollegiate debate, student publications, and University emblems, and such other committees as are from time to time ordered by the assembly. The executive body of the Student Assembly is the Representative Council, consisting of the President of the University, *ex-officio*, and ten students selected by vote from the several classes. Through the council the faculty and students are kept in close touch with each other.

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

The Oratorical Association is an organization of students for the cultivation of interest in oratory. This association annually sends representatives to intercollegiate and interstate contests in oratory, and has already achieved no small amount of success in the field it has sought to develop.

The King County Bar Association in the spring of 1896 offered a cash prize of $100 to be competed for at the University of Washington by members of certain institutions of learning of the highest grade in Washington, Oregon,

and Idaho. Since then the offer has been limited to the University of Washington, and open to all students irrespective of classes. 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 Stevens and Badger Debating Clubs are organizations for the improvement of their members in the art of debate. That frequent practice may be afforded, the membership in these clubs is confined to twenty men students. Meetings are held once a week, and announcements of the subjects for debate and of other information are made on the bulletin boards of the clubs. One or more inter-society debates are held each year, and from the contestants are largely chosen the University representatives for the intercollegiate debates.

The Women's Debating Club was organized for the same purposes as the Stevens and Badger, but its membership is limited to twenty women students. The meetings are held once a week. At each meeting a critic is appointed by the president of the club.

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

The Literary Culture Club is open to all women of the University. Meetings are held every two weeks. The programs consist of talks and papers on the writers of the day, interspersed with musical numbers. The aim of the club is to make its members familiar with contemporary

authors and bring about social relations among the young women of the University.

The Culture Club aims to make its members familiar with the uses of good society and with everything that makes for womanly character. The club is open to all the women of the University. It holds its meetings every two weeks in the Ladies' Hall, and is presided over by the Dean of Women.

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 Electrical Engineering Society is an association composed of students in electrical engineering, for the study of technical literature and for promoting a knowledge of the applications of electricity.

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

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

The English Club is an association in which the professors of English literature and rhetoric supervise the reading and discussion of the English classics. The meetings are held at the residences of the professors on Saturday evenings.

The W. T. Harris Club, organized January 29, 1900, is composed of teachers and students in the department of pedagogy of the University. 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 regular meetings are held on the first and third Mondays of each month.

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. A successful presentation of "Everybody's Friend" was given April 20, 1900.

The University Orchestra was organized in 1898 under the directorship of Mr. E. Talburt of Seattle, instructor in violin. It has been doing excellent work. This organization is of great assistance, as it furnishes music for the usual programs during the University year. Other mu-

sical associations of the University include a male quartette, and a glee and mandolin club. The glee and mandolin clubs made a tour of the northern part of the state May 8–12, 1900.

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 year, 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 is now planning to establish a regular reading room and headquarters in the men's dormitory.

The Athletic Association is an organization of the men students having for its aim the encouragement of all healthful and legitimate sports. Besides the usual officers the association elects a general athletic manager, an advisory committee, consisting of three members of the faculty; and a committee on emblem awards, consisting of the executive committee, the advisory committee, and three alumni. The executive committee consists of the president, vice president, and a member appointed by the president.

The Women's Athletic Association has for its object the encouragement of physical culture among the women students. It controls athletic meets, basket-ball games, and other contests.

The Tennis Club is an organization among the young men of the faculty and students who are interested in the game. The club controls a very good cinder court on the campus, where the ordinary playing as well as the periodical

tournaments are held. The membership is at present limited to twelve.

Of the national Greek letter fraternities, Sigma Nu alone has established a chapter in the University. There are, however, two local organizations, Delta Phi and Gamma Sigma, among the young men. Both of these expect to secure charters from national societies in the very near future. Likewise, there are two local organizations of young women, Alpha and Alpha Kappa Gamma, seeking membership in national sororities.

EXPENSES OF STUDENTS.

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

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

The fees charged in the laboratories simply cover the cost of materials used by the students. These charges are specified under the general subject of Laboratory Fees.

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

The two dormitories, one for men and one for women, decrease materially the cost of living for students. Board is furnished at cost, which averages about $12 a month. 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 are always a large number of students who prefer to obtain homes with private families. There are many opportunities for this, and the Registrar is always ready to give information and assistance to students seeking such places. In the past the expense of board and lodging with private families has ranged from $15 to $25 a month.

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

LABORATORY FEES.

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

Chemical.—At the beginning of each term all students are required to make a deposit of three dollars before being assigned to a desk in any of the chemical laboratories. From the deposits of students in preparatory subjects and subjects I, II, and III, one dollar is deducted each term to defray the actual cost of chemicals, and from the remainder breakage at the actual cost of apparatus and glassware. In all the higher subjects the amounts deducted vary according to the materials that are consumed.

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

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

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

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 this amount, he is expected to pay the difference.

Pharmacy.—All students in pharmacy are expected to make a deposit with the Registrar of three dollars a term, in addition to all other fees. From this deposit one dollar is deducted to pay for drugs used, and the remainder, less breakage and the actual cost of apparatus, is returned.

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, suspension, and when incorrigible, expulsion.

MANAGEMENT OF DORMITORIES.

The Board of Regents has placed the dormitories in charge of the President of the University, who is responsible to the Regents for their management. Subject to the President's orders are a steward, who has charge of the dining-room, and a matron, who attends to the general housekeeping. The aim of the Regents in managing the dormitories is to give the students wholesome food and a good home at cost. The student committee is held responsible for the maintenance of order in the Men's Hall, and in the Ladies' Hall general supervision is exercised by Professor Hansee, Dean of the Women.

ADDRESSES AT ASSEMBLY.

Addresses by distinguished scholars and men of affairs are frequently given before the student body in Denny Hall. By this means the work of the class-room is supplemented and the students obtain a broader outlook upon life through the light of practical experience.

During the first term of the year 1899–1900, addresses were delivered in the auditorium on Friday of each week, as follows:

September 15.—"The Functions of Government." Hon. J. S. Crosby."

September 23.—"No Such Thing as Fail." Rev. W. D. Simonds.

September 29.—"University Spirit." President Frank P. Graves.

October 6.—"Effects of the Will." Rev. Louis F. Bowerman.

October 13.—"Debating Societies and Oratorical Contests." Professor Arthur R. Priest.

October 20.—"The Energy of the Republic." Mrs. Mary H. Hunt.

November 10.—"Belgium's Position Among Nations." President Frank P. Graves.

November 17.—"Law as a Science." Hon. Thos. P. Fiske.

November 24.—"Elements of Success." Rt. Rev. Edward J. O'Dea, Bishop of Nisqually.

During the second and third terms addresses were given daily, as follows:

December 5, 6, and 7.—"Lessons from European Travel." Professor Frederick W. Colegrove.

December 11, 12, 13, and 14.—"Political Evolution in the South." Professor Arthur R. Priest.

December 18, 19, 20, and 21.—"The Passion Play at Oberammergau." Professor Charles F. Reeves.

January 3, 4, and 5.—"Student Ethics." Professor Adolph F. Bechdolt.

January 8, 9, 10, and 11.—"Some Elements of Success in Public Speaking." Professor Alex. B. Coffey.

January 15, 16, 17, and 18.—"Some Lessons from Life." Professor Edmond S. Meany.

January 22, 23, 24, and 25.—"England in the Eighteenth Century." Professor J. Allen Smith.

January 29.—"Music and the Arts."

January 30.—"The Planet Eros." Professor Arthur Ranum.

January 31.—"The Queen City." Rev. A. B. Haugan.

February 1.—"Free Thinking in Educational Matters." Rev. J. P. D. Llywd.

February 5, 6, 7, and 8.—"Life in Eastern Universities." Professor Almon H. Fuller.

February 12, 13, 14, and 15.—"The American Association for the Advancement of Science." Professor Thomas E. Doubt.

February 19, 20, 21, and 22.—"German University Life." Professor Carl R. Moench.

March 5, 6, 7, and 8.—"Botanical Physiology and Parasites." Professor Homer R. Foster.

March 12, 13, and 14.—"South Carolina and Her People." Professor Horace G. Byers.

March 19 and 20.—"Hoosiers." Professor Henry Landes.

March 26 and 27.—"The Keystone State." Professor Adolph F. Bechdolt.

March 29.—"Practical Psychology." Principal W. B. Turner of the State Normal School at Cheney.

April 2 and 3.—"Homer and His Works." Professor Martha L. Hansee.

April 9, 10, 11, and 12.—"The Pribiloff Islands." Professor Trevor C. D. Kincaid.

April 16.—"The Bible as Literature." Rev. H. H. Gowen.

April 17, 18, and 19.—"Spanish Element in New Mexican Life." Professor Dorsey A. Lyon.

April 23, 24, 25, and 26.—"Influence." Rev. Clark Davis.

Throughout the year the University Orchestra gave a concert in the Auditorium at each Friday assembly.

A lecture, "Coal Mining in Washington," was given in

the Department of Mining Engineering by Mr. James Kelley.

"The Plane-table" and "Photographic Methods in Topography" were lectures given in the Department of Civil Engineering by Captain J. F. Pratt of the Coast Geodetic Survey.

UNIVERSITY EXTENSION.

Members of the University faculty have held themselves ready to respond to all calls for University extension lectures. During the past year they have given more than one hundred and fifty single lectures throughout the Northwest before teachers' institutes, high schools, and various societies, clubs, and assemblies. There have also been two more extended courses of such lectures this year.

One of these courses was at Port Townsend for the benefit of the public library of that city. The course consisted of twelve lectures, as follows:

1. November 18.—"The Dynamics of a Purpose." A. B. Coffey.
2. November 25.—"The Geology of Washington." Henry Landes.
3. December 2.—"The Fur Seal." Trevor C. D. Kincaid.
4. December 9.—"Voyages of Discovery along our Coast." E. S. Meany.
5. December 16.—"Life History of an Insect." Trevor C. D. Kincaid.
6. December 30.—"Life and Work of Isaac I. Stevens." E. S. Meany.
7. January 6.—"Duties and Responsibilities of Citizenship." J. Allen Smith.
8. January 13.—"Schiller." Charles F. Reeves.
9. January 20.—"Remnants." A. F. Bechdolt.
10. January 27.—"Heredity." H. R. Foster.

11. February 3. — "The Beauty of the Heavens." Arthur Ranum.
12. February 10.—"Charles Dickens." Frank P. Graves.

The other course formed a part of the evening instruction course offered by the Seattle Young Men's Christian Association. The lectures were as follows:

1. October 18.—"The Geology of Washington." Henry Landes.
2. November 3.—"The Duties and Responsibilities of Citizenship." J. Allen Smith.
3. November 17.—"Half the Earth." Horace G. Byers.
4. December 1.—"Isaac I. Stevens." Edmond S. Meany.
5. December 15.—"The Fur Seal." Trevor C. D. Kincaid.
6. January 12.—"The Rise of the Drama." Adolph F. Bechdolt.
7. January 26.—"Heredity and the Cell." Homer R. Foster.
8. February 9.—"Fruits of the Press." Alex. B. Coffey.

Such services are rendered cheerfully by the professors who ask only that their expenses be paid. They believe that whatever they can do for advancing the general educational work of the state adds that much to the value and influence of the State University.

LECTURES AT TEACHERS' INSTITUTES.

The faculty of the University of Washington wishes as far as possible to assist in making the teachers' institutes of the state the inspiration that they should be. Several of the instructors of the University who have had experience in the lecture field and institute work, are ready to offer their services to county superintendents desirous of obtaining lecturers. None of these instructors desire to be known as "professional" institute men, but each is a specialist in his own line and desires to do all he can to help the teachers of the public schools and to increase the bond between them and the State University.

ORGANIZATION OF THE UNIVERSITY.

The UNIVERSITY OF WASHINGTON embraces:—

The College of Liberal Arts.
The College of Engineering.
The School of Mines.
The Graduate School.
The School of Pedagogy.
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 o Mines, are arranged to cover a period of four years. The courses in the School of Pedagogy, the School of Pharmacy, and the School of Law, are for a period of two years. In the Graduate School those leading to master's degrees are not less than one year and to the doctorate not less than three.

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

T e School of Medicine is not yet organized.

Work in military science and tactics is required of all able-bodied male students of the various colleges during the first two years of their University residence. The young

women of the colleges are required to take work in physical culture and hygiene during the same period.

DIVISION OF THE YEAR.

The year is divided into three terms called respectively the fall, winter, and spring terms. Admission will be granted at the beginning of any term for students properly prepared, but freshmen should always enter at the beginning of the fall term, if possible.

ADMISSION.

The requirements for admission may be ascertained by consulting the statements under the head of Admission in the various colleges and schools.

REGISTRATION AND ELECTION OF STUDIES.

Registration Day is the first day of the term.

The student applies first to the Registrar, who furnishes the enrollment blanks.

A student registering in the University for the first time then submits his diploma from a high school, certificate of standing from another institution, or other credits to the Faculty Committee on Admission, which places the student according to his certified credits.

The student next takes the report of this committee to his proper class officer (see Class Officers, p. 20), who fills out and signs the study blank for the student.

The student then presents his blank thus signed to the President of the University for his signature, and then in turn to the several professors with whom he is registered,

who also sign it, the last signer retaining the blank and returning it to the Registrar.

A student who has been previously registered, instead of presenting himself to the Committee on Admission, obtains blanks from the Registrar and reports to his proper class officer and then completes his registration as above.

THE COLLEGE OF LIBERAL ARTS.

THE FACULTY.

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

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

ADOLPH F. BECHDOLT, PH. D.,
Professor of English Literature.

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

EDMOND S. MEANY, M. S.,
Professor of History and Instructor in Forestry.

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

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

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

THOMAS E. DOUBT, A. M.,
Professor of Physics and Electrical Engineering.

ALEXANDER B. COFFEY, B. S. D.,
Professor of Pedagogy.

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

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

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

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

CHARLES W. VANDER VEER,
Professor of Physical Culture.

CAROLINE H. OBER,
Professor of Romance Languages.

MARTHA L. HANSEE, A. M.,
Professor of Greek.

DORSEY A. LYON, A. B., E. M.,
Professor of Mining and Metallurgy.

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

TREVOR C. D. KINCAID, B. S.,
Assistant Professor of Biology.

EDWIN C. STARKS,
Assistant Professor of Biology.

OTHER INSTRUCTORS.

THOMAS W. LOUGH, PH. G., B. S.,
Instructor in Chemistry.

HENRY L. REESE, A. B.,
Tutor in Greek and Latin.

DAVID KELLY, B. S.,
Tutor in Physics.

THOMAS W. MITCHELL, A. B.,
Tutor in Mathematics.

HENRY KNIGHT,
Assistant in Chemistry.

CHARLES A. RUDDY,
Assistant in Geology.

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 faculty, he is guided in everything after the general direction of his work has been once determined.

ADMISSION.

I. REGULAR ADMISSION.

Admission to the freshman class of the College of Liberal Arts may be secured in three ways—

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

1. Admission by Examination.

To be admitted in this way, students must pass an examination* in one of the four groups of subjects mentioned below. These groups correspond respectively to the Classical, Latin, Scientific, and English Courses of the high schools of the state. Full details of the ground each subject covers is found below under the head of Suggestions for Preparation.

Classical Course, or Group I.	*Latin Course, or Group II.*	*Scientific Course, or Group III.*	*English Course, or Group IV.*
English.	English.	English.	English.
Mathematics.	Mathematics.	Mathematics.	Mathematics.
American History.	American History.	American History.	American Hist.
Civics.	Civics.	Civics.	Civics.
Botany.	Botany.	Botany.	Botany.
Physics.	Physics.	Physics.	Physics.
Elementary Latin.	Elementary Latin.	German or French.	
Advanced Latin.	Advanced Latin.		
Greek.	German or French.		
One other subject selected from the *List for Election*, which appears below.	One other subject selected from the *List for Election*, which appears below.	Four other subjects selected from the *List for Election*, which appears below.	Five other subjects selected from the *List for Election*, which appears below.

LIST FOR ELECTION.—Chemistry, General History, English History, Greek and Roman History, Solid Geometry and Plane Trigonometry, Physical Geography, Zoology, Mechanical Drawing, Physiology, any other subject involving one year's study, if not already specified in the group.

*For date of examinations, see Calendar on page 10.

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.

I—ENGLISH.

NOTE.—No candidate will be accepted in English whose work is notably defective in spelling, punctuation, idiom, or division into paragraphs.

1. The candidate must be prepared in the essentials of grammar, as shown by his ability to parse each word and to analyze each sentence in a given exercise.

2. He must have a knowledge of the elements of rhetoric and composition, and will be required to write a short essay, correct in spelling, punctuation, grammar, division into paragraphs, and in expression, on a subject announced at the time of the examination.

3. He will be expected also to show a general knowledge of certain works and a thorough study of certain others. The books set for this part of the examination are stated below.

A general knowledge of the following works and their authors is required: George Eliot's Silas Marner; Pope's Homer's Iliad, books I, VI, XXII, and XXIV; the Sir Roger de Coverly Papers in the Spectator; Goldsmith's Vicar of Wakefield; Scott's Ivanhoe; Shakespeare's Merchant of Venice; Cooper's Last of the Mohicans; Tennyson's Princess; Coleridge's Rime of the Ancient Mariner.

A thorough study of the subject matter, form, and structure of the following: Shakespeare's Macbeth; Milton's L'Allegro, Il Penseroso, and Comus; Burke's Speech on the Conciliation with America; Macaulay's Essays on Milton and Addison.

II — MATHEMATICS.

1. *Algebra.*—Acquire a thorough knowledge of the elements of algebra through quadratic equations, including simultaneous equations of the first degree, factoring, ratio and proportion, the theory of exponents (positive, negative, fractional), and radicals. Fisher and Schwatt's School Algebra, and the Elementary Algebra of Charles Smith as revised by Professor Stringham, are good works to use in preparation for examination in this subject.

2. *Plane Geometry.*— Master five books of plane geometry. Phillips and Fisher's Plane Geometry is recommended. In examination the student's ability to work original exercises is carefully tested.

III — AMERICAN HISTORY.

Study the history of the United States and the general facts of physical, political, and descriptive geography. John Bach McMaster's School History of the United States (New York, 1897), and John Fiske's United States History are recommended as good works for preparation.

IV — 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 these to be assigned at the time of the examination.

V — BOTANY.

As recommended by the "Committee of Ten" of the National Educational Association, the work in botany should begin with a study of the simplest forms (unicellular plants), and, by a wise selection of typical plants, proceed

gradually to a study of the more complex forms, in such a way as to gain a comprehensive knowledge of the relation of all plant life. If Gray's Lessons are to be used as a text, they should be supplemented by laboratory work from Bergen's, Getchel's, or Spaulding's Introduction to Botany (Revised Edition). Applicants for credit in this subject should present their note books or other evidence of laboratory work.

VI — PHYSICS.

An amount represented by Stewart's Lessons in Elementary Physics, or Carhart and Chute's Physics. This study should be preceded by algebra to quadratic equations, and plane geometry, and each should continue through one school-year (at least one hundred and fifty periods) in the secondary schools. Laboratory practice is advised.

VII — ELEMENTARY LATIN.

1. *Latin Lessons.*—The student must be thoroughly versed in the inflection of nouns, adjectives, and verbs, in the case-endings and stems of each declension, and in the stems, tense-signs, and personal endings of the verbs. The main rules of syntax should be fully mastered, as also perfect accuracy in pronunciation and in the ability to read easily without faltering.

2. *Cæsar.*—Four books of Cæsar's Gallic War, or an equivalent in another author of equal grade. Constructions must be explained by the application of the rules of syntax.

3. *Sight-Work.*—The student should be drilled in the ability to translate at sight any piece of simple Latin prose in the style of Cæsar or Nepos, and to do so with ease and facility.

VIII — ADVANCED LATIN.

1. *Cicero.*—Four of Cicero's orations. Besides the ability to translate and construe, the student should have some knowledge of Roman oratory and the law courts.

2. *Vergil.*—Six books of the Æneid, familiarity with Latin prosody, and a knowledge of the syntax of poetry.

3. *Latin Composition.*—By the ability to translate into Latin a simple passage of connected English, the student must show his vocabulary and his knowledge of Latin syntax and modes of expression.

4. *Sight-Work.*—The student must be so drilled in this line that he can, with ease and facility, translate at sight portions of Cicero's orations and Vergil's Æneid.

IX — GREEK.

1. *Greek Lessons.*—A thorough knowledge of the inflection of nouns, adjectives, and verbs, such as the case-endings and stems of each declension, and the stems, tense-signs, thematic vowels, and personal endings of the verbs. Accuracy in pronunciation, facility in reading and translation, and familiarity with the main rules of syntax.

2. *Anabasis.*—Books I, II, and III of Xenophon's Anabasis, or an equivalent, with a proper explanation of construction by the rules of syntax.

3. *Sight-Work.*—Facility in translating at sight a simple passage of Greek prose.

4. *Greek Composition.*—Ability to render an ordinary passage of English into idiomatic Greek, correct in expression and syntax.

5. *Iliad.*—Books I, II, and III of Homer's Iliad. Prosody of Greek hexameters.

X — GERMAN.

An outline of German grammar as given in Otis' German Grammar, or an equivalent, including translations from German into English and English into German; the reading of about 150 pages of easy prose and a classic such as Schiller's Wilhelm Tell.

XI — FRENCH.

French grammar as outlined in Edgren's French Grammar, or an equivalent, including translations from French into English, and *vice versa*; and the reading of about 150 pages of standard French prose.

XII — CHEMISTRY.

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

XIII — GENERAL HISTORY.

Myers's Ancient, and Mediæval and Modern Histories are suggested as text-books in general history. Special attention should be given to European history, and the period of the middle ages should be thoroughly mastered.

XIV — ENGLISH HISTORY.

Ransome's Short 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 Macaulay and Green, and one year should be spent in preparation.

XV — GREEK AND ROMAN HISTORY.

Prepare thoroughly in Greek history through the period of Alexander the Great, with the geography connected

therewith; and in ancient Roman history and development of the Roman constitution. Myers's and Allen's text-books are recommended.

XVI—SOLID GEOMETRY AND PLANE TRIGONOMETRY.

Books VI, VII, and VIII of Beman and Smith's Geometry, or equivalent, should be carefully read. 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.

XVII—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 types of proper texts.

XVIII—ZOOLOGY.

A study of the structure and relationship of animals according to Packard's Zoology, accompanied by practical dissection under the direction of a competent teacher.

XIX—DRAWING.

The equivalent of one year's work in mechanical drawing. Geometric and orthographic drawing.

XX—PHYSIOLOGY.

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

2. Admission from an Accredited School.

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

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

List of Accredited Schools.

Until the faculty has reason to change its judgment in some way, the schools mentioned below will be considered "accredited" and their graduates admitted to the freshman class of the College of Liberal Arts without examination.

HIGH SCHOOLS.

Everett.	North Yakima.	Spokane.
Fairhaven.	Port Townsend.	Tacoma.
New Whatcom.	Seattle.	Vancouver.
	Walla Walla.	

A list of the academies accredited will be sent on application.

Schools that cannot yet offer the amount of work required for entrance to the freshman class, may be accredited to the various classes of the Preparatory School, if their courses and methods are reported as satisfactory.

3. Admission from the Preparatory School.

Students completing the course of the Preparatory School of the University are admitted to the freshman class

of the College of Liberal Arts. The work of the Preparatory School is detailed below under the statement concerning that department of the University.

II. ADMISSION AS SPECIAL STUDENTS.

Persons who are at least eighteen years of age and who can give satisfactory evidence of their fitness to pursue the particular courses of study which they desire to elect, will be admitted to the College of Liberal Arts without examination, but cannot be candidates for a degree. All such persons must show that they have a good working knowledge of English.

Should a student pursuing special work desire to become a candidate for a degree, he must pass the examinations for admission corresponding to some one of the groups required of students who enter regularly, at least one year before taking the degree, and complete all the required courses.

III. ADMISSION TO ADVANCED STANDING.

Students from classes above the freshman in other colleges of recognized rank, who present letters of honorable dismissal, may be admitted to such advanced standing as their training seems to fit them. No advanced credit will be given for work done in institutions of inferior standing, except upon examination.

ELECTION OF STUDIES.

Blanks will be provided for the election of studies. Students, with the advice of their class officers, must fill out these blanks. No credit will be allowed for any course not named in the blank.

The maximum number of hours a week that a student

may elect without special permission of the faculty is eighteen. Students are advised to limit the election to fifteen hours a week, which number it is necessary to complete in order to graduate in four years. Students having passed any examination conditionally will not be allowed to take the maximum number of hours until the condition is removed.

COURSE OF THE COLLEGE OF LIBERAL ARTS.

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

The unit "term hour" is used to represent the number of hours a week required in each subject, expressed for a period of one term. For example, a subject requiring three hours a week for one term represents a requirement of three "term hours;" if it requires three hours a week for one year, it represents a requirement of nine "term hours."

Plan of the Course.

The general plan given below shows how the one hundred and eighty hours are to be divided. The Roman numerals indicate various subjects in each department, which are described in full under the departmental statements, page 129 and following.

Freshman Year.

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

Sophomore Year.

Latin, IV, V, VI: or Physics, I, II, III	9
English Literature, I, II, III	9
Political Science, I, II, III; or Philosophy, I, II, III	9
Elective	18
Military Drill (for men); or Physical Culture (for women)	6
	51

Junior Year.

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

Senior Year.

Major Study	18
Collateral Study or Studies	18
Elective	9
	45

Summary of the Course.

It will be seen that while every line of study is represented in the foregoing course, the student is given considerable freedom in choosing specific subjects, and that wide opportunities for developing individuality and preparing for a specialty or for professional study are likewise afforded.

The course may be described as follows :

	Term Hours.
Prescribed	27
Elective within limits	54
Free Elective	45
Major Study	27
Collateral Study or Studies	27
	180
Military Drill or Physical Culture	12
	192

MAJOR AND COLLATERAL STUDIES.

At the beginning of his junior year the student is required to choose a major study, in which he must before graduation complete twenty-seven term hours. He may count some of the work already performed as a part of the twenty-seven term hours in the major study, but he must in that case add the amount of time transferred to what is required to be given to free elective.

As soon as the student selects his major study, the head of that department is constituted his adviser, and the student must consult him with regard to every step in his course. With the guidance of his adviser thus chosen, the student selects during the rest of his course twenty-seven term hours in a collateral study or studies; that is, in subjects related to his major work and calculated to strengthen it.

DEGREES.

Students who complete the course of the College of Liberal Arts will receive the degree of Bachelor of Arts (A.B.), except those who have selected a science as their major study and prefer the degree of Bachelor of Science (B. S.) The corresponding advanced degrees, Master of Arts (A. M.), Master of Science (M. S.), and Doctor of Philosophy (Ph. D.) are granted by the faculty of the Graduate School according to regulations stated under that head.

Degree with Honors.

A degree with honors in his major study will be conferred upon any student who shall have attained a grade of A (87 to 100 per cent.) in his major department, a grade of B (75 to 87 per cent.) in his collateral department or departments, and shall have maintained an average of B in his other studies. Application for a degree with honors must be made to the President in writing at least one month before commencement.

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 that by giving instruction in the theory and art of teaching these schools may be brought into closer relations with the University.

To this end a normal diploma will be granted to students taking a baccalaureate or higher degree in the College of Liberal Arts, who shall complete the work in the department of pedagogy, provided they give satisfactory evidence of their fitness for teaching. Those who intend to make teaching their profession will be required to select pedagogy as their major subject in the junior year.

TEACHERS' CERTIFICATES.

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

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

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

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

The hours set for the subjects required in the freshman and sophomore years, are as follows :

Freshman Year.

	Monday.	*Tuesday.*	*Wednesday.*	*Thursday.*	*Friday.*
8:40.	Latin, I, II, III.		Latin, I, II, III.		Latin, I, II, III.
	French, I, II, III.		French, I, II, III.		French, I, II, III.
9:30.	Greek, I, II, III.	Botany, I, II, III.	Greek, I. II, III.	Greek, I, II, III.	Botany, I, II, III.
	German, I, II, III.		German, I, II, III.	German, I, II, III.	
	History, I, II, III.		History, I, II, III.	History, I, II, III.	
10:20.	Assembly Exercises every day.				
10:40.	Spanish, I, II, III.	Rhetoric, I, II, III.	Spanish, I, II, III.	Rhetoric, I, II, III.	Rhetoric, I, II, III
	Geology, I, II, III.	French, VII, VIII, IX.	Geology, I, II. III.	French, VII, VIII, IX.	
	German, VII, VIII, IX.		German, VII, VIII, IX.		
11:35.	Math., I, II, III.	Zoology, I, II, III.	Math., I, II, III.	Zoology, I, II, III.	Math., I, II, III.
		Chemistry, I, II, III.		Chemistry, I, II, III.	
1:00.	French, VII, VIII, IX.	German, VII, VIII. IX.			Spanish, I, II, III.

Sophomore Year.

8:40.	English, I, II, III.	Physics, I, II, III.	English, I, II, III.	Physics, I, II. III.	English, I, II, III.
9:30.	Philosophy, I, II, III.	Philosophy, I, II, III.		Philosophy, I, II, III.	
10:20.	Assembly Exercises every day.				
10:40.	Pol. Sci., I, II, III.	Pol. & Soc. Sci., IV, V, VI.	Pol. Sci., I, II, III.	Pol. & Soc. Sci., IV, V, VI.	Pol. Sci., I, II, III.
11:35.	Latin, IV, V, VI.	Latin, IV, V, VI.		Latin, IV, V, VI.	

THE GRADUATE SCHOOL.

THE GRADUATE SCHOOL.

FACULTY COMMITTEE ON GRADUATE STUDIES.

FRANK P. GRAVES, PH. D., LL. D.,
President of the University.

ADOLPH F. BECHDOLT, PH. D.,
Professor of English.

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

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

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

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

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

PURPOSE.

The Graduate School is designed to offer advanced courses to students who desire, after graduation, to pursue special lines of work, preparatory to entering upon the vocation of teaching or some other profession, or for the sake of general culture.

ADMISSION.

A graduate of the University of Washington or of any other institution of like grade and standing may be admitted for graduate work upon the presentation of his diploma or other evidence of such graduation, and become a candidate for a higher degree under such restrictions and provisions as may be imposed for the conferring of such higher degrees.

ADVANCED DEGREES.

The degrees conferred by the faculty of the Graduate School are Master of Arts (A. M.), Master of Science (M. S.), Civil Engineer (C. E.), Electrical Engineer (E. E.), Engineer of Mines (E. M.), and Doctor of Philosophy (Ph. D.). They are granted in accordance with the regu lations below.

REGULATIONS.

One month before his examinations each candidate for an advanced degree must pass an oral examination intended to show his general training and fitness. This oral examination will be conducted in the presence of the faculty of the Graduate School.

Master's Degrees.

The degree of Master of Arts (A. M.) or Master of Science (M. S.) is conferred upon graduates of the University and upon others who have had an equivalent training elsewhere, on the satisfactory completion in residence of one year of graduate work, and on the presentation of an approved thesis, or the passing of a satisfactory examination, or both. The course of study for the master's degree is intended to correspond in amount and character to the

first year's work for the doctor's degree, and will be under the direction of a committee as in the case of the doctor's degree (which see, below). The thesis may be dispensed with at the discretion of the committee in charge of the student's work. In case a thesis is presented and approved, a bound copy must be presented to the library of the University.

The master's degrees in engineering, namely, Civil Engineer (C. E.), Electrical Engineer (E. E.), and Engineer of Mines (E. M.), 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.

Doctor's Degree.

I. The degree of Doctor of Philosophy (Ph. D.) is open to all students who have received a bachelor's degree in arts, science, philosophy, or letters, but no student will be accepted as a candidate for the doctor's degree who has not a knowledge of French and German sufficient for purposes of research.

II. It is not intended that the doctor's degree shall be won merely by faithful and industrious work for a prescribed time in some assigned course of study, and no definite term of required residence can be specified. As a rule, three years of graduate study will be necessary, the last year of which must be spent at this University. The period of three years, however, may be shortened in the case of students who as undergraduates have pursued special studies in the direction of their proposed graduate work.

III. No student will be enrolled as a candidate for the doctor's degree until he has been in residence as a graduate student for at least one year. (This rule may be waived in the case of those who come properly accredited from a graduate school of some other university, and of those who as undergraduates in this University have shown special proficiency in the line of their proposed graduate work.)

IV. A student wishing to become a candidate for the doctor's degree must make a formal application to the faculty to be enrolled, at least one year prior to the time of presenting himself for examination.

V. A candidate for the doctor's degree must take a major study that is substantially co-extensive with some one department of instruction in the University. He must also take two minor studies, one of which may be in the same department as the major, but involving a more thorough treatment of the same. Both minors must be cognate to the major. The candidate's work will be done under the direction of a committee consisting of the professors in charge of the three subjects, the professor of the major subject being chairman.

VI. Candidates are required to announce to the committee, as early as the first of October of each year, the particular branches of study to which they wish to give special attention.

VII. The subject of the thesis for the doctor's degree must be chosen, and must be approved by the committee, as early as the first of November of the college year in which the applicant expects to take the degree.

VIII. The thesis must be completed and put into the hands of the chairman of the committee as early as the first of April of the year in which the applicant expects to

take the degree. It must be prepared for close scrutiny with reference not only to its technical merits, but also to its merits as a specimen of literary workmanship. It must be preceded by an analytical table of contents and a carefully prepared account of the authorities made use of. The thesis must be read and defended in public at such time as the committee may appoint. In case of the acceptance of their theses, candidates are required to have the accepted theses printed in full or in part as may be approved by the committee, and to present twenty-five copies to the University library.

THE SCHOOL OF PEDAGOGY.

THE SCHOOL OF PEDAGOGY.

THE FACULTY.

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

ALEXANDER B. COFFEY, B. S. D., DEAN,
Professor of Pedagogy.

ADOLPH F. BECHDOLT, PH. D.,
Professor of English Literature.

HENRY LANDES, A. M.,
Professor of Geology and Physical Geography.

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

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

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

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

CHARLES W. VANDER VEER,
Professor of Physical Culture and Hygiene.

MARTHA LOIS HANSEE, A. M.,
Dean of Women.

TREVOR C. D. KINCAID, B. S.,
Assistant Professor of Biology.

THOMAS W. LOUGH, PH. G.,
Instructor in Chemistry.

HENRY L. REESE, A. B.,
Tutor in Latin.

THOMAS W. MITCHELL, A. B.,
Tutor in Mathematics.

HENRY G. KNIGHT,
Assistant in Chemistry.

CHARLES A. RUDDY,
Assistant in Physical Geography.

The following members of the University faculty offer elective courses in the School of Pedagogy:

CHARLES F. REEVES, M. S., in German.
EDMOND S. MEANY, M. S., in History.
ARTHUR RANUM, A. B., in Mathematics.
ALMON H. FULLER, C. E., in Mechanics.
THOMAS E. DOUBT, A. M., in Physics.
THOMAS F. KANE, PH. D., in Latin.
ARTHUR R. PRIEST, A. M., in Rhetoric and Oratory.
CAROLINE H. OBER, in French and Spanish.
DORSEY A. LYON, A. B., in Assaying.
EDWIN C. STARKS, in Biology.

PURPOSE.

The purpose of the School of Pedagogy is to meet the needs of students intending to become teachers in the public schools and academies of Washington.

As abundant facilities are now afforded by the three state normal schools, the School of Pedagogy will not receive students hereafter, unless they take the full four years in the College of Liberal Arts and elect pedagogy as their major subject in the junior year. The School of Pedagogy will thus become a department of the College of Liberal Arts. Students now enrolled will be given an opportunity to graduate on the old basis.

ADMISSION.

Admission on Certificate.

Students will be admitted to the junior year of the School of Pedagogy without examination upon the presentation of a diploma or other evidence of graduation from an accredited high school of four years.

Admission by Examination.

Students may also be admitted to the junior year by passing a satisfactory examination in the following subjects: arithmetic, algebra, plane geometry, reading, English, elementary Latin, botany, physiology, physical geography, zoology, physics, school economy and school law, theory and observation of teaching, methods of teaching, practice teaching, elementary psychology and logic, American and English history, music, and drawing. The amount included in each of these subjects is, with the exception of music, stated under Suggestions for Preparation (page 69 and following). In music an ability to sing easy compositions and to read music at sight is required.

Admission of Special Students.

Special students are admitted to the School of Pedagogy on the same terms as to the College of Liberal Arts (page 76), except that the candidate for such admission must show evidence of having taught at least one successful term of school.

COURSES OF THE SCHOOL OF PEDAGOGY.

Two courses are offered; the regular course and a course for college graduates.

Plan of the Courses.

The Roman numerals indicate various subjects in each department which are described in full under the departmental statements, 129 (page and following). Where no Roman numeral occurs, the subject usually comes in the course of the Preparatory School. The Arabic numerals show the number of hours a week a subject is given. Where no Arabic numeral is expressed, 3 is understood.

I. Regular.

Fall Term.	*Winter Term.*	*Spring Term.*
	JUNIOR YEAR.	
Pedagogy I.	Pedagogy II.	Pedagogy III.
Pedagogy IV.	Pedagogy V.	Pedagogy VI.
Pedagogy VII.	Pedagogy VIII.	Pedagogy IX.
Pedagogy X.	Pedagogy XI.	Pedagogy XII.
Philosophy I.	Philosophy II.	Philosophy III.
Geology VII, Botany I, or Zoology I.	Geology VIII, Botany II, or Zoology II.	Geology IX, Botany III, or Zoology III.
	SENIOR YEAR.	
Pedagogy XIII.	Pedagogy XIV.	Pedagogy XV.
Pedagogy XVI.	Pedagogy XVII.	Pedagogy XVIII.
Philosophy X.	Pedagogy XIX.	Pedagogy XX.
History I.	Philosophy XI.	Philosophy XII.
Elective.	History II.	History III.

II. FOR COLLEGE GRADUATES.

Fall Term.	*Winter Term.*	*Spring Term.*
	JUNIOR YEAR.	
Pedagogy IV.	Pedagogy V.	Pedagogy VI.
Pedagogy XIII.	Pedagogy XIV.	Pedagogy XV.
Pedagogy XVI.	Pedagogy XVII.	Pedagogy XVIII.
Philosophy X.	Philosophy XI.	Philosophy XII.
Pol. Science XIII.	Pol. Science XIV.	Pedagogy XX.

Training School.

Members of the senior class will be required to teach in the Preparatory School and elsewhere, under supervision and careful criticism.

GRADUATION.

Inasmuch as the demand for first class teachers is becoming more and more peremptory and the professional standard is constantly being raised, only those who show an evident fitness for teaching will be graduated. The Dean of the School of Pedagogy will, independently of class standing, be in each case the judge of this fitness.

DEGREES.

Graduates of either of the courses will receive a diploma with the degree of Bachelor of Pedagogy (Ped. B.).

Degree with Honors.

The baccalaureate in pedagogy with honors is conferred upon students of the School of Pedagogy who maintain an average of A (87 to 100 per cent.) in all their studies, if recommended by the Dean for this distinction.

THE COURSES OF INSTRUCTION

IN THE

COLLEGE OF LIBERAL ARTS, COLLEGE OF ENGINEERING, SCHOOL OF MINES, GRADUATE SCHOOL, SCHOOL OF PEDAGOGY, AND SCHOOL OF PHARMACY,

ARRANGED ACCORDING TO DEPARTMENTS.

DEPARTMENTS OF INSTRUCTION.

I.—DIVISION OF LANGUAGE AND LITERATURE.

HEBREW.

DR. KANE.

It is the purpose of this department to give the student a working knowledge of the language of the Old Testament, such as will enable him to study sympathetically the life of the Jewish people. The first two terms are devoted to grammatical work and to the acquisition of a vocabulary. Some easy prose is read. During the third term selections from Genesis and Psalms are critically translated.

SUBJECTS.

I, II, III. **Elementary.** Harper's Inductive Hebrew Method; Vocabulary and word studies; Translation of easy prose; Selections from Genesis and Psalms; Toy's History of the Religion of Israel. [Three times a week throughout the year.]

GREEK.

PROFESSOR HANSEE AND MR. REESE.

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

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

As the student advances, more attention is given to style and thought and to the life and literature of the Hellenic people. An

extensive reading of Greek authors is undertaken. It is the aim of the department, however, to secure not only facility in reading, but also, as far as possible, a true appreciation of the style and spirit of the Greek writers, and acquaintance with the wisdom and knowledge embodied in their works.

SUBJECTS.

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

IV, V, VI. **Xenophon, Homer.** Goodwin's Revised Edition of Anabasis of Xenophon, books I-III; Seymour's Iliad of Homer, books I-III; Elegiac, Lyric, and Iambic poets (selections). [Three times a week throughout the year. No credit allowed, if presented for entrance. Prerequisite, III.]

VII, VIII, IX. **Composition, Sight Reading.** Woodruff's Greek Prose Composition; Sight Reading from Xenophon's Anabasis, IV-VII, and from Homer's Iliad, III-VI. [Three times a week, throughout the year. No credit allowed, if presented for entrance. Prerequisite, III]

X, XI, XII. **Xenophon, Lysias, Homer.** Memorabilia or Cyropædia of Xenophon; Morgan's Orations of Lysias; Homer's Odyssey, VI-VIII; Greek Prose Composition. [Three times a week throughout the year. Prerequisite, VI and IX.]

XIII, XIV, XV. **Dramatists.** Flagg's Iphigenia in Tauris of Euripides; Graves's Philoctetes of Sophocles; Allen's Seven Againt Thebes of Aeschylus, or Humphreys's Clouds of Aristophanes; Goodwin's Moods and Tenses of the Greek Verb; Lectures on the origin of the drama, the Greek theatre, the Greek lyric poets, and the dramatists. [Three times a week throughout the year. Prerequisite, XII.]

XVI, XVII, XVIII. **Orators and Philosophers.** Isocrates (Panegyric); Aeschines (Against Ctesiphon); Demosthenes (On the Crown); Plato (Republic); Aristotle (Ethics, Books I-IV and X.) [Three times a week throughout the year. Prerequisite, XII.]

LATIN.

PROFESSOR KANE AND MR. RÆSE.

In the department of Latin special attention is given during the freshman year to the structure of the Latin sentence as illustrated in select portions of the writings of Cicero, Livy, and Horace. Frequent written and oral exercises in Latin prose composition and sight reading of Latin prose form part of the course.

From the beginning of the sophomore year the chief object is the study of Roman life and literature by a critical reading of selections from the best authors. This reading is accompanied in the sophomore year by the study of Roman archæology.

In the junior year the study of the language is continued by an examination of the structure of words and an analysis of the oldest forms with the changes into those of classic Latin.

During the senior year a study is made of Roman philosophical writings or of Roman jurisprudence. Topics on the origin and formation of the late Latin dialect are assigned to the class.

SUBJECTS.

I, II, III. **Augustan Prose and Poetry.** Kelsey's Cicero de Senectute et de Amicitia; Lord's Livy XXI; Smith's Odes of Horace. Composition based upon the text of Cicero and Livy. Sight reading of Cicero. Lectures on the Augustan Age and on lyric poetry. [Three times a week throughout the year.]

IV, V, VI. **Roman Life.** Horace's Satires; Selections from Juvenal; Peck and Arrowsmith's Roman Life in Prose and Verse; Miller's New Latin Composition. Lectures on the development of the Roman satire and on Roman life and literature. [Three times a week throughout the year. Prerequisite, III.]

VII, VIII, IX. **Roman Comedy.** Andria and Phormio of Terence; Morris's Mostellaria and Trinummus of Plautus; Allen's Remnants of Old Latin. Lectures on the Roman theatre and comedy and on Latin etymology and prosody. [Three times a week throughout the year. Prerequisite, VI.]

X, XI, XII. **Roman Philosophy.** Kelsey's De Rerum Natura, I–III, of Lucretius; Cicero, de Natura Deorum, II–III. Selections

from Cicero, de Divinatione et de Fato. Lectures on the development of Roman philosophy. [Three times a week throughout the year. Prerequisite, VI.]

(XIII, XIV, XV. Roman Law. Huschke's Justitiani Institutiones; Sohm's Institutes of Roman Law. Lectures on Roman jurisprudence, with reference to titles of the Digest and the commentaries of Gaius; also on the history of the Latin language.)

Subjects X, XI, XII and XIII, XIV, XV are given alternate years. Subjects X, XI, XII will be offered in 1900–1901.

GERMAN.

PROFESSOR REEVES.

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

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

SUBJECTS.

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

IV, V, VI. **Supplementary.** [Two times a week throughout the year. No credit, if presented for entrance.]

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

X, XI, XII. **Selected Work.** Comedy; Scientific selections; Schiller's Jungfrau von Orleans. Two times a week throughout the year. Prerequisite, IX.]

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

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

Subjects XIII, XIV, XV and XVI, XVII, XVIII are given alternate years. Subjects XVI, XVII, XVIII will be offered in 1900–1901.

ROMANCE LANGUAGES.

PROFESSOR OBER.

FRENCH.

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

SUBJECTS.

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

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

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

(X, XI, XII. **Advanced Study of the Literature.** Continuation of the study of French literature; copious readings from va-

rious authors, especially from the plays of Corneille, Racine, and Moliere. [Two times a week throughout the year. Prerequisite, XII.])

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

Subjects X, XI, XII and XIII, XIV, XV are given alternate years. Subjects XIII, XIV, XV will be offered in 1900-1901.

XVI. **Scientific.** Selections on scientific subjects and in modern magazines. [Three times a week; winter term. Prerequisite, IX.]

SPANISH.

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 islands 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 offered to acquire a knowledge of practical and commercial Spanish.

SUBJECTS.

I, II, III. **Elementary.** Lessons in Spanish on everyday topics; training of the ear and tongue. Essentials of Spanish grammar; reading of El Pajaro Verde by Juan Valera. [Three times a week throughout the year.]

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

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

Subjects IV, V, VI and VII, VIII, IX, are given alternate years. VII, VIII, IX will be offered in 1900-1901.

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

ENGLISH LANGUAGE AND LITERATURE.

PROFESSOR BECHDOLT.

Three objects are contemplated in the arrangement of the courses in English language and literature: (1) a critical knowledge of and proficiency in the use of English as obtained from a careful study of classic authors; (2) a general acquaintance with English literature; and (3) a study of the elements of English and of comparative philology.

SUBJECTS.

I, II, III. **Chaucer, Bunyan, and Milton.** Corson's Selections from Chaucer's Canterbury Tales, Bunyan's Pilgrim's Progress, and Milton's Minor Poems. A study of the literary and linguistic value of these English classics. [Three times a week throughout the year. Prerequisite, Rhetoric III.]

IV, V, VI. **Old English.** Cook's First Book in Old English, Harrison and Sharp's Beowulf. [Three times a week throughout the year. Prerequisite, III.]

VII, VIII. **History of English Literature.** Lectures on the growth and historic environment of our literature, frequent reports and theses. [Three times a week; fall and winter terms. Prerequisite, III.]

IX. **Shakespeare.** The dramas of Hamlet and Macbeth are made the basis of a close study of the language and dramatic skill of the poet. [Three times a week; spring term. Prerequisite, VIII.]

X. **History of English Language.** Lounsbury's History of the English Language. Consideration of the elements, dialectic

changes, and inflectional forms. [Three times a week; fall term. Prerequisite, III.]

XI. **English Etymology.** Morris's Historical Outlines of English Accidence. Lectures on the phonology, stems, affixes, and changes in the meaning of English words. [Three times a week; winter term. Prerequisites, VI, VIII, and X; French III; and German III.]

XII. **Elements of Comparative Philology.** Brugmann's Comparative Grammar of the Indo-Germanic Languages; Giles's Manual of Comparative Philology. Lectures on the phonology, and inflections and grammar of the Aryan languages. [Three times a week; spring term. Prerequisites, XI; Latin III; and Greek III.]

XIII. **Literature of Elizabethan Age.** Saintsbury's History of English Literature. [Two times a week; fall term. Prerequisite, VIII.]

XIV. **English Essayists.** A study of extracts from Bacon, Lamb, Macaulay, Ruskin. Two times a week; fall term. Prerequisite, VIII.]

XV, XVI. **Poets of the Nineteenth Century.** Stedman's Victorian Poets. [Two times a week; winter and spring terms. Prerequisite, VIII.]

RHETORIC AND ORATORY.

PROFESSOR PRIEST.

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. With this end in view, there will be much writing and constant practice in prepared and impromptu speaking.

SUBJECTS.

I, II, III. **English Composition.** Elements of effective writing in prose, based on practical composition. Required of freshmen in all courses. [Three times a week throughout the year.]

IV, V, VI. **Interpretative Reading.** Lectures on principles of vocal expression and literary interpretation. The purpose is to teach the art of effective reading and speaking. [Three times a week throughout the year.]

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

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

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

II.—DIVISION OF PHILOSOPHICAL SCIENCES.

PHILOSOPHY.

PROFESSOR COLEGROVE.

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

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

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

SUBJECTS.

I, II, III. **Elementary Psychology and Logic.** James's Briefer Psychology; lectures upon the physiology of the senses; experiments. Logic, Jevons-Hill; supplementary discussions and

analysis of arguments. [Three times a week throughout the year.]

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

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

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

PEDAGOGY.

PROFESSOR COFFEY.

The aim of this department is an analytical and comprehensive view of those forces which have wrought the intellectual, ethical, and social evolution of the race, the basic principles underlying each radical or slow-wrought change, and the application of those principles and the husbanding of those forces in the daily work of the class-room.

The fact that the standard by which teachers are estimated is being continually raised everywhere, the increasing demand for professional teachers, and the widespread activity along all lines of educational thought, have made it imperative that the universities should establish pedagogical departments upon the broadest possible plane. The ultimate purpose, therefore, of the department is to give to our graduates and specialists a well-grounded and specific preparation for their work as teachers.

SUBJECTS.

I, II, III. **Applied Psychology.** A discussion of heredity as demonstrated by transmitted features, deformities, physical habits, intellectual aptitudes, tendencies, and traits of character, from the standpoint of observation and investigation, to show the possibilities and probabilities which, independent of other forces,

must go far toward determining the destiny of the individual; a study of the mental faculties of the individual from the standpoint of the teacher; and of the data to be collected from such institutions as represent the different phases of human life—churches, schools, asylums, and prisons. Lectures and assigned readings. [Three times a week throughout the year.]

IV, V, VI. **Child Study.** Original investigation upon a scientific and systematic basis, and a careful study of such data as may be collected from correspondence with teachers, such facts being sought as shall reveal the real content of the child mind, and the reason for such being true; also of the change wrought by youth and varying environment, by school and street, and by change of teacher and parent. Lectures and assigned readings. [Three times a week throughout the year. Prerequisite, III.]

VII, VIII, IX. **History of Civilization.** A study of the interdependence of society, church and state, and educational progress; of such writings of Socrates, Plato, Luther, Fenelon, Comenius, Pestalozzi, Rousseau, and others as shall give a comprehensive knowledge of the doctrines advanced by leaders of thought prior to our own time; and of current educational thought, as found in standard journals and magazines. Lectures and assigned reading. [Two times a week throughout the year. Prerequisite, VI.]

X, XI, XII. **Moral Education.** A careful analysis of the motives, purposes, and hopes which result in the ethical development of the individual, and of the possibilities which should control him in his responsibility to self, to others, and to the world—motives which prompt to avarice or philanthropy, degradation or righteousness, treason or patriotism. Lectures, biography, autobiography, and current reading. [Two times a week throughout the year.]

XIII, XIV, XV. **History of Education.** A study of the methods by which different peoples, tribes, and nations have sought to instruct their children in what has been thought essential or desirable; the evolution of education and educational methods; a survey of the educational systems of Europe, and of the several states of the United States, especially during the growth of 19th

century ideas, in all of which the comparative merits are determined by the study of such original documents as may possibly be secured; a study of the systems in vogue today as represented by the various institutions, courses of study, with their scope and ultimate purpose, technical schools, specialization, and liberal education. Lectures and assigned reading. [Three times a week throughout the year.]

XVI, XVII, XVIII. **Art of Teaching.** A study of the trends and predisposed thought-impulses which give either voluntary or involuntary direction to the intellectual development of the individual and of the possibilities or probabilities which should go far toward determining the subjects to be studied; of the principles underlying correct instruction, and of the application of those principles to the work of the class-room; the adoption and adaptation of methods as nearly identical with natural processes as possible in the teaching of children; the value of inductive and deductive methods at the proper times in the life of the child, the youth, and the adult, the reason for each and the end to be obtained; and the application of these principles in the teaching of the subjects required in the common schools. Lectures. [Three times a week throughout the year. Prerequisites, VI and XV.]

XIX. **School Management.** The proper organization of the school, beginning with the entrance of the teacher into the district, and followed by his meeting the children on the first day, classification or grading of the school, the arrangement of the program, and control and discipline, whether within the class-room, upon the grounds, or upon the road to and from school. Lectures. [Two times a week; winter term.]

XX. **School Management.** A continuation of XIX. For those who may anticipate the work of principals and superintendents; especial stress being placed upon the value of the teacher's bearing in all his work before the school and with individual students; visitation of schools and suggestions to and control of subordinate teachers. Lectures. [Two times a week; spring term.]

POLITICAL AND SOCIAL SCIENCE.

PROFESSOR SMITH.

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

SUBJECTS.

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

II, III. **Economic Theory.** A study of recent economic literature. Marshall's Principles of Economics is used as a text-book. [Three times a week; winter and spring terms. Prerequisite, I.]

IV. **Industrial Revolution.** Text-book and lectures. [Two times a week; fall term. Prerequisite, I.]

V, VI. **Elements of Sociology.** A study of the origin, development, and functions of the family, church, state, and other social institutions. Lectures. [Two times a week; winter and spring terms.]

VII. **Industrial Problems.** A study of the evils of unrestricted competition. An investigation of the meaning of "survival of the fittest," as applied to modern business. Lectures. [Three times a week; fall term. Prerequisite, IV.]

VIII. **Monopoly Problem.** Lectures. [Three times a week; winter term. Prerequisite, I.]

IX. **Socialism.** Text-book and lectures. [Three times a week; spring term. Prerequisite, I.]

X, XI. **Public Finance.** Text-book, Adams' Science of Finance. [Two times a week; fall and winter terms. Prerequisite, I.]

XII. **Labor Question.** Lectures. [Two times a week; spring term. Prerequisite, I.]

XIII. **Political Institutions.** This course has especial reference to the United States and deals with the origin, development,

spirit, and tendencies of our government. Lectures. [Three times a week; fall term.]

XIV. **Money.** Lectures. [Three times a week; winter term. Prerequisite, I.]

XV. **Problems of Municipal Government.** Lectures and text-book. [Three times a week; spring term. Prerequisite, I.]

XVI. **Seminary in Industrial Problems.** [Two times a week; fall term. Prerequisites, I and VII.]

XVII. **Seminary in Public Finance.** [Two times a week; winter term. Prerequisites, I and XI.]

XVIII. **Seminary in Money.** [Two times a week; spring term. Prerequisites, I and XIV.]

HISTORY.

PROFESSOR MEANY.

Stress is laid upon the use of the best authorities, and upon frequent reference to historical sources, whenever available. The library is being constantly enriched in the lines of history. A special library, known as the Frederic James Grant Memorial Library of American History, has been added. 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 on the broader subjects.

SUBJECTS.

I, II, III. **American History.** Colonial Period, 1492–1750; Formation of the Union, 1750–1829; Division and Reunion, 1829–1889. Frequent papers on the principal topics are required. Epochs of American History by Reuben Gold Thwaites, Albert Bushnell Hart, and Woodrow Wilson are used as guides. [Three times a week throughout the year.]

IV, V, VI. **English People.** Prehistoric times to the accession of the House of Tudor, 1485; from the House of Tudor to the close of the reign of the Stuarts, 1485–1714; from the accession of the House of Hanover to the present time, 1714–1895. Ransome's Advanced History of England as text, with collateral readings. [Three times a week throughout the year.]

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

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

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

XII. **French Revolution.** [Three times a week; spring term. Prerequisites, VII, VIII, IX.]

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

XVI. **Methods in History.** Langlois and Seignobos will be used as a guide. Lectures and theses. The handling of sources is treated. [Three times a week; spring term. Prerequisites, VI, VIII, IX.]

III.—DIVISION OF PURE SCIENCE.

CHEMISTRY.

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

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

SUBJECTS.

I, II, III. **General Inorganic.** Experimental lectures; laboratory work on illustrative experiments, leading to qualitative

analysis in the spring term. Freer's Inorganic Chemistry; Richardson's Laboratory Manual; Notes on Qualitative Analysis. [Two lectures and four laboratory hours a week throughout the year. Credit, three term hours.]

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

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

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

VII. **Qualitative Analysis.** Advanced work. [Six laboratory hours and one lecture; fall term. Credit, three term hours. Prerequisite, III.]

PROFESSOR BYERS AND MR. LOUGH.

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

PROFESSOR BYERS AND MR. LOUGH.

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

PROFESSOR BYERS.

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

PROFESSOR BYERS.

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

PROFESSOR LYON.

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

PROFESSOR BYERS.

PHYSICS.

PROFESSOR DOUBT AND MR. KELLY.

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

The method will be largely experimental. The student is expected to devote about half of his time to obtaining experimental results in the laboratory. Experimental demonstration lectures and lectures upon the theory of the subject will be given and the remainder of the student's time will be devoted to the mastery of principles in text book and lecture.

SUBJECTS.

I, II, III. **General.** Mechanics, acoustics, heat, electricity, and light. This is fundamental and is designed to meet the needs of students preparing for the applications of physics as well as those students who desire a general training in the subject. [Two lectures and four laboratory hours a week throughout the year. Credit, three term hours. Open to all students who have taken preparatory physics and have a working knowledge of algebra and trigonometry.]

IV, V, VI. **Advanced.** Supplementing I, II, III by greater detail in experimental study. [Two lectures or recitations and four laboratory hours a week throughout the year. Credit, three term hours.]

VII, VIII, IX. **Theoretical.** Lectures upon mechanics, hydrodynamics, elasticity, capillarity, kinetic theory, heat, conduction, wave motion, sound, light, electricity, and magnetism. [Three times a week throughout the year. Prérequisites, VI, and Mathematics IX.]

X, XI, XII. **Physical Measurements.** Advanced experimen-

tal work. Exact determination of some of the physical constants. Problems involving accurate measurements and mathematical analysis. [Credit to be determined in each case.]

XIII, XIV, XV. **Theory of Light.** Lectures upon the wave theory of light, diffraction, interference, polarization, etc. [Three times a week throughout the year. Prerequisites, VI, and Mathematics IX.]

BIOLOGY.

PROFESSOR FOSTER AND ASSISTANT PROFESSORS KINCAID AND STARKS.

As introductory to the other subjects in botany and zoology, all students are advised to take subjects I, II, and III in botany, and I, II, and III in zoology. These may conveniently be taken at the same time, so that at the end of a year the student will have completed sufficient work to enable him to take up more special work in either line; or, if the student desires, he may finish the subjects in zoology (or botany) the first year, taking the subjects in botany (or zoology) the second year.

Students desiring to make a specialty of biology should plan to take these subjects in their freshman or sophomore year. They may be taken, however, to good advantage at any time by the student who wants only a general course in biology.

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

GENERAL BIOLOGY.

SUBJECT.

I. **Evidences and Factors of Organic Evolution.** Illustrated lectures dealing with the subject from the standpoints of paleontology, comparative anatomy, classification, and distribution. No technical knowledge of biology will be required and the purpose of the course will be 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; winter term.]

PROFESSORS FOSTER, LANDES, AND COLEGROVE, ASSISTANT PROFESSORS KINCAID, STARKS, AND OTHERS.

BOTANY.

SUBJECTS.

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

PROFESSOR FOSTER.

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

PROFESSOR FOSTER.

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

VI. **Plant Physiology.** General physiology of the plant in its relation to environment. Problems in nutrition, growth, and irritability. Lectures and laboratory work. [Spring term. Credit, five term hours.]

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

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

PROFESSOR FOSTER.

IX. **Investigation in Cell Structure and Physiology.** Research work. [To be taken only by permission; spring term; credit to be arranged.]

PROFESSOR FOSTER.

X. **Reproduction and Embryology of Spermophytes.** [Not given in 1900–1901.]

XI, XII. **Morphology of Spermophytes.** A study of the life history of a spermophyte. [Not given in 1900–1901.]

XIII. **History of Botany.** Biography; lectures on the development of theories and problems in the science of botany. [Once a week; spring term.]

PROFESSOR FOSTER.

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

PROFESSOR FOSTER.

XV, XVI, XVII. **Forestry.** History and progress of forestry as a science; sylva culture and uses of trees; problems presented for solution in the Pacific Northwest. Lectures, theses, and field work. [Two times a week throughout the year.]

PROFESSOR MEANY.

ZOOLOGY.

SUBJECTS.

I, II, III. **Elements of Zoology.** An elementary study of the protoplasm of the animal cell. Structure, function, relation to environment, classification. I. Types of invertebrates, including protozoans, coelenterates, and vermes. II. Types of echinoderms, arthropods, and mollusca. III. Other types of invertebrates and vertebrate types. [Lecture, quiz, and five laboratory hours a week throughout the year. Credit, three term hours.]

ASSISTANT PROFESSOR KINCAID.

IV, V. **Comparative Anatomy of Vertebrates.** Work on selected forms, including fishes, amphibians, reptiles, birds, and mammals. Also work on vertebrate embryology is begun. [Fall and winter terms. Credit, five term hours.]

ASSISTANT PROFESSOR KINCAID.

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

VI. **Vertebrate Embryology.** A study of the development of

the chick with preliminary work and comparative work on amblystoma. [Spring term. Credit, five term hours.]

PROFESSOR FOSTER OR ASSISTANT PROFESSOR KINCAID.

VII, VIII, IX. **Physiology.** A study of the vegetative functions of the human body; problems in the anatomy and physiology of circulation; the digestive organs and problems in digestion and foods; the organs of respiration, their function and problems in animal heat. Lectures and laboratory work. [Two lectures and demonstrations a week throughout the year. Credit, three term hours.]

PROFESSOR FOSTER.

X, XI, XII. **Structure and Classification of Insects.** Lectures, field and laboratory work. [May be taken as three hour subjects throughout the year, or by special permission, as research work with credit to be arranged.]

ASSISTANT PROFESSOR KINCAID.

XIII. **Comparative Anatomy of Invertebrates.** [Three times a week; spring term; to be elected only by special permission.]

ASSISTANT PROFESSOR KINCAID.

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

ASSISTANT PROFESSOR KINCAID.

XV. **Ichthyology.** Lectures and research work. [Three hours a week; spring term. Prerequisite, III.]

ASSISTANT PROFESSOR STARKS.

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 ensure absolute thoroughness, and every precaution is taken that the student may be well-grounded. The method

of instruction is in the main by lectures and laboratory 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.

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

IV, V, VI. **Mineralogy.** A study of the principles of crystallography, with laboratory work on wood models and natural crystals; blowpipe analysis, with tests for 35 elements; descriptive and determinative mineralogy. Moses and Parsons's Mineralogy, Crystallography, and Blowpipe Analysis. [Two lectures and four laboratory hours a week throughout the year. Credit, three term hours.]

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

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

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

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

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

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

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

ASTRONOMY.

PROFESSOR RANUM AND MR. MITCHELL.

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

SUBJECTS.

I, II. **General Astronomy.** Outline of fundamental facts in regard to the solar system and the stellar universe. The observ-

atory will be used for illustrative purposes. Young's Elements of Astronomy. [Two times a week; fall and winter terms. Prerequisites, Mathematics I, and Preparatory Physics.]

III. **Practical Astronomy.** Use of instruments and the determination of time, latitude, and longitude. Campbell's Practical Astronomy, 2nd Edition. [Two times a week; spring term. Prerequisites, II, and Mathematics X]

IV.—DIVISION OF MATHEMATICS AND APPLIED SCIENCE.

MATHEMATICS.

PROFESSOR RANUM AND MR. MITCHELL.

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

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

Subjects VII, VIII, IX, which are required of all students in engineering, form the basis for most of the higher practical applications of mathematics to mechanics, physics, and astronomy. They also furnish the starting point for the further study of pure mathematics.

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

The aim in all subjects is to secure a full possession of leading principles and methods rather than to burden the memory with details.

THE COLLEGE OF LIBERAL ARTS.

SUBJECTS.

I. **Plane Trigonometry.** The solution of triangles, use logarithms; solution of problems in heights and distances. [Three times a week; fall term. Prerequisites, elementary algebra, plane and solid geometry.]

PROFESSOR RANUM AND MR. MITCHELL.

II, III. **Higher Algebra.** Binomial theorem; infinite series; permutations and combinations; probabilities; complex numbers; and related subjects. [Three times a week; winter and spring terms. Prerequisite, I.]

PROFESSOR RANUM AND MR. MITCHELL.

IV, V, VI. **Solid Geometry.** Milne's Solid Geometry. [Two times a week throughout the year. Supplementary subjects to I, II, III.]

MR. MITCHELL.

VII. **Analytic Geometry.** Conic sections, the general equation of the second degree. Text-book, Tanner and Allen's Analytic Geometry. [Five times a week; fall term. Prerequisite, III.]

PROFESSOR RANUM.

VIII, IX. **Calculus.** Elementary course in differential and integral calculus, with applications to geometry and mechanics Text-books, MacMahon and Snyder's Differential Calculus, Murray's Integral Calculus. [Five times a week; winter and spring terms. Prerequisite, VII.]

PROFESSOR RANUM.

X. **Spherical Trigonometry.** Solution of spherical triangles and applications to astronomy and navigation. [Once a week; winter term. Prerequisite, I.]

PROFESSOR RANUM.

The following subjects will be given by Professor Ranum every two or three years, if a sufficient number of students elect them.

XI. **Advanced Calculus.** [Three times a week; fall term. Prerequisites, VI and IX.]

XII, XIII. **Differential Equations.** Text-book, Murray's Differential Equations. [Three times a week; winter and spring terms. Prerequisites, VI and IX.]

XIV, XV. **Solid Analytic Geometry.** Advanced course. Text-book, C. Smith's Solid Analytic Geometry. [Two times a week; fall and winter terms. Prerequisites, VI and IX.]

XVI. **Least Squares.** Theory of errors of observation and their adjustment. [Three times a week; spring term. Prerequisites, VI and IX.]

XVII, XVIII, XIX. **Projective Geometry.** Text-book, Reye's Geometrie der Lage. [Two times a week throughout the year. Prerequisite, VII.]

XX, XXI, XXII. **Theory of Functions.** [Two times a week throughout the year. Prerequisites, VI and IX.]

XXIII, XXIV, XXV. **Modern Analytic Geometry.** Trilinear coordinates, homogeneous equations, duality, linear transformations. Text-book, Scott's Modern Analytic Geometry. [Two times a week throughout the year. Prerequisites, VI and IX.]

CIVIL ENGINEERING.

PROFESSOR FULLER, ASSISTED BY SPECIAL LECTURERS.

The aim in this department is to impart training that will prepare the student for immediate usefulness in field and office. While the subjects offered have been arranged primarily for those pursuing one of the courses of the College of Engineering or of the School of Mines, yet they are all open to any student of the University prepared to take them.

DRAWING.

The work in drawing begins with instruction in the use of instruments and practice in linear drawing. Drawings to scale, of geometric forms are made in isometric, cabinet, and orthographic projections from printed descriptions, thus giving the student early practice in working from specifications. In the elementary machine drawing, freehand sketches are made of parts of machinery, from which accurate working drawings are constructed. Special attention is given to lettering. Accurate constructions are made of Roman and Gothic letters and numerals. Due regard is given to proper proportioning and spacing. Freehand lettering

is taken up with a view of giving the student a ready command of a practical alphabet for working drawings. Topographic drawing includes an understanding of the conventional signs universally used and practice in the representation of the earth's surface with both pen and brush.

SUBJECTS.

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

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

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

DESCRIPTIVE GEOMETRY.

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

SUBJECTS.

I, II, III. **Descriptive Geometry.** Shades, shadows, and linear perspective. [Credit, two term hours; throughout the year. Prerequisite, Drawing II, and Mathematics III. At present given only alternate years.]

SURVEYING.

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

SUBJECTS.

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

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

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

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

RAILROADS.

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

SUBJECTS.

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

MECHANICS.

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

SUBJECTS.

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

HYDRAULICS.

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

SUBJECTS.

I, II, III. **Hydraulics.** Theoretic hydraulics. Hydraulic motors and experimental hydraulics. Water supply; irrigation; sewage disposal. [Credit, four term hours; throughout the year. Prerequisite, Mechanics III]

ROOFS AND BRIDGES.

The theoretic treatment of framed structures is taught by lectures and recitations. Stresses in simple trusses are computed by analytic and graphic methods.

SUBJECTS.

I, II, III. **Stresses in Simple Trusses.** Designs with working drawings, bills of material, and detailed estimate of cost of a roof truss and a pin connected bridge are made by each student. [Credit, three term hours; throughout the year. Prerequisites, Descriptive Geometry III, and Mechanics III.]

MASONRY CONSTRUCTION.

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

SUBJECT.

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

ELECTRICAL ENGINEERING.

PROFESSOR DOUBT AND MR. KELLY.

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

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

The shop is supplied with power by electric motors connected with the 500 volt circuit of the University power plant. Additions are being made to the equipment. The laboratory is now supplied with standards for measuring electromotive force current, resistance, capacity, self-induction, and candle power. A Lummer-Brodhun photometer with standard lamp in a well ventilated dark room gives excellent facilities for tests of arc and incandescent lamps.

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

SUBJECTS.

I, II, III. **Industrial Electricity.** Outline of the industrial uses of electricity. Ohm's law, methods, and calculation of wiring. [One lecture a week throughout the year. Prerequisites, Physics III and VI.]

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

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

X, XI, XII. **Dynamo Electric Machinery and the Magnetic Circuit.** Theory of electro-magnets and continuous current dynamos and motors with methods of testing. [Two lectures a week throughout the year. Credit, two term hours. Prerequisites, Physics III and VI, and Calculus.]

XIII, XIV, XV. **Electrical Laboratory.** Dynamo testing, measurement of electromotive force, conductivity, insulation,

capacity, calibration of ammeters, voltmeters, and wattmeters, operation of dynamos and motors, magnetization, characteristic curves of dynamos. Tests of batteries. [Six laboratory hours a week. Credit, two term hours. Preceded or accompanied by subjects X, XI, XII.]

XVI, XVII, XVIII. **Electrical Design.** Problems in designing switches, electro-magnets, and mechanisms. A complete working drawing of some constant current dynamo to be made. [Six hours a week throughout the year. Credit, two term hours. Not given in 1900–1901.]

XIX, XX, XXI. **Alternating Currents.** Alternating current machinery. The consideration of the practical designs of generators, transformers, and motors; the measurement, control, and use of alternating current. [Two lectures a week throughout the year. Prerequisite, I to IX, inclusive. Two term hours, credit.]

XXII, XXIII. **Steam Engineering.** Study of types of boilers and engines; steam pumps, condensers, and heaters that are used in the application of steam power. [Three lectures a week; fall and winter terms. Prerequisites, Physics III and VI, and Calculus.]

XXIV. **Electro-Chemistry.** Primary and secondary batteries, their construction, working, and use; electro-metallurgy, electrotyping, and electro-plating. [Three lectures a week; spring term.]

XXV. **Telegraphs and Telephones.** Theory of telephones and telephone systems, marine telegraphy, multiplex telegraphy, [Two lectures a week; spring term.]

MINING ENGINEERING.

PROFESSORS LANDES AND LYON, ASSISTED BY HON. FRED RICE ROWELL AND OTHER SPECIAL LECTURERS.

The object of the instruction given in this department is to supplement the work of other departments, to give general information, and to afford a complete preliminary training of a practical as well as theoretical nature to students who desire to pursue the profession of mining.

practical work, and lectures on the chemical relations involved. [One lecture and six laboratory hours a week; winter and spring terms.]

PROFESSOR BYERS.

V. DIVISION OF PHYSICAL AND MILITARY TRAINING.

PHYSICAL CULTURE AND HYGIENE.

PROFESSOR VANDER VEER.

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

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

In order to graduate, each student must have at least twelve credits in either the department of military science and tactics or the department of physical culture and hygiene, in addition to the 180 credits required in other departments.

SUBJECTS.

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

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

MILITARY SCIENCE AND TACTICS.

PROFESSOR GOULD.

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

All male undergraduate students not physically disqualified are required to enroll themselves in the department of military science and tactics during the first two years of their University residence. Students physically disqualified are expected to place themselves under the care of the department of physical culture and hygiene.

In order to graduate, each student must have at least twelve credits in either the department of military science and tactics or the department of physical culture and hygiene.

Preparatory students can register in the department of military science and tactics only by special permission.

The following regulations govern the department:

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

Second: It shall, in all military matters, be under the instruction and discipline of a graduate of the United States Military Academy, as Commandant, and such cadet officers as may be nominated by him and approved by the President of the University.

Third: All officers and non-commissioned officers of the battalion shall provide themselves with the prescribed text-books, and attend recitations and lectures on military science at such times as the Commandant may order.

Fourth: The hours for drill and instruction and for military ceremonies shall be at such times as the Commandant may order, and as will not interfere with recitations in other University studies.

No army officers can be detailed by the War Department until the war closes. During 1899-1900 the work was conducted by Cadet Major William V. Rhinehart, under the supervision of Lieut. Col. James E. Gould, N. G. W.

Fifth: Attention is called to the following specifications of uniform dress:

(*a*) Coat—Regulation West Point fatigue coat, gray, single-breasted, buttoned down the front with five black horn buttons, concealed with a fly; the edges, bottom, and collar of coat faced with one and one-quarter inch black mohair braid, the back seams from the bottom of the coat to within two inches of the shoulder, covered with the same braid; the sides or hips to have two rows of braid extending six inches from bottom, finished at top with points.

(*b*) Trousers of same color as coat, with stripe of black cloth one and one-quarter to one and one-half inches wide, welted at the edges.

(*c*) Cap of dark blue cloth, United States cadet pattern; ornament, a gold embroidered wreath encircling the letters U. of W. in silver.

(*d*) Gloves, white Berlin.

(*e*) Chevrons, for officers and non-commissioned officers, of black cloth, indicating rank as follows: Captain, four bars; adjutant, three bars and an arc; quartermaster, three bars and a tie; lieutenant, three bars; sergeant major, two bars and an arc; quartermaster sergeant, two bars and a tie; first sergeant, two bars and a lozenge; color sergeant, two bars and a star; sergeant, two bars —all foregoing, points up, on upper arm; corporals, two bars, points up, on lower arm. Students must provide themselves with this uniform within thirty days after their enrollment at the University, unless this time be extended by the President.

Sixth: The Commandant shall keep a regular roll, on which attendance, demeanor, and proficiency shall be marked, according to merit and demerit, and made the basis of military honor and promotion.

Seventh: Cadets, during the hours assigned to them for military exercises and recitations, shall promptly and fully obey the orders of their officers; the officers and privates shall deport themselves toward each other as gentlemen and with military precision and respect.

Eighth: An absence from drill must be accounted for before the next drill. If the excuse is not satisfactory, the students may be

required by the Commandant to make up the omitted drill by drilling under special orders.

Ninth: Appointments of cadet officers and non-commissioned officers of the battalion are made solely upon merit, and no officer or non-commissioned officer will be continued in the line of promotion after failing to make satisfactory progress or showing lack of appreciation of the honor and responsibility of his office.

Tenth: All general orders published from headquarters will be posted on the University bulletin board.

Eleventh: The University holds the cadet accountable for injury to or loss of government property while in his possession.

Twelfth: The soldierly appearance and efficacy of the cadet depend upon his effort and zeal, not only during the specified hours of drill, but also at all times and places. As it is impracticable within the few hours allotted to military exercises to eradicate serious defects, he should bear in mind his deficiency and faithfully endeavor to conquer it—to develop a strong, manly physique and acquire a dignified soldierly bearing. He should be scrupulously particular as to his appearance and deportment in uniform, always wearing the blouse buttoned throughout and preserving an erect carriage. To wear part uniform with part of citizen's dress is unmilitary and unsightly to the eye of the soldier.

SUBJECTS.

I, II, III. **Practical and Theoretical.** Infantry exercises in the school of the soldier, company, and battalion; extended order movements, target practice, duties of a sentinel, and ceremonies. Lectures and recitations on the drill regulations of the United States Army, the preparation of the usual reports and returns pertaining to a company and battalion, and the supply and discipline of the company. [Drill two hours a week, lectures, one hour a week throughout the year. Credit, two term hours.]

IV, V, VI. **Advanced.** Minor field operations, formations for advance guards, rear guards, and outposts. Military signaling with flag, torch, and heliograph. Castrametation. Lectures on military law, field works, preparation for war, the staff, tactics of the three arms, grand tactics, logistics, strategy, military history, material of war and engineering. [Drill two hours a week, lec-

tures one hour a week, throughout the year. Credit, two term hours.]

On the completion of the military work by each class, the professor of military science and tactics shall report to the Adjutant General of the Army the names of such students as have shown special aptitude for military service, and furnish a copy thereof to the adjutant general of the state for his information. The names of the three most distinguished students in military science and tactics at each college shall, when graduated, be inserted on the United States Army Register and published in general orders.

ORGANIZATION OF THE BATTALION FOR 1899-1900.

Commandant, James E. Gould.
Cadet Major, W. V. Reinhart.

STAFF AND NON-COMMISSIONED STAFF.

First Lieutenant and Adjutant, Chas. E. Gaches.
First Lieutenant and Quartermaster, C. H. Reeves.
Sergeant-Major, G. G. Fadden.

COMPANY A.

Captain, C. A. Lindbery.
First Lieutenant, R. W. Fletcher.
Second Lieutenant, W. H. Corson.
First Sergeant, L. D. Ryan.

SERGEANTS.

C. I. Parker, W. G. Ames,
E. A. Duffy, H. A. Hanson.

CORPORALS.

T. L. Richards, L. LeSourd,
F. G. McKeown, F. H. Sherwood.

COMPANY B.

Captain, G. A. Minkler.
First Lieutenant, P. C. Harper.
Second Lieutenant, G. E. Dodson.
First Sergeant, R. W. Huntoon.

SERGEANTS.

S. H. Treen, W. W. Blain,
K. A. McPherson, E. E. McCammon.

CORPORALS.

F. J. Ceis, D. McDonald,
W. McCrory, H. G. Cosgrove.

THE PREPARATORY SCHOOL.

THE PREPARATORY SCHOOL.

GEORGE E. ST. JOHN, A. M ,
PRINCIPAL.

PURPOSE.

From a recent report of the State Superintendent of Public Instruction, supplemented by information from other authorities, it is ascertained that only ten high schools of the state give complete preparation for college and nearly three-fourths of the school districts cannot carry on work beyond the eighth grade. Nine counties contain no school whose course extends farther than the grammar grades.

It is evident from this, that unless the Preparatory School is maintained by the State University, a gap must for some time exist between it and the rest of the system of public education. In order that as many young people as possible may enjoy the advantages of higher education, the University will bridge this gap with its Preparatory School as long as may be necessary.

As the income from the school tax is increased and the courses maintained by the common schools are extended, one year after another of the course of the Preparatory School will be dropped.

INSTRUCTION AND GOVERNMENT.

The work of the Preparatory School is under the supervision of the Dean of the College of Liberal Arts, as Prin-

cipal,* assisted by the Dean of the College of Engineering as Vice Principal. Instruction is given by tutors and various members of the University faculty as the circumstances require.

The methods of government in the Preparatory School are stricter than in the colleges of the University. Thus young students obtain all the advantages of contact with trained specialists without losing the discipline best adapted to secondary schools.

ADMISSION.

Students who graduate from schools accredited for twelve grades may enter the freshman year of the college department upon presentation of their diplomas; those from schools accredited for eleven, ten, nine, or eight grades may complete their entrance credits in the Preparatory School.

All schools satisfactorily carrying out the state course of study will be accredited in the subjects which their course covers.

Students will, however, not be admitted to the Preparatory School, except by permission of the School Superintendent of their district, unless they have completed all the work offered by the schools in their district.

SUBJECTS OFFERED.

The following subjects are offered in the Preparatory School of the University. Students are required to consult with the Principal of the school before making out their course.

* During 1899-1900 the Dean has been relieved of this duty by Professor St John.

ENGLISH COMPOSITION AND RHETORIC.

(*a*) **Composition.** Buebler's Practical Exercises in English. [Two times a week throughout the year.]

(*b*) **Rhetoric.** Scott and Denney's Composition-Rhetoric. Constant work in the art of composition is carried on. [Three times a week throughout the year.]

ENGLISH LITERATURE.

(*a*) **English Literature.** Pancoast's Introduction to English Literature. The study of the text is accompanied by the reading of Pope's Homer's Iliad, Books I, VI, XXII, and XXIV; The Sir Roger de Coverly Papers; Silas Marner; Vicar of Wakefield; Merchant of Venice; and the Rime of the Ancient Mariner. There is also made a close study of Shakespeare's Macbeth and Milton's L'Allegro, Il Penseroso, Comus, and Lycidas. [Five times a week, fall and winter terms.]

(*b*) **American Literature.** Pancoast's Introduction to American Literature. This is accompanied by the reading of Tennyson's Princess, Scott's Ivanhoe, and Cooper's Last of the Mohicans; and the close study of Burke's Speech on Conciliation with America, and Macaulay's Essays on Milton and Addison. [Five times a week, spring term.]

MATHEMATICS.

(*a*) **Algebra.** Fisher and Schwatt's Elements of Algebra. Elementary algebra through quadratic equations, exponents, and radicals. [Four terms, five times a week.]

(*b*) **Plane Geometry.** Milne's Plane Geometry. Original demonstrations and solutions by the student are essential features. [Five times a week, fall and winter terms.]

(*c*) **Solid Geometry.** Milne's Plane and Solid Geometry. [Two times a week throughout the year.]

HISTORY.

(*a*) **American** Montgomery's Leading Facts of American History is used as text. Collateral readings and research on assigned topics are required. [Five times a week, spring term.]

(*b*) **English.** Montgomery's Leading Facts of English History as text, with required readings and reports from other sources. [Three times a week, fall and winter terms.]

(*c*) **General.** Myers's Mediæval and Modern History. [Five times a week throughout the year.]

(*d*) **Ancient.** Myers's Ancient History. [Two times a week throughout the year.]

CIVICS.

Fiske's Civil Government in the United States. Lectures, recitations, and practical illustrations. [Three times a week, fall term.]

BIOLOGY.

(*a*) **General.** An elementary study of animal and plant forms, illustrating the principles of biology. [One lecture and four laboratory hours a week throughout the year.]

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

(*c*) **Physiology.** An elementary study of the human body, including the study of the special senses, in addition to that of the vegetative functions.

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

PHYSICS.

Lectures, recitations, and laboratory work. The subject must be preceded by algebra to quadratic equations, and by plane geometry. [Three lectures and four laboratory hours a week throughout the year.]

LATIN.

(*a*) **Beginning.** Collar and Daniell's First Latin Book. Drill in Latin inflections and constructions. Exercises in translating English into Latin. [Five times a week throughout the year.]

(*b*) **Cæsar and Cicero.** Harper and Tolman's Cæsar; Allen and Greenough's Cicero; Latin Prose Composition. [Five times a week throughout the year.]

(*c*) **Vergil.** Greenough and Kittredge's Vergil; Latin Prose Composition; Review of Cicero. [Five times a week throughout the year.]

GREEK.

(*a*) **Beginning.** Graves and Hawes's A First Book in Greek. Drill in Greek inflections and constructions. Exercises in translating English into Greek. Xenophon's Anabasis, book I. [Three times a week throughout the year.]

(*b*) **Xenophon, Homer.** Goodwin's Revised Edition of Xenophon's Anabasis, books I–III; Seymour's Iliad of Homer, books I–III. [Three times a week throughout the year.]

(*c*) **Composition, Sight Reading.** Woodruff's Greek Prose Composition; Sight Reading from Xenophon's Anabasis, IV–VII; and from Homer's Iliad, IV–VI. [Three times a week throughout the year.]

GERMAN.

(*a*) **Beginning.** Outline of grammar, practice in pronunciation, composition, 150 pages of easy prose, Schiller's Wilhelm Tell. [Three times a week throughout the year.]

(*b*) **Supplementary.** Covering work along the same lines as (*a*). [Two times a week throughout the year.]

FRENCH.

(*a*) **Beginning.** Outline of essentials in French grammar; exercises in pronunciation; translations from French into English and English into French; reading of easy prose selections, and later of moderately difficult selections from representative writers.

(*b*) **Supplementary.** Dictation and composition; reading at sight; practice in pronunciation. [Two times a week throughout the year.]

CHEMISTRY.

Experimental lectures; laboratory work on illustrative experiments, leading to qualitative analysis in the spring term. [Two lectures and four laboratory hours a week throughout the year.]

PHYSICAL GEOGRAPHY.

Recitations, lectures, and some field work. Lantern slides are largely used to illustrate the text, Davis's Physical Geography. [Five times a week; fall and winter terms.]

PREPARATORY LAW COURSE.

Students who intend to enter the School of Law of the University of Washington, or a similar institution, are advised to take a complete course in the College of Liberal Arts before entering. If this is impossible, the following course, which includes the most essential subjects, is open to students who have finished the eighth grade of an accredited school.

Those who complete the work here outlined may enter the School of Law without further examination.

Students must be at least eighteen years of age to enter upon this course.

FIRST YEAR.

Fall Term.	*Winter Term.*	*Spring Term.*
Composit'n and Rhetoric.	Composit'n and Rhetoric.	Composit'n and Rhetoric.
Beginning Latin.	Beginning Latin.	Cæsar.
Civics.	Cæsar.	Latin Composition.
American History.	American History.	American History.

SECOND YEAR.

English Literature.	English Literature.	American Literature.
Cæsar and Cicero.	Cicero and Latin Composition.	Cicero and Latin Composition.
English History.	English History.	English History.
French or German.	French or German.	French or German.

PREPARATORY MEDICAL COURSE.

The best preparation for students intending to enter the medical profession is the completion of a course in the College of Liberal Arts, with chemistry and biology as the principal studies. In the case of those who are not able to afford the time for this, a special course of two years as outlined below may be pursued.

Several medical schools will admit without examination those who complete this course.

Students are required to be eighteen years of age before taking the course.

FIRST YEAR.

Fall Term.	*Winter Term.*	*Spring Term.*
Composit'n and Rhetoric. Beginning Latin. Civics. Botany and Zoology.	Composit'n and Rhetoric. Beginning Latin. Cæsar. Botany and Zoology.	Composit'n and Rhetoric. Cæsar. Physiology. Botany and Zoology.

SECOND YEAR.

Cæsar and Cicero. Chemistry. Physiology. French or German.	Cicero and Latin Composition. Chemistry. Physiology. French or German.	Cicero and Latin Composition. Chemical Laboratory. Physiology. French or German.

THE COMMENCEMENT OF 1899,
THE REGISTER OF STUDENTS FOR 1899-1900,
AND
THE ALUMNI ASSOCIATION.

COMMENCEMENT, JUNE 1, 1899.

DEGREES IN COURSE.*

MASTERS OF ARTS.

Thomas Fairchild Brownscombe, A. B.
Jinta Yamaguchi, A. B.
Eleanor Varnes, A. B.

MASTER OF SCIENCE.

Edmond Stephen Meany, B. S.

BACHELORS OF ARTS.

Jessie Blount Allen.
Arthur Condict Ballard.
Anna Criswell Boyd.
Blanche Brooks.
Ina Letitia Carpenter.
Harry Canby Coffman.
Ross Everett Chesnut.
Jackson Blakely Corbet, Jr.
Arthur Clifton Crookall.
Luella Mary Dean.
Charles Arthur Fowler.
Elizabethe Helan Frye.
Frank Price Giles.
Mae Rose Goodman.
Jacob Louis Gottstein.
Walter Stanley Griswold.
Thomas McCheyne Gunn.
Henry Harriman.
Caroline Elizabeth Horton.
Louise Anna Iffland.
Eunice Viola Karr.
Clarence Melrose Larson.
Ethel May Leake.
Verna Lulu Leeman.
Elizabeth Metcalf.
Don Henry Palmer.
Olivia Cutler Peck.
Agnes Lillian Reagh.
Henry Lindley Reese.
Harry Lowther Richardson.
Emma Belle Roll.
Audrey Blanche Souder.
Theresa Schmid.
Annie Alice Sloan.
Permilla Thomas.
Lucius Otto Veser.
Mable Ward.
Sarah Leonard Waughop.
Cyrus Avery Whipple.
Sara Augusta Williams.
Anne Caroline Winters.
Jinta Yamaguchi.

*No honorary degrees are granted by the University of Washington.

BACHELORS OF SCIENCE.

Albert Morehouse Anderson.
Walter Roy Coffman (*cum laude*).
David Kelly.
Trevor Charles Digby Kincaid.
Isadore Reuben Singerman.
Burke Smith.
William Garfield Turnbull.
Arthur Swarts Wilson.

BACHELORS OF PEDAGOGY.

Jessie Blount Allen.
Anna Crisswell Boyd.
Blanche Brooks.
Thomas Fairchild Brownscombe.
Ina Letitia Carpenter.
Luella Mary Dean.
Elizabethe Helan Frye.
Mae Rose Goodman.
Louise Anna Iffland.
Eunice Viola Karr.
Clarence Melrose Larson.
Ethel May Leake.
Verna Lulu Leeman.
Elizabeth Metcalf.
Don Henry Palmer.
Olivia Cutler Peck.
Henry Lindley Reese.
Harry Lowther Richardson.
Emma Belle Roll.
Anna Alice Sloan.
Permilla Thomas.
Mable Ward.
Sarah Leonard Waughop.
Cyrus Avery Whipple.
Anna Caroline Winters.

GRADUATE IN PHARMACY.

Walter Roy Coffman.

THE REGISTER OF STUDENTS, 1899-1900.

GRADUATE SCHOOL.

NAME.	RESIDENCE.
Brintnall, Burgess W., A. M.	Olympia.
Carpenter, Ina L., A. B.	Buckley.
Christensen, Martin A., A. B.	Seattle.
Coffman, Harry C., A. B.	Chehalis.
Currier, Susan L., A. B.	La Conner.
Dean, Luella M., A. B.	Seattle.
Enyart, Henrietta, A. B.	Ballard.
Fowler, Charles A., A. B.	Centralia.
Frazer, Frank D., A. M.	Seattle.
Frye, Elizabethe H., A. B.	Seattle.
Giles, Frank P., A. B.	Fremont.
Giles, Harry F., A. M.	Ballard.
Gould, James E., Ph. B.	Port Townsend.
Gunn, Thomas M., A. B.	Brooklyn.
Jackol, John, B. S.	Everett.
Kelly, David, B. S.	Seattle.
Kincaid, Trevor C. D., B. S.	Olympia.
Larson, Clarence M., A. B.	Friday Harbor.
Lovering, Lydia E., A. B.	Seattle.
Reese, Henry L., A. B.	Olympia.
Richardson, Harry L., A. B.	New Whatcom.
St. John, George E., A. B.	North Yakima.
Waughop, Sara L., A. B.	Everett.
Whipple, Cyrus A., A. B.	Eugene, Ore.
Winter, Frank H., A. B.	Belvidere, Neb.

COLLEGE OF LIBERAL ARTS.

SENIOR CLASS.

NAME.	RESIDENCE.
Allen, Ella B.	Ravenna.
Baker, Harold J. M.	Port Townsend.
Barklay, James	Asotin.
Barlow, Jessie	Tacoma.
Barlow, T. Marvin	New Whatcom.
Case, Kathryn E	Brooklyn.
Clark, Myra B.	Seattle.
Crueger, Emma E.	Snohomish.
Dougan, Ella R	Seattle.
Edmunds, Thomas F.	Ballard.
Fuller, Lulu.	Seattle.
Gardner, Nathaniel L.	Coupeville.
Gillette, William W.	Spokane.
Glasgow, Grace E.	Seattle.
Hill, Arthur G.	Seattle.
Hill, Climie E.	Seattle.
Hill, Stirling B.	Seattle.
Korstad, Hans M.	Fairfield.
Levy, Aubrey	Seattle.
Lough, W. Thomas	Fremont.
Meredith, William J.	Brooklyn.
Mitchell, Annie A.	Olympia.
Mitchell, Thomas W.	New Whatcom.
Morrison, Walter F.	Spokane.
Schoder, Ernest W.	Seattle.
Starks, Edwin C.	Brooklyn.
Starks, Chloe L.	Brooklyn.
Storey, John C.	Fremont.
Sylvester, Frances C.	Olympia.
Weretnikove, Bella	Seattle.
White, Ethel B.	Rossland, B.C.

JUNIOR CLASS.

Bethel, Sylvester	Olympia.

NAME.	RESIDENCE.
Blodgett, Charlotte A.	Seattle.
Boetzkes, Ottilie G.	New York, N. Y.
Caulkins, Glen W.	New Whatcom.
Delaney, Alma J.	Juneau, Alaska.
Evans, Goldie I.	Snohomish.
Gaches, Charles E.	La Conner.
Hopkins, Paul	Ballard.
Johnson, Ralph M.	Acme.
Kincaid, Zoe R.	Olympia.
Landes, Charles	Carroll, Ind.
Lane, Alton W.	Seattle.
Le Sourd, Luther	Coupeville.
Lindbery, Charles A.	New Whatcom.
McCann, Charles	Everett.
McDonald, Clarence	Sprague.
Millett, Daniel A.	Chehalis.
Morford, Carl E.	Seattle.
Page, George R.	Seattle.
Phillips, Horace P.	Seattle.
Prosch, Edith G.	Seattle.
Reeves, Carl H.	Columbia.
Robertson, Guy H.	Brooklyn.
Ruddy, Charles A.	Everett.
Thayer, L. Elanson	Everett.
Thompson, May	Seattle.
Tiedeman, Walter H.	Ballard.
Trout, Glenn H.	Garfield.
Vail, Arthur C.	Centralia.
Wilgus, Thomas P.	North Yakima.
Wright, Edgar J.	Fairhaven.

SOPHOMORE CLASS.

Ames, Wolcott	Fairhaven.
Berkman, Herbert A.	New Whatcom.
Blain, William W.	Seattle.
Boyce, Ernest P.	Portland, Ore.
Brown, Ruby L.	Everett.
Ceis, Fred J	Seattle.

NAME.	RESIDENCE.
Chesnut, Fred	Tacoma.
Corbet, Galbraith H	Seattle.
Corson, Willis H.	Issaquah.
Cosgrove, Howard G.	Pomeroy.
Crueger, Minnie	Snohomish.
Dodson, George E.	Fairhaven.
Fadden, Garfield	New Whatcom.
Fleischer, Amanda F.	Seattle.
Frink, Dorothy M.	Seattle.
Gardiner, Alice E.	Everett.
Gordon, Oliver M.	Spokane.
Grantham, Winfred A.	Fremont.
Greene, Grace E.	Seattle.
Griggs, Stephen E	Lynden.
Griggs, Urbane S.	Lynden.
Habenicht, Kuno A.	Braunschweig, Ger.
Harper, Paul C.	Seattle.
Henriksen, Martin E.	Haudrup, Den.
Herren, Elizabeth M.	Seattle.
Hubert, Anna	Seattle.
Huntoon, Richard W.	Fairhaven.
Johnson, Carl A.	Ballard.
Knight, Henry G.	Leland.
Laube, William T.	New Whatcom.
Lynch, Mable A.	Seattle.
Madsen, Magda	Fremont.
McDonnell, E. Pearl	Brooklyn.
McGlinn, Garfield	La Conner.
McIntyre, Lucile	Seattle.
McPherson, Kenneth A	Wasco, Ore.
Megrath, Winifred H.	Seattle.
Minkler, Garfield A.	Lyman.
Rathbun, Chauncey B.	Olympia.
Reinhart, William	Olympia.
Remington, Alton D.	Seattle.
Robertson, Edna E.	Olympia.
Ryan, Lewis D.	Sumner.

NAME.	RESIDENCE.
Stejer, Francis	Chehalis.
Sumner, Emily W.	Everett.
Winsor, Blanche L.	Ballard.

FRESHMAN CLASS.

Alexander, John W.	Chehalis.
Allen, Riley W.	Ravenna.
Barnes, Charles G.	Goldendale.
Becker, Meta V.	Fremont.
Bethel, Walter C.	Olympia.
Bovey, J. Elmer.	Sedro-Woolley.
Brickey, Willard L.	Avon.
Briggs, Clarence	Seattle.
Brightman, Frank E.	Fairhaven.
Brintnall, Stella A.	Olympia.
Caithness, Jeanne F.	Everett.
Crueger, Otta B.	Snohomish.
Dean, J. Foster.	New Whatcom.
Dodson, Ava E.	Fairhaven.
Edmunds, James A.	Ballard.
Elliott, William E.	Portland, Ore.
Ellsbury, George C.	Centralia.
Eshelman, Carl D.	Tacoma.
Esmond, Julia F.	Montesano.
Fallis, Louis D.	South Seattle.
Foglesong, William A.	Centralia.
Giles, Alfred R.	Fremont.
Graff, Bjarne H.	Seattle.
Gruwell, Maude W.	South Bend.
Hall, Leon.	Snohomish.
Hansen, Howard A.	Christopher.
Jackson, Jesse.	Green Lake.
Joyce, Emma M.	Seattle.
Kellogg, James Y. C.	Seattle.
Knisell, Juanita M.	Brooklyn.
Lindstrom, Ella.	Fairhaven.
Littlefield, Percy.	Visalia, Cal.

NAME.	RESIDENCE.
McDonald, Donald D	Green Lake.
McDonnell, Elizabeth T	Brooklyn.
McKinnon, Charles M	Ross.
Messeger, Cassandra	Olympia.
Mooers, Benjamin C	Seattle.
Nichols, Guy F	Fairhaven.
Reeves, Sara C	Columbia.
Richards, Truman L	Moorefield, Neb.
Rowell, Ralph R	So. Thomaston, Me.
Schricker, Hilda F	La Conner.
Seymour, Alphonso S	Chehalis.
Sherwood, Frank H	Everett.
Stadelmann, Pearllita C	New Whatcom.
Stevens, Edwin B	Olympia.
Stewart, Jessie	Fremont.
Tucker, Edith A	Seattle.
Tucker, Lena L	Seattle.
Wallace, Bruce W	Pendleton, Ore.
Wiley, Linnie	Ballard.
Williams, Frederic B	Victoria, B. C.
Wittler, Milton F	Seattle.
Woody, William W	Winlock.
Wright, Merrill A	Bonner's Ferry, Ida

UNCLASSIFIED STUDENTS.

Abrams, Mildred M	Seattle.
Baird, Annetta M.	Seattle.
Beattie, Jennie	Brooklyn.
Brown, Lottie A	West Seattle.
Bundy, Carolyn L	Brooklyn.
Cadien, Gertrude A	Oakland, Cal.
Cathcart, Elizabeth M	Cathcart.
Coe, Alice R	Brooklyn.
Colegrove, Belle	Brooklyn.
Combes, Pearl H	Elma.
Corbet, Lucy B	Seattle.
Cowen, Violet	Latona.

NAME.	RESIDENCE.
Davidson, William E.	Dunlap.
Davis, Albert E.	Van Asselt.
Davis, Cleo C.	Brooklyn.
Densmore, J. Worth	Fremont.
Doy, Saikichi	Hiroshima, Japan.
Earl, Edwin F., Jr.	Paxton, Ill.
Edgers, Cora N.	Seattle.
Gardiner, Ralph	Seattle.
Gillett, Adelaide	Hasbrouch, N. Y.
Griswold, Roy	Burton.
Guy, Laura B.	Seattle.
Hall, Mary R.	Seattle.
Hancock, Elizabeth B.	Grand Haven, Mich.
Harlow, Claude A.	Seattle.
Hazzard, Minnie M.	Claquato.
Holdredge, May N.	Brighton Beach.
Johnson, James	Seattle.
Johnson, Jay M. C.	Seattle.
Kincaid, Margaret	Brooklyn.
Lacey, Linie L.	Auburn.
Lough, Jacob W.	Fremont.
MacKay, Ethelyn B.	Seattle.
McCrory, William R.	Seattle.
Miracle, Blanche A.	Seattle.
Moss, Agnes L.	Brooklyn.
Norris, Bertha C.	West Seattle.
Olney, Myrtle	Minneapolis, Minn.
Pettit, Cassius M.	Seattle.
Pratt, Alida G.	Custer.
Robertson, Mildred L.	Brooklyn.
Ronald, Norma V.	Seattle.
Rowell, S. Parker	Seattle.
Saxton, Effie O.	Fern Hill.
Shelton, Mary E.	Seattle.
Shoup, Arthur G.	Sitka, Alaska.
Smith, Tenna I.	Winlock.
Stephens, Adaline A.	Seattle.

NAME.	RESIDENCE.
Stephens, Eva R.	Seattle.
St. John, Elsie F.	Ravenna.
Tinkham, Maude	Yesler.
Tvete, Amanda M.	Seattle.
Underwood, Julia	Brooklyn.
Waite, Jennie E.	Puyallup.
Whitley, Margaret R.	Seattle.
Weed, Nellie	Rainier Beach.
Wilson, Olive	Seattle.
Wiswell, Thomas C.	Brooklyn.

COLLEGE OF ENGINEERING.

JUNIOR CLASS.

NAME.	COURSE.	RESIDENCE.
Baker, Harold J. M.	El.	Port Townsend.
Hill, Stirling B.	Civ.	Seattle.
Hopkins, Robert H.	El.	Ballard.
Johnson, Ralph M.	El.	Acme.
Morford, Carl E.	Civ.	Seattle.

SOPHOMORE CLASS.

Ames, Walcott G.	El.	Fairhaven.
Duffy, Edward A.	El.	Seattle.
Larson, Clarence M.	El.	Friday Harbor.
Lindbery, Chas. A.	El.	New Whatcom.
Reeves, Carl H.	El.	Brooklyn.
Rowell, Stephen P.	El.	Seattle.
Storey, John C.	Civ.	Fremont.
Trout, Glenn H.	Civ.	Garfield.

FRESHMAN CLASS.

Blaine, Edward L., Jr.	El.	Seattle.
Brooks, Edward M.	El.	Fremont.
Breece, A. Otis	El.	Brooklyn.

NAME.	COURSE.	RESIDENCE.
Duckering, William E.	El.	Olympia.
Field, Frank	El.	Snohomish.
Harris, Charles W.	Civ.	Chehalis.
Hawes, Edwin M.	El.	Olympia.
Hitchcock, Roscoe.	Civ.	Ballard.
Jackson, Jesse A.	Civ.	Green Lake.
Rathbun, John C.	El.	Olympia.
Reasoner, Frank M.	Mech.	New Whatcom.
Treen, Shirley M.	Mech.	Seattle.
Weedin, Walter W.	El.	Green Lake.
Wright, Ewart G.	Civ.	Fairhaven.

UNCLASSIFIED STUDENTS.

Anderson, Merton G.	Civ.	Fremont.
Barlow, Tony M.	Civ.	New Whatcom.
Blaker, Percy H.	El.	Sunnydale.
Breece, Enoch E.	Civ.	Brooklyn.
Crandall, Eben H.	El.	La Conner.
Johnson, France D.	Civ.	Sitka, Alaska.
Moss, Fred D.	Mech.	Seattle.
Ober, Richard H.	Civ.	Port Townsend.
Schmidt, Alexander R.	Mech.	Issaquah.
Seymour, Alfred S.	El.	Seattle.
Sherven, Ammund O.	Civ.	Anaconda, Mont.
Waller, Gordon G	Civ.	Seattle.
Ward, Charles C.	Civ.	Seattle.

SCHOOL OF MINES.

SENIOR CLASS.

NAME.	RESIDENCE.
Hill, Climie E.	Seattle.
Schoder, Ernest W.	Seattle.

JUNIOR CLASS.

NAME.	RESIDENCE.
Gaches, Charles E.	La Conner.
Lane, Alton W	Seattle.
Tiedeman, Walter	Ballard.

SOPHOMORE CLASS.

Corbet, Galbraith H. I	Seattle.
Gordon, Oliver M	Spokane.
Harper, Paul C	Seattle.
Ryan, Lewis D	Sumner.

FRESHMAN CLASS.

Gilligan, Edward	New Whatcom.
McCammon, Edward E	Vancouver.
McKeown, Frank J	Mount Vernon.
Parker, I. Curtis	Seattle.
Reid, John L	New Whatcom.
Roblfs, Otto D	Seattle.

UNCLASSIFIED STUDENTS.

Farmin, Earl D	Spokane.
Morehouse, George B	Skagway, Alaska.
Smith, Mark J	Loomis.

STUDENTS IN SHORT COURSE FOR PROSPECTORS.

Campbell, Lawrence R	Brighton Beach.
Carter, Frank W	Santa Monica, Cal.
Crueger, Fred	Snohomish.
Epler, Frank	Seattle.
Grogg, William	Shelbyville, Mo.
Hale, Robert E	Seattle.
McKinley, George	Edinborough.
McMillan, Luella H	Roche Harbor.
McMurray, James W	Port Townsend.
Morgan, Clarence A	Montesano.
Morovitz, Joseph	Bird's View.
Olan, J. Theodore	Dawson, N. W. T.
Perkins, Elmer	Seattle.
Polson, William L	La Conner.

NAME.	RESIDENCE.
Priestly, William J.	Sunnydale.
Robinson, Barton	Atland.
Schnaufer, John F.	Seattle.
Speed, Goodwin	Louisville, Ky.
Tracy, George R.	Seattle.
Warren, John C.	Seattle.
Williams, Ralph	Seattle.

SCHOOL OF PEDAGOGY.

SECOND YEAR.

NAME.	RESIDENCE.
Bennett, Robert J.	Seattle.
Huntoon, Helen M.	Fairhaven.
Knight, Lillian B.	Seattle.
Lawrence, Joseph G.	Columbia.
Leake, Norma A.	Avon.
Lewis, Ella E.	Seattle.
Porter, Alice M.	Seattle.
Skimamura, Matsunosuke	Saitama, Japan.

FIRST YEAR.

Brintnall, Charlotte S.	Olympia.
Chilberg, Mabel	Seattle.
Demond, Alice	Cleveland.
Demond, Ernest	Cleveland.
Farnsworth, Aimee	Seattle.
Gow, Margaret E.	Seattle.
Gow, Ida H.	Seattle.
Gunn, Lena	Index.
Hall, Ivy	Seattle.
Heppenstall, Minerva R.	Colchester, Ill.
Herndon, Verona	Chehalis.
Howard, Sara	Seattle.

NAME.	RESIDENCE.
Johnson, Elma	Ehrlich.
Larimer, Bessie	Seattle.
Ljockel, Ellen C.	Seattle.
Markishtum, H. Thomas	Neah Bay.
Meagher, Ella F.	Snohomish.
Meagher, Maie E.	Snohomish.
Meredith, Ida M	Brooklyn.
Peterson, Sophie D.	Port Townsend.
Reese, Edward B.	Yesler.

UNCLASSIFIED STUDENTS.

Gough, Myrta	South Bend.
McIntyre, Mary	Kent.
Proctor, Helen S	Snohomish.

SCHOOL OF PHARMACY.

FIRST YEAR.

NAME.	RESIDENCE.
Bridenstine, Mathew J.	Ballard.
Craddock, Ida.	Starbuck.
Dawson, John T., M. D.	Toledo, O.
Elder, Floyd	Seattle.
Fetterman, Glen R.	Ellensburg.
Gray, Charles M.	Salt Lake, Utah.
Hadi, Albert M.	Vashon.
Jennings, Helen F.	La Conner.
Kellogg, Sadie	Seattle.
Lutz, Walter A.	New Whatcom.
Pearson, Marion	Starbuck.
Prigmore, George	Pe Ell.
Sanford, Clinton C.	Ellensburg.
Swift, George W.	Coupeville.
Vercoe, Henry	Mt. Vernon.
Wanamaker, Allson T.	Coupeville.

SCHOOL OF LAW.

FIRST YEAR.

NAME.	RESIDENCE.
Austin, William M.	Seattle.
Beals, Walter B.	Fairhaven.
Bell, William S.	Seattle.
Bolster, Nathaniel W.	Seattle.
Brinker, Otis W.	Port Townsend.
Bunch, Alban F.	Seattle.
Carkeek, Vivian M.	Seattle.
Carroll, Othelia G.	Seattle.
Childe, Eugene A.	Seattle.
Cowles, James T.	Olympia.
Davis, Clark D.	Brooklyn.
Duby, E. Forrest	Centralia.
Dwyer, William	Olympia.
Edwards, Marion, A. B.	New Whatcom.
Elwell, Will T.	Snohomish.
French, Walter M., A. B.	Hillsdale, Mich.
Geary, Edward H.	Seattle.
Goodfellow, John A.	Seattle.
Harriman, Henry R., A. B.	Tacoma.
Holland, Robert	Seattle.
Latimer, Jay M.	Seattle.
McCann, Charles	Everett.
McMahon, William F.	Kent.
Osborn, Walter S.	Seattle.
Osterman, Adolph J., M. D.	Seattle.
Otis, Sidney	Seattle.
Parker, Adella M., A. B.	Seattle.
Raymond, William H.	Vancouver, B. C.
Sayre, Frank B.	Seattle.
Schmidt, Nicholas	Seattle.
Steffen, Charles H.	Farmington.
Steiner, Gottlieb	Waterville.
Stringer, John	Seattle.
Tennant, George R.	Seattle.

NAME.	RESIDENCE.
Thomson, George	Seattle.
Toellner, August	Van Asselt.
Underwood, Julia	Brooklyn.
Ushijima, Shimpei	Osaka, Japan.
Weretnikove, Bella	Seattle.
Whiton, Edna B	Seattle.
Widmer, John M	Seattle.
Williams, Sidney J	Renton.
Winter, Frank	Seattle.
Yager, Benjamin W	Seattle.

PREPARATORY SCHOOL.

FOURTH YEAR.

NAME.	RESIDENCE.
Drumheller, Lulu	Spokane.
Fletcher, Rufus W., Jr	Latona.
Hoiland, Ingebrith	Minneapolis, Minn.
Johnson, Aylett N	New Whatcom.
Rear, Effie S	Snohomish.
Saylor, Ella	North Yakima.
Stuth, William R	Olympia.
Walton, Chester	North Yakima.
Woody, Ozro H	New Whatcom.

THIRD YEAR.

Cameron, Hayden S	Columbia.
Clegg, Hilda C	Tacoma.
Cook, Charles E	Columbia.
Dana, Donald W	Dunlap.
Dickson, Algernon	Waterville.
Dudley, Frank W	Columbia.
Ferguson, Fred A	Vashon.
Flynn, Robert J	Columbia.
Friese, Lena M	Snohomish.
Groat, Ermie P	Columbia.

NAME.	RESIDENCE.
Hartung, Olga	Columbia.
Hayden, Sidney C.	Columbia.
Heffner, Bertha L.	Snohomish.
Hellenthal, Joseph	Columbia.
Hepler, Royston E.	Columbia.
Hight, Laura B.	Sedro-Woolley.
Hines, Anna	Montesano.
Hopkins, John A.	Ballard.
Hopkins, Maud H.	Ballard.
Jennings, William E.	La Conner.
Lacey, Martin J.	Auburn.
Lawrence, Ethel A.	Columbia.
Lawrence, William E.	Columbia.
Lindig, Harry J.	Brooklyn.
Mann, Viola	Ballard.
Matson, Harvey A.	Quilcene.
McFarland, Kenneth	Sumner.
McMillan, Annie L.	Ballard.
McMillan, Ida G.	Ballard.
Minkler, Birdsey A.	Lyman.
Odale, Lillian	Union, Ore.
O'Laughlin, Ernest W.	La Conner.
Prather, Alfred M.	Ross.
Purdy, Lela P.	Columbia.
Robinson, Joseph M.	Minneapolis, Minn.
Rogers, Clarence B	Minneapolis, Minn.
Scheib, Elma A.	Columbia.
Schneider, Hugo H.	Snohomish.
Settle, Maude	Catlin.
Settle, Phoebe	Catlin.
Sexton, Leo L.	Tacoma.
Sumner, Aubrey A.	Avon.
Terpenning, Roy	Olympia.
Thomas, Sarah	Black Diamond.
Wallick, Clara L.	Columbia.
Wheeler, Roy M	Columbia.
Williams, Lena R.	Mt. Vernon.

NAME.	RESIDENCE.
Winchell, Birdie M	Dunlap.
Winchell, Vinnie R	Dunlap.
SECOND YEAR.	
Brygger, Anna	Ballard.
Crossley, Jasmine	Issaquah.
Dart, Nina A	Minneapolis, Minn.
Georgeson, Dagmar	Sitka, Alaska.
Hammond, Milton W	Seattle.
Hansen, Selma	Enumclaw.
Jones, Frank P	Edmonds.
Jones, William T	Edmonds.
Leamer, Chester	La Conner.
Maxfield, Herbert F	Seattle.
O'Meara, Mary	Seattle.
Pearson, Florence	Starbuck.
Pearson, Robert	Starbuck.
Polley, Elnora	Issaquah.
Prosch, Arthur M	Seattle.
Shelton, Celia D	Seattle.
Snoke, Percy	Puyallup.
Street, Alys M	Brooklyn.
Wakefield, Cordelia B	Decatur.
Wakefield, Emma E	Decatur.
Walker, Agnes M. C	St. Paul, Minn.
Watanabe, Shiro	Osaka, Japan.
FIRST YEAR.	
Bird, Joe V	Snohomish.
Brintnall, Bert W	Ahtanum.
Brooke, M. Bessie	Langley.
Corson, Eva M	Issaquah.
Cotchett, Euphrosyne	Seattle.
Dana, Jay L	Dunlap.
Dana, Lee H	Dunlap.
Denny, Arthur J	Everett.
Dootson, James	Bucoda.
Ellis, Dewitt D	Coin, Ia.
Elwell, Ralph H	West Seattle.

NAME.	RESIDENCE.
Fagerberg, Emil	Houghton.
Fletcher, James	Latona.
Gardiner, Alexander	North Bend.
Garner, Maud L	Yesler.
Gibson, Earl	Issaquah.
Harn, Marguerite	Orillia.
Hewitt, Charles	Green Lake.
Hines, Robert, Jr	Vesta.
Holdredge, Helen C	Brighton Beach.
Ivey, Horace	Bellevue.
Jabush, Leo W	South Park.
Johnson, George F	Acme.
Knoph, Aden E	Dungeness.
Knoph, Allo M	Dungeness.
McGee, Etta L	West Seattle.
Murphy, Frank D	Elk Garden, W. Va.
Reeves, Ella M	Columbia.
Reynolds, Ethel I	Ashcroft, B. C.
Saylor, William	North Yakima.
Schultz, William, Jr	Port Townsend.
Street, Florence M	Brooklyn.
Wood, Harry	Ballard.
Wylde, Mayo S	Minneapolis, Minn.

MEDICAL PREPARATORY.

Walter, George E	Renton.

SUMMARY OF ENROLLMENT.

Graduate School	25
College of Liberal Arts	222
College of Engineering	40
School of Mines	39
School of Pedagogy	32
School of Pharmacy	16
School of Law	44
Preparatory School	115
	533
Names repeated	19
Total	514

THE ALUMNI ASSOCIATION.

OFFICERS FOR THE YEAR 1899-1900.

President, HENRY L. REESE, A. B., 1899.
Vice President, HEARTIE WOOD, A. B., 1898.
Corresponding Secretary, CAROLINE HORTON, A. B., 1899.
Recording Secretary, HARRY C. COFFMAN, A. B., 1899.
Treasurer, CLARA M. TALMAGE, Ped. B., 1895.
Historian, ADELLA M. PARKER, A. B., 1893.

EXECUTIVE BOARD.

JAMES E. GOULD, '96, *Chairman*, Seattle.
JOHN JACKOL, '98, Aberdeen.
GEORGE A. COLMAN, '82, Seattle.
RALPH D. NICHOLS, '96, Columbia.
MARION EDWARDS, '98, Seattle.

GIFTS, 1899-1900.

MUSEUM.

ETHNOLOGY, ARCHÆOLOGY, ETC.

Totem pole, presented by the Harriman Alaska Expedition.

Northwest Indian carving, presented by W. H. Tiedeman, '01.

Sandwich Island war club, presented by Carl H. Reeves, '01.

Native's garment from Manila, presented by F. A. Blanchard.

Head of a war club from the grave of a Florida Indian, presented by M. Krows.

"S. Winfield Hartt Collection" of archæological specimens.

BOTANY, ZOOLOGY, ICHTHYOLOGY, ETC.

"Starks Collection of Fishes;" see page 36.

Collection of corals, presented by Field Columbian Museum.

Collection of mounted birds and mammals, presented by E. A. Preble, United States Biological Survey.

Mounted walrus head, presented by Captain Pratt, United States Coast and Geodetic Survey.

Fur seal skin, to be mounted, presented by Pres. E. O. Graves, Seattle Chamber of Commerce.

"P. B. Randolph Collection of Shells;" see page 36.

Collection of dried grasses, presented by Mrs. Herman Chapin.

GEOLOGY, MINERALOGY, PALEONTOLOGY, ETC.

"John R. Baker Collection of Minerals;" see page 36.

"S. Winfield Hartt Collection of Fossils;" see page 37.

LIBRARY.

This year 779 bound volumes and 753 pamphlets have been donated to the main library. Notable among the gifts is "The Silva of North America," consisting of thirteen finely engraved bound volumes, costing $325. They are the gift of Mr. S. G. Simpson of Seattle. Mr. Richard D. Baker of Seattle has loaned to the

School of Mines seven valuable volumes containing the "Proceedings of the American Institute of Mining Engineers."

The School of Law has been presented with several hundred volumes by members of the Seattle bar and others, who do not wish their names mentioned.

APPARATUS AND EQUIPMENT.

COLLEGE OF ENGINEERING.

The Northwest Fixture Company has donated a large number of sample insulators, cables, insulated wire, and flexible cords. The American Steel and Wire Company has presented an exhibition board of over seventy-five samples of steel cables, magnet wires, house cord, and insulated line wires.

SCHOOL OF MINES.

The Pacific Coast Company has donated a model of their mines at Franklin, Newcastle, and elsewhere.