

laboratory or more, and suitably furnish and equip the same.

* * * A department of said College, to be designated the department of agriculture, and in connection therewith instruction in the following subjects: *First*, Physics, with special application of its principles to agriculture. *Second*, Chemistry, with special application of its principles to agriculture. *Third*, Morphology and physiology of plants, with special reference to the commonly grown crops, and their fungus enemies. *Fourth*, Morphology and physiology of the lower forms of animal life, with special reference to insect pests. *Fifth*, Morphology and physiology of the higher forms of animal life, and in particular the horse, cow, sheep and swine. *Sixth*, Agriculture, with special reference to breeding and feeding of live stock, and the best modes of cultivation of farm produce. *Seventh*, Mining and metallurgy."

This commission did not succeed in locating and establishing the College, but the section just quoted was not repealed by the next legislature, which, in 1891, passed an act *accepting the grants made by Congress* and establishing an institution of learning in conformity therewith. Section 2 of this last act declares:

"The Agricultural College, Experiment Station and School of Science created and established by this act shall be an institution of learning open to the children of all the residents of this state and to such other persons as the Board of Regents may determine. * * * Shall be non-sectarian in character and devoted to practical instruction in agriculture, mechanic arts, natural sciences connected therewith, as well as a thorough course of instruction in all branches of learning bearing upon agriculture and other industrial pursuits."

Section 3 of this act further indicates the scope and purpose of the college as follows:

"The course of instruction of the Agricultural College, Experiment Station and School of Science shall embrace the

English Language, Literature, Mathematics, Philosophy, Civil and Mechanical Engineering, Chemistry, Animal and Vegetable Anatomy and Physiology, the Veterinary Art, Entomology, Geology, and Political, Rural and Household Economy, Horticulture, Moral Philosophy, History, Mechanics, and such other sciences and courses of instruction as shall be prescribed by the Regents of this institution of learning."

The national legislation making donations of land and money for agricultural colleges is equally indicative of an intention to provide facilities for specific lines of study. Evidently the object has been to furnish the young a broad, practical and liberal education—not merely mental training put ethical, mental and manual, and to employ such methods as will secure the highest development of the whole being—at the same time to inculcate a proper sense of the dignity of labor, the duties and privileges of citizenship, and the great importance of applying to the various industries of life the scientific information obtained at school. It is therefore the object of the faculty of this institution to assist all who pursue its courses of study to obtain such an education as will enable them to apprehend their high destiny, to develop all their faculties of body, mind and soul, and to carry away with them such an inspiration as will insure a life of honest and earnest service in some useful field of labor. The facilities necessary to carry out the full design of the institution are expensive and can not all be obtained at the outset. It is certainly a wise policy of the legislature not to sell the magnificent land grant until it reaches a higher valuation. In the meantime the institution has a liberal income from other sources.

ENDOWMENT.

The funds of the institution are derivable from the following sources:

- (a) State appropriations.
- (b) United States law of March 2, 1887, known as the Hatch fund.
- (c) United States law of August 30, 1890, known as the Morrill fund.
- (d) Tuition from students outside of the state.
- (e) Receipts of moneys from the sale of products of the farm and experiment station.
- (f) Forfeitures of deposits by students for damages to furniture, etc.

THE HATCH FUND.

The law of March 2, 1887, established experiment stations in connection with agricultural colleges in the different states, and appropriated for the purpose the sum of \$15,000, to be paid in equal quarterly payments on the first day of January, April, July and October in each year. This sum is appropriated for the purpose of "paying the necessary expenses of conducting investigations and experiments and printing and distributing the results." It also requires bulletins, or reports of progress, to be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the state, and to such farmers as may request the same. Out of the Hatch fund five per cent. may be expended in the erection, enlargement or repairs of a building or buildings necessary for carrying out the work of the Experiment Station.

THE MORRILL FUND.

This is the United States law of August 30, 1890. The object of this fund is a more complete endowment and support of the colleges for the benefit of agriculture and

the mechanic arts. It is paid annually, on or before the 31st day of July, to such officers as shall be designated by the laws of the state to receive the same, who shall, on the order of the Regents, immediately pay the same over to the treasurer of the board. The fund is \$19,000 for the fiscal year ending June 30, 1894, and increases \$1,000 each year until it reaches \$25,000, when it thereafter remains stationary.

STATE APPROPRIATIONS AND FUNDS.

The United States has endowed the Agricultural College with 90,000 acres of land, and the School of Science with 100,000 acres. None of these lands have as yet been sold and converted into funds for the use of the institution. Less than half of each amount donated has been selected and appraised, and the valuation of that which has been appraised, 74,500 acres, amounts to nearly *one million dollars*. With the rapid increase in value of real estate this endowment will soon reach *two million dollars*. When these lands shall have been sold the moneys arising from such sales will constitute a fund for the endowment, support and maintenance of the College, and will be a permanent and irreducible fund, except that a sum not exceeding ten per cent. upon the amount received may be expended for the purchase of lands, for sites and experimental farms, whenever authorized by the legislature, but no portion of the fund nor the interest thereon shall be applied directly or indirectly, under any pretense whatever, to the purchase, erection, preservation or repair of any building or buildings.

The legislature of 1893 appropriated the following:

For college and administration building.....	\$50,000 00
For mechanical engineering building.....	10,000 00
For deficiency.....	25,000 00
For fuel and incidentals.....	10,000 00
For sewerage system.....	1,500 00
For root house.....	500 00
Total.....	\$97,000 00

REQUIREMENTS OF ADMISSION.

Candidates for the Freshman class must not be less than fifteen years of age. They must present evidences of good moral character and an honorable dismissal when coming from another institution.

Examinations for admission are held at the College, one day prior to the opening of the fall session, in 1893, on September 12, at 9 o'clock A. M. It is very important that all who enter for the first time shall be present at this examination, but where such is impossible special examinations will be arranged later, and applicants will be assigned to such classes as they are found best fitted to enter.

The examinations will be written and will include the studies embraced in the Preparatory course, namely: Arithmetic (including the metric system); English grammar and composition (an original essay will be required to demonstrate ability to use and spell words correctly, to punctuate properly and to express thought clearly); United States History (Scudder); English History (Lancaster); Elementary Algebra to Logarithms (Wentworth); Plane Geometry, *three* books (Wentworth); Elementary

Physics (Avery or Gage); and Physical Geography (Eclectic.*).

Candidates will also be tested as to their acquaintance with certain standard works in English literature.

During the years 1893-94 tests will be made in the following: Irving's *Sketch Book*, Scott's *Ivanhoe*, Longfellow's *Courtship of Miles Standish*, Shakespear's *Julius Cæsar* and *Merchant of Venice*, Emerson's *American Scholar*, and Hawthorne's *House of Seven Gables*.

Those who apply for advanced standing must pass an examination in the work taken by the class they enter.

ADMISSION WITHOUT EXAMINATION.

Graduates of High Schools in the cities of Spokane, Seattle and Tacoma, and from such other schools as the faculty may approve, will be admitted on their diploma without examination. Applicants arriving at the College should report to the President immediately. No student will be admitted to any class exercise except upon admission ticket from the President.

STUDENTS' EXPENSES AND EQUIPMENT.

Tuition is free in all departments. Those who occupy a room in the dormitory will be required to pay \$17 a year. This is divided as follows: \$7 for fall session; \$5 for winter, and \$5 for spring sessions. In addition to this, each student using a room in the dormitory is required to deposit \$5 with the accountant as security against general

*The text books are indicated only to give a clearer idea of the requirements. Books of equal rank, well mastered, will furnish satisfactory evidence of sound preparation.

damages. This sum is returned to the student less that *pro rata* amount necessary to cover damage done to building and furniture when the person causing the damage is not known to the College authorities; but no such account is settled until after the close of the entire College year.

The damage deposit is payable when the student enters the institution. The other charges are payable *at the beginning of each session, or upon entrance if the student is received after the term has begun.* In no case will students be given quarters in the building until they have settled their bills at the business office or given such security for payment of the same as the Board of Regents may prescribe. Those who work in the laboratories will be charged only for material used and breakage.

Students rooming in the dormitory must provide themselves with the following:

- 4 or more sheets (for single bed).
- 3 or more pillow cases.
- 1 pillow and mattress (the latter can best be purchased here).
- Bed clothes (blankets and comfortables).
- 4 or more towels.
- 1 wash basin, pitcher and slop pail (can be purchased here).
- 4 table napkins.
- 1 looking-glass.

Students are *advised* but not required to carpet their rooms; they would also do well to provide an easy chair and a cover for study tables. Study tables are all 2' 3" \times 3' 6".

BOARDING.

The College does not provide table board. It has furnished a dining room and kitchen. The boarding department is managed by a committee of students and faculty,

who employ a steward and manage all the affairs of the club. One invariable rule is, that *each student must, upon entering the club, deposit with the steward \$12.* Then, at the end of every month, an assessment is made, each member paying but the actual cost per capita per month. The average price per month has been, thus far, not more than \$12.50.

TEXT BOOKS.

The *accountant* has a supply of such text books, in the business office, as are not on sale in book stores of the town. These books are furnished at as low a price as possible, but must be paid for when received.

SUMMARY OF EXPENSES.

Room rent (fall session).....	\$7 00
Room rent (winter session).....	5 00
Room rent (spring session).....	5 00
Damage deposit.....	5 00
Boarding (about) \$12.50 per month, 10 months.....	125 00
Text books about \$15 per year.....	15 00
Laundry expenses about.....	15 00
Total annual necessary expenses.....	\$177 00

It is easily seen that by practicing economy a student can live comfortably on less than \$200 a year, exclusive of clothing. When a military officer is detailed for the College the cadets will be required to purchase uniforms, but every effort will be made by the authorities of the College to obtain suits at the lowest possible figure.

The cost of a good military suit will not likely exceed \$20, and may be less. It is, furthermore, as cheap as any civilian suit a student can purchase.

COURSES OF INSTRUCTION.

The following courses of study are provided:

1. General Science.
2. Agriculture.
3. Civil Engineering.
4. Mechanical Engineering, (including)
 - (a.) Course in Electrical Engineering.
 - (b.) Course in Mill and Hydraulic Engineering.
 - (c.) Course in Steam Engineering.

The studies are essentially the same in the first three years — exactly alike the Freshman year — and are selected with reference to their value in securing mental discipline and in furnishing the necessary information for the more technical studies of the Senior year.

An effort has been made to include in all courses as many as possible of the general subjects so valuable for their influence in the formation of character and of correct views and purposes in life. Throughout all the courses will be found the idea of *theory* and *practice combined*. Along with a study of the theory, carefully arranged, *practicums* are provided.

Essays and *Rhetorical* exercises are required of all students throughout their entire course. The ability to read and speak in public with ease and effect is a valuable training for any young person, wherever his lot may be cast in after life.

SPECIAL COURSES.

Special courses are not encouraged by the faculty, but may be granted to those students of *mature years* who find it impossible to remain long enough to complete a full course. In all cases the applicant for special course must be able to pass *all examinations for freshman work*; must present his application in writing to the President to show that his selection of studies does not conflict with the schedule of recitations in force, and that it does provide him full amount of work. The faculty reserves the right to refuse the request entirely, or to direct some modification of it, as may seem best for the good of the student and the College. Students pursuing special courses are *not entitled* to degrees, but will receive certificates of work completed in a satisfactory manner.

DEGREES.

Those who complete a full four years' course will be given the usual degree as evidence of their attainments. The first degree in all courses will be B. S. (Bachelor of Science).

Two years after graduation, upon presentation of satisfactory evidence to the faculty of professional work or study, the second degree may be given; that is, a B. S. in the Mechanical Engineering Course may then obtain his M. E. degree, and so the B. S. in the Civil may become a C. E., and Bachelors of Science in the Scientific Course may receive the degree of Master of Science. In all cases there must be evidence of scientific post graduate work presented before the degree will be recommended by the faculty.

I.—COURSE IN GENERAL SCIENCE.

(Figures indicate hours of class exercises per week.)

	FALL SESSION.	WINTER SESSION.	SPRING SESSION.
FRESHMAN YEAR.	Rhetoric..... 4	Geometry..... 5	Advanced Algebra... 5
	Geometry..... 5	General Chemistry... 5	General Chemistry... 5
	German..... 5	German..... 5	Botany..... 5
	<i>Practicum.</i>	<i>Practicum.</i>	<i>Practicum.</i>
	Woodwork and Shorthand.....10	Mechanical Drawing and Shorthand.....10	Forging or Shorthand10
SOPHOMORE YEAR.	Plane Trigonometry..... 5	Trigonometry and Analytical Geom... 5	Analytical Geom..... 5
	Botany..... 5	French 5	General History..... 5
	French..... 5	Physics..... 5	Physics..... 5
	<i>Practicum.</i>	<i>Practicum.</i>	<i>Practicum.</i>
	Surveying.....10	Botany, Physics.....10	Laboratory work, Physics.....10
JUNIOR YEAR.	Physics..... 4	Zoölogy..... 5	Geology..... 3
	Zoölogy 5	Astronomy..... 3	Logic..... 4
	English Literature... 3	English Literature... 5	Zoölogy..... 3
	General History..... 3	<i>Practicum.</i>	Const. History..... 5
	<i>Practicum.</i>	Chemistry, Literature.....10	<i>Practicum.</i>
	Chemistry, Physics..10		Chemistry.....10
SENIOR YEAR.	Constitutional Law.. 4	Political Economy... 5	Moral Science..... 5
	Geology..... 4	Mental Science..... 4	International Law... 4
	Practical Astronomy..... 5	Advanced French and German..... 5	Advanced French and German..... 5
	History Civilization, 4	<i>Practicum.</i>	<i>Practicum.</i>
	<i>Practicum.</i>	Thesis work.	Thesis work.
	Mineralogy.....10		

NOTE.—Students in all courses are required to write essays and participate in rhetorical exercises.

EXPLANATORY REMARKS.

The General Science Course provides an education both general and practical. It furnishes a training in Mathematics, the English and Modern Languages, the Natural Sciences, and in the more abstract studies, such as Political Economy, Logic, Mental and Moral Science, etc. A student who completes the course cannot but be fairly well prepared for a successful career in any modern calling or for a professional course.

Many of the studies in this course are also found in the others. They are explained here for convenience. Among the more prominent ones are:

MATHEMATICS.

The work in pure Mathematics extends through the Sophomore year. It embraces Higher Algebra, Plane and Solid Geometry, Trigonometry, Analytical Geometry and Calculus.

The methods of instruction are such as to secure the most complete mastery of principles and facility in their application. Both are essential to a sound and practical education, and are particularly necessary in the study of technical courses and in professional careers. Students are required to construct and solve numerous original problems, and are thus led to apply that which they learn of principles in actual practice.

MODERN LANGUAGES.

German and French are each given two full terms in the early part of all courses and are again taken up in the Senior year of the General Science. The object of the

instruction is to give, first of all, such familiarity with the idioms and laws of the language as will enable the student to read and translate with facility the scientific literature he may meet in his professional studies.

THE ENGLISH LANGUAGE.

This is taken up where the preparatory course ends and is continued throughout the entire College course, either by regular class exercises or essays and rhetorical work.

The text book work is confined to the study of Rhetoric and Literature.

Rhetoric is studied during the fall session of the Freshman year, particular attention being given to the application of the principles of Rhetoric in the study of a few standard authors.

The work also includes the writing and correction of essays and orations, with practice in criticism.

Literature is taken up by the Junior class during the fall and winter sessions. A general survey in Literature is given in order to prepare for the intelligent study of particular periods and authors; note is made of the laws of literary growth and the relation of literature to civilization. The student is required to read carefully and study critically selected works of the best authors, the end aimed at being the attainment of literary culture.

BOTANY.

This study occupies three terms. The spring session of the Freshman year is devoted to structural Botany of the flowering plants and the more simple anatomy of the same. Considerable time is given to systematic work,

and each student is required to prepare an herbarium of at least twenty-five species of native plants. This work is continued into the early part of the Sophomore year, attention being given mainly to the more difficult orders of flowering plants; as, *compositæ*, *cyperaceæ* and *graminæ*, and to the ferns and mosses.

The remainder of the course is confined to the minute anatomy of typical plants of all orders, and special attention is given to the structure and life histories of destructive fungi.

The text books used are Gray's Lessons and Bessey's Botany. These are supplemented by occasional lectures. Drawing is a prominent feature of the laboratory work required.

ZOOLOGY.

This subject is not included in quite all the technical courses, but is so nearly general that it is outlined here because of that and of its prominence. The course in this study is designed to give the student an intimate knowledge of the various structures of animals and their classification as based on the comparison of the same.

Each student is required to make careful dissections, both gross and minute, of representative forms, including mammal, bird, frog, fish, insect, crayfish, clam, earth worm, starfish, etc., and to make drawings and descriptions of the same. During the spring session considerable attention is given to systematic zoölogy and the preparation and preservation of specimens. Packard's Zoölogy is used as a guide and is supplemented by outlines of laboratory work and lectures.



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