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1896-1897 Course Catalog

University of Montana--Missoula. Office of the Registrar

THE

UNIVERSITY OF MONTANA

ANNUAL REGISTER, 1896-97.

THE

Second Annual Register

OF THE

University of Montana

Missoula, Montana.

1896-97.

With an outline of the Course of Study and the Departments of Instruction for

1897-98.

STATE PUBLISHING CO.
STATE PRINTERS AND BINDERS,
HELENA, MONTANA.

COLLEGE CALENDAR FOR 1897-98.

1897.

Entrance Examination begins Monday, September 13.
First Semester begins Wednesday, September 15.
Thanksgiving Vacation begins Wednesday, November 24, 12 M.
Thanksgiving Vacation ends Monday, November 29, 10:15 A. M.
Christmas Holidays begin Thursday, December 23.

1898.

Christmas Holidays end Tuesday, January 4, 8:45 A. M.
First Semester ends Friday, February 4.
Second Semester begins Monday, February 7.
Annual Entertainments of Literary Societies, February 17 and 18.
Annual Lecture before Literary Societies, June 3.
Baccalaureate Day, Sunday, June 5.
Annual Recital School of Music, June 6.
Field Day, Tuesday, June 7.
H. N. Buckley Oratorical Contest, Tuesday, June 7, 8:30 P. M.
Commencement, Wednesday, June 8.

CALENDAR FOR 1897-98.

July to December, 1897.

JULY

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AUGUST.

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SEPTEMBER.

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OCTOBER.

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NOVEMBER.

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DECEMBER.

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January to June, 1898.

JANUARY.

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MAY.

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JUNE.

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The Montana State Board of Education.

EX-OFFICIO.

GOVERNOR ROBERT B. SMITH, President.

C. B. NOLAN, Attorney General.

E. A. CARLETON, Supt. Public Instruction, Secretary.

APPOINTED.

PETER WINNE, Helena	Term Expires	February	1st,	1899
O. F. GODDARD, Billings	"	"	"	"	1899
O. P. CHISHOLM, Bozeman	"	"	"	"	1900
E. B. HOWELL, Butte	"	"	"	"	1900
HENRY R. MELTON, Dillon	"	"	"	"	1901
W. T. PIGOTT, Great Falls	"	"	"	"	1901
J. M. HAMILTON, Missoula	"	"	"	"	1898
H. H. GRANT, Grantsdale	"	"	"	"	1898

CAMERON C. WYLIE, Helena.....Clerk of the Board

EXECUTIVE COMMITTE OF THE STATE UNIV ERSITY.

J. H. T. RYMAN, President ..... Missoula
T. C. MARSHALL ..... Missoula
HIRAM KNOWLES ..... Missoula

THE FACULTY.

OSCAR J. CRAIG, A, M., Ph.D., PRESIDENT.
Professor of History and Literature.

S. A. MERRITT, B.S.,
Professor of Chemistry and Physics.

CYNTHIA ELIZABETH REILEY, B. S.,
Professor of Mathematics.

W. M. ABER, A. B.,
Professor of Latin and Greek.

FREDERICK C. SCHEUCH, M. E., A. C.
Professor of Modern Languages and Temporarily in charge of the Department of Mechanical Engineering.

*MORTON J. ELROD, M. A.,
Professor of Biology.

MRS. WALTER WHITAKER,
Instructor in Music.

ELOISE KNOWLES,
Assistant in the Preparatory Department.

MARY A. CRAIG, B. S.,
Librarian.

* Took charge of the Department February 1, 1897.


ORO Y PLATA

THE UNIVERSITY AND ITS ENDOWMENT.

The University of Montana was created by an Act of the Montana State Legislature, approved February 17th, 1893. The following extracts give the title of the act; and also certain sections that indicate the purpose of the University and the scope of its work.

"An Act to establish, locate, maintain, and govern the University of the State of Montana.

Section 1. "There is hereby established, in this State at the City of Missoula, an institution of learning under the name and style of the University of Montana."

Section 6. "The object of the University of Montana shall be to provide the best and most efficient manner of imparting to young men and young women, on equal terms, a liberal education and thorough knowledge of the different branches of Literature, Science, and the Arts, with their varied applications; and to this end there shall be established the following colleges or departments, to-wit:—

First—A Preparatory Department.

Second—A Department of Literature, Science and the Arts.

Third—Such professional and technical colleges as may from time to time be added to or connected therewith.

The Preparatory Department may be dispensed with at such rate and in such wise as may seem just and proper to the State Board of Education."

Section 7. "Such duties or courses of Instruction shall be pursued in the Preparatory Department as shall best prepare the

students to enter any of the regular colleges or departments of the University.

"The college or department of Literature, Science, and the Arts shall embrace courses of instruction in Mathematical, Physical and Natural Sciences with their applications to the Industrial Arts; a liberal course of instruction in the Languages, Literature, History, Philosophy, and such other branches as the State Board of Education may prescribe. And, as soon as the income of the University will allow, and in such order as the demands of the public seem to require, the said courses of instruction in the Sciences, Literature, and the Arts shall be expended into distinct colleges or departments of the University, each with its own Faculty and appropriate title."

Section 9. "Tuition shall ever be free to all students who shall have been residents of the State for one year next preceding their admission; except in the Law and Medical Departments, and for extra studies. The State Board of Education may prescribe rates of tuition for any student in the law or medical department, or who shall not have been a resident as aforesaid, and for teaching such studies."

ENDOWMENT.

Section 11. "For the support and the endowment of the University there is annually and perpetually appropriated.

"First—The University Income Fund and all other sums of money appropriated by law to the University Income Fund.

"Second—All tuition and matriculation fees.

"Third—All such contributions as may be derived from public or private bounty.

"Section 10. Any person contributing a sum not less than fifteen thousand ($15,000) dollars shall have the privilege of endowing a professorship in the University, or any department thereof, the name and object of which shall be designated by the State Board of Education."

The University Income Fund arises from the rental of 46,080

acres of land which was granted by Act of Congress, February 18, 1892. The following extract from a recent report of the State Board of Education shows the condition of this fund:

"All this land has been selected and set aside for the purpose designated in the Act. Most of these lands were selected some ten or twelve years ago by State Agent R. H. Howey and comprise some of the best lands in the State. They are already very valuable and will continually become more so. Under the efficient management of the present State Board of Land Commissioners none of these lands have been sold, but much has been leased at a good rental. This land was granted by the Federal Government upon condition that the proceeds from sale should be kept as a permanent University fund; and only the income from leases of land and interest of money loaned can ever be used for maintaining the University."

In accordance with the legal provisions above quoted, the State Board of Education fitted up a building, selected a Faculty, and made the necessary arrangements for the opening of the University on Wednesday, September 11, 1895.

THE EQUIPMENT OF THE UNIVERSITY.

UNIVERSITY GROUNDS.

The University Grounds, comprising forty acres of excellent land, are on the south side of the Missoula river just where it leaves Hell Gate canon to enter the beautiful Missoula valley. The outlook is to the west, the mountain slope being in the rear. In the foreground and to the right, lying on both sides of the river, is the city of Missoula but the view extends uninterrupted for many miles down the valley. On the left is the Bitter Root valley with Mt. Lo Lo in the distance. On the right and beyond the river are Mt. Jumbo and the canon of the Rattlesnake. This

river affords the waterworks with an unlimited supply of water remarkable for its purity and clearness.

The citizens of Missoula have fenced the grounds, planted shade trees, and supplied them with water without expense to the State.

BUILDINGS.

At the last session of the Montana Legislature authority was given to issue $100,000 in bonds, secured by the income from the University land, for the purpose of erecting and equipping permanent buildings for the use of the University. These bonds have been sold at a premium, a Building Commission appointed, and the work of constructing the buildings will be vigorously pushed to completion.

Plans for two buildings have already been considered. The first of these to be called University Hall and to contain the lecture rooms in Ancient Language, Modern Language, History, Literature and Biology, also the Biological Laboratory, Museum, Library, Assembly Room, Literary Halls and Presidents' Office. The second will be known as Science Hall and will provide accommodation for the Departments of Chemistry, Physics and Mechanical Engineering.

TEMPORARY ACCOMMODATIONS.

The elegant and commodious South Side Public School building, erected and completed at a cost of about $19,000, has been turned over to the State Board of Education for the free use of the University for a period of two years, or until University Buildings can be constructed.

This Building is located in South Missoula, and is easy of access from all parts of the city, as there are excellent sidewalks, and the street car line has been extended to it.

The building is a modern brick structure containing three stories and a basement.

The first floor contains the lecture rooms in Mathematics, Greek and Latin, Modern Languages, History and Literature, and the

President's Office. These lecture rooms are fitted with excellent desks and supplied with blackboards, maps, charts and other illustrative material.

On the second floor is found the Library, Chemical Laboratory, Physical Laboratory, and Biological Laboratory. The equipment of these is given in another place.

The third floor is the Assembly room. This has a seating capacity of about 300 and is provided with rostrum, chairs, piano, and individual desks enough to accommodate the present attendance of students.

The heating apparatus, lavatories, and lunch rooms are in the basement. After taking the room necessary for the acommodation of these there is left a floor space of 24 feet by 52 feet which has been fitted up for a laboratory for shop practice, in bench work in wood, turning, pattern making, etc. The tables for Mechanical Drawing have been placed temporarily in the lecture room of the Department of Modern Languages.

THE LIBRARY.

This is a well lighted room situated on the second floor, and is provided with cases for books and periodicals, and a newspaper rack.

There are at present in the library 1,579 volumes, exclusive of pamphlets and periodicals. So far the library contains but little except that material most needed for reference in the work already in progress in the University. This list, for the most part, includes Dictionaries, Encyclopedias, Histories, standard works in Literature, Science, Politics, Philosophy and Economics.

The following periodicals are on file:

The Forum.
Popular Science Monthly.
Harper's Weekly.
Harper's Monthly Magazine.
North American Review.
Atlantic Monthly.
The Cosmopolitan.

The Scientific American.
Political Science Quarterly.
Ladies' Home Journal.
American Journal of Psychology.
The Independent.
The Dial.
The Century Magazine.
Review of Reviews.
Scribner's Magazine.
The Chautauquan.
Forest and Stream.

The following newspapers are on file and are for the most part donated by their respective publishers:

The Chronicle, Bozeman.
The Daily Missoulian, Missoula.
The Bitter Root Times, Hamilton.
Avant Courier, Bozeman.
The Anaconda Standard, Anaconda.
The Western News, Hamilton.
The Montanian, Thompson Falls.
The Billings Times.
Democrat-Messenger, Missoula.
Glendive Independent.
The Troy Times, West Troy.
The Plainsman, Plains.
Montana Silverite, Missoula.
Flathead Herald-Journal, Kalispell.
Montana Fruit Grower.
Belt Valley Times.
The Columbian, Columbia Falls.
Helena Independent, Helena.
The Citizens Call, Philipsburg.
Western Mining World, Butte.
The Montana Mining Area.
The Darby Sentinel.
The Inter-Lake, Kalispell.
The Tribune, Butte.
The Recorder, Anaconda.
Weekly Tribune, Dillon.
The Northwest Tribune, Stevensville.
Rocky Mountain Husbandman, White Sulphur Springs.
Mining, Spokane.

The students have also free access to the Public Library of the City of Missoula.

DEPARTMENT OF CHEMISTRY.

One laboratory is given to this subject. Its arrangement is the usual one which obtains for work in general descriptive chemistry. There are 24 working places for students, and reagent bottles for 12 students. The department is provided with Hoskins' Assay furnace, crucible furnace No. 4 and muffle No. 3, and a six gallon gasoline tank; one general analytical balance by Becker, with agate planes, and sensitive to .1 mg; and an assay balance by the same makers sensitive to 1-50 mg. There are also other pieces of quantitative apparatus, such as burettes, pipettes, and a few graduated vessels. The Dangler burners are used as the general source of heat in the Chemical Laboratory, and are an excellent substitute for gas. Adjoining the Chemical Laboratory is a store room which is being used to a considerable extent as a quantitative laboratory.

DEPARTMENT OF PHYSICS.

The equipment in this department, although a modest one, has been much appreciated. Besides many other pieces of apparatus with which this department is supplied, we note especially the apparatus for the subjects of light and electricity. The University has the best projection apparatus with accessories, that is manufactured in America, and it is not surpassed by the best European makers. This projection apparatus consists of a Stereopticon by J. B. Colt & Co., of N. Y., with microscope, polariscope and vertical attachments, also attachments for projecting the spectrum. This stereopticon can be converted at moment's notice into calcium light, sunlight, or electric light apparatus. With it we are able to throw upon a screen ordinary lantern transparencies, anything which the ordinary powers of the microscope can reveal, galvanometer deflections, and other physical effects and also all ordinary chemical reactions. Other accessories in our possession, such as Nichol prisms, tourmaline plates, glass tank with graduated arc for refraction and total reflection, achromatic

prisms, etc., in connection with the projection apparatus above described, enable us to demonstrate the successive steps in the development of the undulatory theory of light.

For electricity and magnetism besides many minor pieces of apparatus, the equipment contains some very good testing and measuring instruments:—namely, a static galvanometer, and thermo-pyle for the detection of very slight variations in temperature. This galvanometer is wound with one coil of low, and one coil of high resistance, and as it is also differential, it admits of a wide range of work in measuring resistance and electromotive force of circuits. There is a sine and tangent galvanometer with sliding compass box, manufactured by Queen & Co., this is a standard instrument, and it is also wound with coils of high and low resistance. There is a reflecting galvanometer, with lamp and reading scale, and one dead-beat and balistic galvanometer, not affected by the proximity of masses of iron. Besides these galvanometers there is a standard Wheatstone bridge and resistance box, correct to 1-5 per cent, a standard slide-wire meter bridge, and Clark's standard cells, and also shunts for galvanometers.

Besides the above necessary testing and measuring instruments, the department is supplied with a Wheatstone bridge and resistance set of simpler construction, for students just beginning work in electrical measurement.

For magnetism there are large diamagnetic apparatus, dipping needle, electrometer and magnetometer, and various other smaller pieces of apparatus. For frictional electricity there is an excellent 26-inch Toepler Holtz machine.

The equipment also includes one of E. S. Ritchie's best automatic valve air pumps. This pump has stood the test, in the laboratory of the University, of producing a vacuum represented by a barometric difference of only 1 millimeter.

An Atwood machine for determining the laws of accelerated

motion has been supplied for this department, also specific gravity balances after Jolly and Mohr.

DEPARTMENT OF BIOLOGY.

This department is located in a commodious and well lighted room, and is provided with ample material for present needs. The equipment consists of three microscopes manufactured by Leitz, of Germany, four by Bausch & Lomb Optical Co., Rochester, N. Y., four camera lucidas after Abbe, a student microtome by Bausch & Lomb, Anthony's copying, reducing and enlarging camera, with accessories for making lantern transparencies, a camera for photomicrography, a pair of balances, drying oven, injecting apparatus, freezing and embedding attachments for the microtome, turn tables, razors, knives, etc., with a good assortment of glassware and chemicals for carrying on biological work.

One of the microscopes made by Leitz is the best made by this firm, and has the following accessories.

Three eye pieces, a series of five objectives, one being a one-twelfth oil emersion. It has also a revolving stage, with substage condenser after Abbe, and the Iris diaphragm. It has eye and stage micrometers, and accessory Nichol prisms for polarization, and also a camera lucida after Abbe.

There is a large dissecting microscope after the same makers, provided, with camera lucida after Abbe, a students' microscope with rack and pinion and micrometer adjustment, two eye pieces, and three objectives.

The microscopes made by Bausch & Lomb are provided with rack and pinion and micrometer screw, substage attachment, one eye piece and two objectives each. There are two camera lucidas after Abbe that fit any of these instruments.

The other working material consists of alcoholic invertebrates, land and marine, a series of some 400 mounted slides, an articulated skeleton, a collection of mounted and unmounted insects, an herbarium of some 3,000 species of phanerogams, and a collection of fishes.

The professor in charge has loaned for the use of the department a portion of his library, consisting of some 700 volumes and pamphlets, which makes a good nucleus for a department library. It is expected to make additions from time to time as the works are needed, and already a number of the best laboratory manuals have been supplied.

THE MUSEUM.

As yet the museum is not given a room separately, the cases and material being distributed in the main halls of the University and in the Biological laboratory. Specimens are being constantly received and added to those already on hand. There is urgent need of more cases and more room, but as ample provision will be made in the new quarters the work of adding to the collections is being vigorously pushed. The intention is to make the museum a depository of the material representing the natural, mineral and scientific wealth of the state.

It is most earnestly requested that all who are interested in the University, and especially in the preservation of valuable material for scientific work, should take special pains to contribute to the material in the museum. Time and circumstances are fatal to nearly all specimens, but being properly cared for and placed in the museum of the University they will be preserved.

At the present time the museum contains the following material:

From Mr. Robert Cobban, a fine collection of minerals and curios. This collection, especially valuable in the variety of representative minerals contained, will be of great service in Mineralogy.

From the Smithsonian Institution and United States National Museum, a collection of ninety-eight rock and mineral specimens.

From the Smithsonian Institution and National Museum, a collection of ninety-nine land and water invertebrates, and one

hundred and five fishes, salt and fresh water, preserved in liquid.

From Prof. S. A. Merritt, a collection of some 500 species of plants, mounted, from the flora of Montana.

From Prof. M. J. Elrod, a collection of some 2,500 species of plants, mostly mounted, from various parts of the world.

From Prof. M. J. Elrod, a collection of several thousand insects, deposited in the museum.

From Mr. Charles Emsley and Mr. L. D. Tracy, of Missoula, the beginning of a collection of mounted animals.

From Mr. Otto Schmidt, specimens of petrified moss from Missoula County.

From Mr. Amos Buck, Stevensville, three Golden Eagles.

DEPARTMENT OF MECHANICAL ENGINEERING.

There have been provided for the use of students in Mechanical Drawing six drawing tables. These accommodate two students each, and each contain four drawers provided with lock and key. Each table holds two drawing boards 36x25 inches.

WOOD SHOP.

A part of the basement of the University building is used for this purpose. It is well lighted and ventilated and contains 24 ft. by 52 ft. of floor space. It affords room for eight benches arranged for two students to work at each bench. Each bench is supplied with two sets of tools.

Each set of tools contains:

(1) 6" square, try and mitre combined.
(1) 8" bevel, (sliding).
(2) 8" marking gauges.
(1) Scriber.
Firmer chisels (8 in set.)
Gauges (4 in set.)
(1) 22" cross-cutting saw.
(1) 24" ripping saw.
(1) 8" drawing knife.

(1) Fore plane.
(1) Jack plane.
(1) Smooth plane.
(1) Set of auger bits.
(1) Bit brace.
(1) Set of brad awls.
(1) Carpenters hammer.
(1) Mallet.
(1) Nail set.

These are kept in lockers, each student having one set which he is to care for and use. Besides these, the shop contains the following tools which are for general use.

1 Framing square.
1 Beading plane.
1 Mitre box.
1 Matching plane.
1 Wood plow.
1 Grindstone and several oil stones.

DEPARTMENT OF LATIN AND GREEK.

This department is supplied with a set of Kiepert's Classical Maps; with Cybulski's colored wall charts; and a carefully chosen collection of lantern slides and mounted photographs for the illustration of Greek and Roman Archaeology and Private Life.

The library is supplied with the most important and essential works of reference for this department.

COLLEGIATE DEPARTMENTS OF INSTRUCTION.

Note—Roman numerals indicate the number of the course; Arabic, indicate the number of recitations per week. Courses extend through one semester.

COURSES OF STUDY IN THE DEPARTMENT OF HISTORY LITERATURE, AND PHILOSOPHY.

HISTORY.

I. Ancient and Mediaeval History. 4.

II. Modern European History. 4.

III. The History of England and the English Constitution. 4.

IV. American History, with especial reference to the development of Political, Social, and Industrial Institutions. 4.

V. Studies in Ancient History, including the Kingdoms of the East, Egyptian Civilization, the Grecian States, and the Roman Empire.

VI. The History of Civilization in Modern Europe.

LITERATURE.

I. Rhetoric--Exercises in Writing, Criticism of Themes. 4.

II. Rhetoric—Lectures and Recitations. Theme writing and criticism continued as in course I. 4.

III. English Literature—Lectures, Readings from representative Authors. Text-book: Minto's Manual of English Prose. 4.

IV. Theme study of some typical selections from Chaucer, Shakespeare, Browning, and Emerson. 4.

V. The English Drama—Its origin, structure, and development.

VI. English Literary Criticism--The reading and critical study of such authors as Jonson, Sidney, and Dryden, with reference to their literary theories and opinions.

PHILOSOPHY.

I. The Elements of Psychology—Especial prominence will be given to the practical phases of the subject as relates to Mind Culture. 3.

II. Ethics—Lectures and Recitations.—An attempt will be made to apply the scientific method to the investigation of the right in human conduct and individual relation. 2.

III. History of Philosophy. 4.

POLITICAL ECONOMY.

I. The Elements of Political Economy—The subject will be treated from the historical standpoint, and especial attention will be given to those subjects which directly relate to the industrial, social, and practical life of the people.

The instruction aims to train the student in probable reasoning; and to guard him against hasty generalization in those departments of the science where facts are not well determined and known. 4.

COURSES IN SCIENCE.

PHYSICS.

I. General Lectures—Mechanics, Heat, Electricity, Magnetism, Acoustics, and Optics. 4.

II. Continuation of Course. I. 4.

III. A course in Laboratory Practice—The Theory and Methods of Physical Measurements. Must be preceded by Course I. The equivalent of Stewart & Gee, Vol. I. 4.

IV. Electricity and Magnetism—Measurements and Application to the Industries. 4.

V. Mathematical Physics—Fundamental Equations of Theoretical Physics. Mathematical theory of sound, light, and electricity.

CHEMISTRY.

I. Descriptive Inorganic Chemistry: Lectures, Text Book and Laboratory Work. 4.

II. Qualitative Analysis, Lectures on Elementary Organic Chemistry with Laboratory Work. 4.

III. Advanced Inorganic Chemistry, Preparation of Commercial Compounds, etc., Organic Chemistry, Preparation and Study of Organic Compounds. Must be preceded by courses I and II.

IV. Quantitative Analysis—Volumetric and Gravimetric and applications to the analysis of ores, crude metals, slags, and technical products.

V. Course IV continued to include blowpipe analysis and assaying. Must be preceded by Courses I. and II.

SPECIAL COURSE IN CHEMISTRY AND ASSAYING.

The University offers a special course in Chemistry and Assaying to students prepared to undertake the work. Besides the preparation required for entrance to the Mechanical Engineering course of the Collegiate Department, the student who desires to begin this course must show a maturity which would indicate success in the work.

The aim is to make work of this department practical along the line of the chemical determinations which are called for in this state.

Instruction is given by lectures, text-books and recitations. In assaying it includes description of apparatus, reagents, assay furnaces, fuels, etc. The principles of sampling and assaying are discussed.

Representative ores are used, and instruction as to nature and proportion of fluxes.

Special and rapid method as employed by practical assayers are especially emphasized. Much time is given to practical work in assaying gold and silver ores.

The work in Chemistry includes general chemistry, qualitative, and quantitative analysis. In quantitative analysis special attention is given to methods for determining, lead, antimony, tin, arsenic, copper, zinc, etc.

The work in Chemistry and assaying is supplemented by a course in Physics, Mineralogy, and Geology.

The following indicates more specifically the required work, and the order in which it is taken.

First Year:—General Chemistry, Qualitative Analysis, Physics, Mathematics, and Mechanical Drawing.

Second Year:—Quantitative Analysis, Mineralogy, Assaying, Mathematics, Geology, and Mechanical Drawing.

MINERALOGY.

I. Lectures and Recitations—Characteristics of the different minerals, determinative mineralogy, the application of chemical tests,of blowpipe analysis, laboratory work. 3.

GEOLOGY.

I. Physiographic, Lithological, and Dynamical Geology—Lectures and recitations, identification of rocks. 5.

II. Historical Geology—The succession of the rocks of the globe, the records they contain as to the successive conditions of the earth. the changes in its oceans, continents,climate,life. Must be preceded by a course in Botany and Zoology. 5.

III. Economic Geology—A consideration of the topics usually classified under this subject.

BIOLOGY.

I. General Biology.—An introduction to the study of living things. It is designed to illustrate by the study of a few organisms the fundamental structure and properties of living matter. A series of animal and vegetable forms is studied in the laboratory, to harmonize with the recitations. Two recitations and four hours of laboratory per week. Scientific Course, Freshman year, first Semester.

II. General Botany. A study of types of plant life. This course is required of all students, with the intention (1) of introducing the student to the methods of laboratory work and to the use of laboratory apparatus; (2) to illustrate the general principles of Biology; (3) to give an introduction to the larger groups of plant life, and to give an idea of the scope of Modern Botany. Recitation, laboratory and field work. The course will give an intelligent idea of the subject to those who wish to pursue it further.

Scientific Course, Freshman year, Second Semester, Classical and Philosophical Courses, Sophomore year, Second Semester.

III. Structural Botany. Laboratory work, with some recitations. Must be preceded by Course II. Elective, either Semester.

IV. Systematic Botany. A study of the Flora of the region. To aid in this work the University herbarium of some 3,000 species is at the disposal of students. The flora of the immediate vicinity is rich both in species and specimens, offering excellent inducements. Must be preceded by Course II. Elective.

V. Invertebrate Zoology. A general course in the morphology and classification of invertebrates. Laboratory and class work. Dissection

of typical invertebrates, such as grantia, leucosolenia, metridium, pennaria, companularia, sea urchin, starfish, squid, lobster, earthworm, nereis, king crab, clam, etc. In this, as in other work in the department, accurate drawings are required. At the close of the semester a thesis is presented, written on some topic in connection with the work. Elective.

VI. Vertebrate Zoology. A continuation of the work begun in Course V. Dissections of typical vertebrates, with study of skeletons and organs. Elective.

VII. Physiolgy. To enter this course the student must have a fair knowledge of Physics and Chemistry. Laboratory and class work, using as a guide Martin's Human Body. Experiments on foods, a study of food products, a study of organs. The work in this course will be made as practical as possible. Elective.

VIII. Entomology. A course on the anatomy, morphology, and classification of insects. Largely laboratory work, with occasional lectures.

THE DEPARTMENT OF LATIN AND GREEK.

GENERAL INFORMATION.

1. The primary aims of this department are the acquisition of such a mastery of the languages as to enable the student to read them with some degree of facility, to read the greatest possible amount of the best Greek and Roman literatures, and to make the work subservient to general culture in the English language and literature.

The scope of this department is conceived to include, not only the study of the language and literature of the ancient Greeks and Romans, as narrowly defined, but also some attention to all phases of their civilization. Without this broader view, some of the most important results of classical studies cannot be attained. For this reason, the study of the arts, institutions, and life of the Greeks and Romans will be given due prominence; and provision has been made for this part of the work.

2. In the required courses, the study of grammar will be pursued in connection with the reading, not as an end in itself, but as a means of intelligently reading the language, with or without translation. The more systematic and scientific study of grammar will be provided for in elective courses.

3. In connection with the prose reading, exercises in writing Latin and Greek will be used. The training in syntax will be largely given in connection with this work.

4. There will be almost daily practice in reading and translating at sight, generally from that portion of the text assigned for the next day's reading.

5. Bennett's Latin Grammar" and "Hadley-Allen's Greek Grammar" will be used for the ordinary class room work. Editions of the texts read will be chosen as far as possible from those which have references to these grammars. Students are advised to bring with them any Latin and Greek text books they may have; but not to purchase books before definite directions are given. The most essential aids for study, such as maps, charts, and works of reference, are provided by the University.

6. The work of the college courses outlined below will be advanced as fast as it seems practicable to advance the requirements for admission, and should not be regarded as presenting the ultimate standard or ideal.

COURSES IN LATIN.

I. Vergil's Aeneid—First three books, elements of prosody. 4.
II. Vergil's Aeneid—Books IV., V., and VI. 4.
III. Horace—First half, selected odes. 4.
Cicero—Second half, essays, letters.
IV. Livy and Tacitus—Selections. 4.
V. Horace—First half, selected Satires and Epistles. 4.
Plautus and Terence—Second half, one play from each.

VI. Private Life of the Romans. Descriptive, no knowledge of Latin required for this course, open to all students. 4.
VII. Rapid Reading Course, selected from Latin poetry. 4.
VIII. Rapid Reading Course, selected from Latin prose. 4.
IX. Roman Archaeology, elective in last semester of Senior Year open to all students. 2.

COURSES IN GREEK.

I. A First Greek Book; elements of Greek Grammar. 5.
II. First Book of Anabasis; sight reading, writing Greek; study of Grammar in connection with the reading and writing. 5.
III. Anabasis continued; sight reading; writing Greek; grammar with topical outlines. 4.
IV. Homer's Iliad, selections. 4.
V. Homer Continued—First half, selections from Odyssey. 4.
Herodotus and Thucydides—Second half, selections.
VI. Plato—First half, selections. 4.
Demosthenes—Second half, selections.
VII. Greek Dramatists—One play each from Aeschylus, Sophocles, and Euripides, selections from Aristophanes. 4.
VIII. Greek Archaeology, elective in first semester of Senior Year, open to all students. 3.
IX. Private Life of the Greeks—Descriptive, no knowledge of Greek required for this course, open to all students. 4.

DEPARTMENT OF MATHEMATICS.

The subjects in Mathematics required of all students are Geometry and Trigonometry. In addition to these, students in the Engineering Course must take Higher Algebra, Analytical Geometry, and Differential and Integral Calculus. For elective work see Courses in Mathematics. Courses must be taken in the order given; except that students may elect the Calculus without having had the Analytical Geometry, and course VII may be taken immediately after Course I.

COURSES IN MATHEMATICS.

I. Geometry. 4.

II. Trigonometry. 4.

III. Higher Algebra. Indeterminate Coefficients, Loci of Equations, Horner's Method of Approximation, Series, etc. 4.

May be elected by students in Classical, Philosophical, and Scientific Courses.

IV. Analytical Geometry. 5.

V. Differential and Integral Calculus. 3.

VI. Differential and Integral Calculus. 3.

VII. Problems in Geometry. Elective. Devoted entirely to original work. 1.

Courses IV, V, and VI may be elected by students in Classical, Philosophical, and Scientific Courses in either Junior or Senior year, and course VII by all students at any time after taking course I.

DEPARTMENT OF MODERN LANGUAGES.

GERMAN.

I. and II. This first year is devoted to the study of Grammar (Joyne's Meissner), and Joyne's German Reader. 5.

III. and IV. During this year a select course of reading is followed with exercises in compositon and conversation. Essays in the German language. 4.

V. and VI. (Elective Junior year.)

Reading of German Classics and scientific monographs. Recitations will be required to be made in the German language. Essays will be required during this year. 5.

FRENCH.

I. and II. This first year is devoted to French Grammar (Chardenal's Complete Course); Reading (3 Contes Choises, Daudet; Mercinies, Colomba, etc.) 5.

III and IV. Readings; translations of various selections from classical and modern writers, with a study of syntax, idioms, etc., and with exercises in conversation and compositions. Essays in French are required. 4.

V. and VI. (Elective Junior Year.)

Reading of French Classics and scientific writings; Recitations in the French language. Essays in French will be required.

SCIENTIFIC FRENCH.

The primary object of this course is to give the student a reading knowledge of the language.

I. Grammar (Edgren's), Bercy's Reader, after which Herdlers Scientific French Reader will be used. This course is required by the students in the school of Mechanical Engineering.

SPANISH.

A 2 years course in Spanish has been laid out.

I. and II. (Elective Junior Year.)

Devoted to the study of Grammar, with some easy reading and translations from Modern prose.

III. and IV. (Elective Senior Year.)

Reading of Spanish Classics; study of Spanish literature; study of syntax and idioms; exercises in composition and conversation.

Recitations required in the Spanish language in the second semester.

DEPARTMENT OF MECHANICAL ENGINEERING.

This department makes a specialty of those technical branches belonging to Engineering; and furnishes a systematic and progressive education in the use of tools, machinery and materials, combined with as much theoretical instruction as will furnish a thorough knowledge of the principles involved. The description of work given below includes the special work required in this department only. For the general work of this department and the arrangement of the work in years see tabular statement of the Mechanical Engineering Course.

DRAWING.

Drawing commences in the Preparatory year and continues throughout the college course. Instruction in Free Hand Draw-

ing is given in the Preparatory year. It includes drawing from copy and model, perspective, drawing from objects, and free hand sketches of machinery. These sketches will be used for instrumental drawing later in the course. The work in the Freshman and Sophomore years consists of drawing from copies and models, and practice in drawing sections of various parts of machines, such as screw-threads, etc.

In the Junior year drawings for use in the pattern shop will be required. These consist of free hand sketches of machinery, drawn to scale in the drawing room and making a full working drawing that can be used in the shops.

In the Senior year, the work required will be the designing of engines and machinery,—the students original idea in the building of special machinery will then be brought out. Lettering, symbolic hatching, line shading, tinting, tracing and blue printing receive attention during the course.

SHOP WORK.

Shop practice begins in the second term of the Freshman year. During the first term, lectures in wood working machinery are given. Goss' Bench Work in Wood is used as a text to familiarize the student with the uses and the care of carpenter's tools. During the second semester, the knowledge thus gained is put to practice in the wood working shop.

The course in the Wood Shop will consist of exercises, such as sawing, planing, joining, splicing, mortising, dove-tailing, framing and paneling. All the operations of carpentry are thus taught. These exercises are followed by those in turning. The course laid out will begin in the 1st semester of the Sophomore year, and will consist of exercises in the turning of wood, such as cylinders, beads, and cups to a given size, and exercises which involve the use of chucks and face plates. When the student has completed this course in turning, he will take up pattern making, molding, and casting, the drawings for this having been made in

the drawing room by the students. Lectures in pattern making, moulding, and casting will be given during the 2d semester of the Freshman year. The 2d semester of the Sophomore will be taken up in bench work or vise work in iron, such as filing, chipping, key fitting, etc., both in iron and steel. After these exercises will come machine work, such as turning screw threads of certain pitch, turning cylinders, boring, planing and the common exercises in this line of work. Students will be required to forge their own tools, grind them and keep them in good order.

The special courses of this department are the following: (As elsewhere courses extend through one semester unless otherwise stated.)

Mechanical Drawing.
Courses I, II, III, IV. 4.
Courses V, VI, VIII. 6.
Course VII. 10.
Lectures in Wood Work. 2, 15 weeks.
Lectures in Pattern Making.
Lectures in Molding and Casting. 3, 10 weeks.
Laboratory Practice.
Courses I, II, III, IV. 6.
Courses V, VI. 4.
Descriptive Geometry. 5, 8 weeks.
Steam Boilers. 3, 12 weeks .
Analytical Mechanics. 5.
Elements of Mechanics. 5.
Metallurgy. 3, 10 weeks.
Steam Engine. 2, 10 weeks.
Hydraulics. 3, 10 weeks.
Strength of materials. 5.
Thesis Work (Laboratory). 4.

COLLEGIATE COURSES OF STUDY.

The University offers the following general courses of instruction:

A.—A Classical course, leading to the Degree of A. B.
B.—A Philosophical course, leading to the Degree of B. Ph.
C.—A General Science course, leading to the Degree of B. S.
A course in Mechanical Engineering Leading to the degree of B. M. E.

The work of the year is divided into two equal Semesters. For convenience in classification,the work of each department of study is divided into courses and fractional courses. One course means the equivalent of one hour's lecture or recitation five times a week for one semester. Two hours of laboratory work counts the same as one of lecture or of recitation. In the absence of any definite statement the Faculty reserves the right to prescribe the order in which the different courses shall be taken. At least twenty-six full courses as here defined are required for graduation in any of the departments of the University. A student's choice of elective work is subject to the approval of the Faculty, which reserves the right of refusing to give any elective course for which there are less than three approved applicants.

ADMISSION TO COLLEGIATE COURSES.

Candidates for admission to any of the collegiate Courses of the University must be at least sixteen years old and present satisfactory evidence of good moral character.

Those who have been members of other Colleges and Universities must bring certificates of honorable dismissal.

For admission to the courses leading to the degree of A. B., Ph. B., and B. S., the applicant must present the equivalent of the following courses found in the Preparatory Department. (See page 39.)

Mathematics—Courses I., II., III., IV.
Latin—Courses I., II., III., IV.
English—Courses I., II., III., IV.
Science—Course II.
History and Civics—Courses I., II.

For admission to the course in Mechanical Engineering.

Mathematics—Courses I., II., III., IV.
English—Courses I., II., III., IV.
History and Civics—Courses I., II.
Drawing—Courses I., II.

GRADUATION AND DEGREES.

In order to secure the recommendation of the Faculty for graduation from the University in any of the respective lines of work that have been outlined, it is necessary for the student to complete the equivalent of at least twenty-six full courses as already defined in the section concerning collegiate courses.

That the needs and special inclinations of the different students may be consulted as far as possible, certain of these courses are required for each of the respective degrees and the rest are left for the student's selection.

The following is a statement of the amount of required work for the different degrees and the number of elective courses allowed.

FOR THE DEGREE OF A.B.

In Latin, I., II., III., IV., V., VI.	4	4-5	full	courses
*" Greek, I., II., III., IV., V., VI., VII., IX.	6	4-5	"	"
" Mathematics, I., II.	1	3-5	"	"
" History, I., II.	1	3-5	"	"
" Literature, III., IV.	1	3-5	"	"
" Political Economy, I.		4-5	"	"
" Psychology and Ethics, I., II.	1		"	"
" Physics, I., II.	1	3-5	"	"
" Chemistry, I.		4-5	"	"
" Biology, II.		4-5	"	"
Electives.	4	4-5	"	"
Total	26	1-5	"	"

*See statement in tabular view beyond of classical course.

FOR THE DEGREE OF B. Ph.

In Latin, I., II,. III., VI.	3	1-5	full	courses
" Greek, IX. Descriptive course.		4-5	"	"
" German or French, I., II., III., IV.	3	3-5	"	"
" History, I., II., III., IV.	3	1-5	"	"
" Literature, III., IV.	1	3-5	"	"
" Political Economy, I.		4-5	"	"
" Psychology and Ethics, I., II.	1		"	"
" History of Philosophy.		4-5	"	"
" Physics, I., II.	1	3-5	"	"
" Chemistry, I.		4-5	"	"
" Biology, II.		4-5	"	"
" Mathematics, I., II.	1	3-5	"	"
Electives.	6	2-5	"	"
Total.	26	1-5	"	"

FOR THE DEGREE OF B. S.

In Mathematics, I., II.	1	3-5	full	courses
" German and French, I.	5	3-5	"	"
" History, I., II.	1	3-5	"	"
" Literature, III., IV.	1	3-5	"	"
" Political Economy, I.		4-5	"	"
" Psychology and Ethics, I., II.	1		"	"
" Chemistry, I., II.	1	3-5	"	"
" Physics, I., II.	1	3-5	"	"
" Biology, I., II., III.	2	2-5	"	"
" Geology, I.	1		"	"
" Mineralogy, I.		3-5	"	"
Electives.	7	1-5	"	"
Total.	26	3-5	"	"

FOR THE DEGREE OF B. M. E.

In Mathematics, I., II., III., IV., V., VI	4	3-5	full	courses
" Scientific French, I.		4-5	"	"
" History, I., II.	1	3-5	"	"
" Political Economy, I.		4-5	"	"
" Chemistry, I., II.	1	3-5	"	"
" Physics, I., II.	1	3-5	"	"
" Metallurgy, I.		2-5	"	"
Total.	11	2-5	"	"

For the technical work required in this course see page 36 in tabular statement.

THE CLASSICAL COURSE.

Roman numerals indicate courses; Arabic, hours per week.

FRESHMAN YEAR.

First Semester.	*Second Semester.*
Geometry, I. 4.	Trigonometry, II. 4.
History, I. 4.	History, II, 4.
Latin, I. 4.	Latin, II. 4.
*Greek, I. 5.	Greek, II. 5.

SOPHOMORE YEAR.

First Semester.	*Second Semester.*
Higher Algebra, III. or Rhetoric, I. 4.	Botany, II. 4.
Latin, III. 4.	Latin, IV. 4.
Greek, III. 4.	Greek, IV. 4.
Physics, I. 4.	Physics, II. 4.

JUNIOR YEAR.

First Semester.	*Second Semester,*
Latin, V. 4.	Roman Life, VI. 4.
Greek, V. 4.	Greek, VI. 4.
English Literature, III. 4.	English Literature, IV. 4.
Chemistry, I. 4.	Elective, 4.

SENIOR YEAR.

First Semester.	*Second Semester,*
Greek, VII. 4.	Greek Life, IX. 4.
Ethics, II. 2.	Political Economy, I. 4.
Pyschology, I. 3.	Electives, 8.
Electives, 8.	

* The following substitutes will be allowed: For Freshman and Sophomore, German or French; for Junior and Senior years any approved electives. Those who take Greek in Freshman year are expected to continue it at least two years.

THE PHILOSOPHICAL COURSE.

Roman numerals indicate courses; Arabic, hours per week.

FRESHMAN YEAR.

First Semester.	*Second Semester.*
Geometry, I. 4.	Trigonometry, II. 4.
History, I. 4.	History, II. 4.
Latin, I. 4.	Latin, II. 4.
German, I., or French, I. 5.	German, II., or French, II, 5.

SOPHOMORE YEAR.

First Semester.	*Second Semester.*
Higher Algebra, III., or Rhetoric, I. 4.	Botany, II. 4.
Latin, III. 4.	Roman Life, VI. 4.
German, III., or French, III. 4.	German, IV., or French, IV. 4.
Physics, I. 4.	Physics, II. 4.

JUNIOR YEAR.

First Semester.	*Second Semester.*
History, III. 4.	History, IV. 4.
English Literature, III. 4.	English Literature, IV. 4.
Chemistry, I. 4.	Electives, 8.
Elective, 4.	

SENIOR YEAR.

First Semester.	*Second Semester.*
Ethics, II. 2.	Greek Life, IX. 4.
Psychology, I. 3.	Political Economy, I. 4.
History of Philosophy, III. 4.	Electives, 8.
Electives, 8.	

THE SCIENTIFIC COURSE.

Roman numerals indicate courses; Arabic, hours per week.

FRESHMAN YEAR.

First Semester.	*Second Semester.*
Geometry, I. 4.	Trigonometry, II. 4.
History, I. 4.	History, II. 4.
German, I., or French, I. 5.	Biology, II. 4.
Biology, I. 4.	German II., or French, II. 5.

SOPHOMORE YEAR.

First Semester.	*Second Semester.*
Higher Algebra, III., or Rhetoric, I. 4.	German, IV. 4., or II. 5.
German, III. 4., or I. 5.	Biology, V. 4.
Physics, I. 4.	Physics, II. 4.
French, III. 4., or I. 5.	French, IV., or II. 5.

JUNIOR YEAR.

First Semester.	*Second Semester.*
Chemistry, I. 4.	Chemistry, II. 4.
English Literature, III. 4.	English Literature, IV. 4.
Electives, 8.	Electives, 8.

SENIOR YEAR.

First Semester.	*Second Semester.*
Ethics, II. 2.	Political Economy, I. 4.
Psychology, I. 3.	Geology, I., II. 5.
Mineralogy, I. 3.	Electives, 8.
Electives, 8.	

THE MECHANICAL ENGINEERING COURSE.

Roman numerals indicate courses; Arabic, hours per week.

FRESHMAN YEAR.

First Semester.	*Second Semester.*
Geometry, I. 4.	Trigonometry, II. 4.
History, I. 4.	History, II. 4.
*Mechanical Drawing, I. 4.	Mechanical Drawing, II. 4.
Lectures on Wood work, 2, 15 wks	Pattern Making, 3, 10 weeks.
*Laboratory Practice, I. 6.	Laboratory Practice, II. 4.

SOPHOMORE YEAR.

First Semester.	*Second Semester.*
Higher Algebra, III. 4.	Analytical Geometry, IV. 5.
Mechanical Drawing, III. 4.	Mechanical Drawing, IV. 4.
Descriptive Geometry, 5, 8 weeks	Scientific French, 4.
Physics, I. 4.	Physics, II. 4.
Laboratory Practice, III. 6.	Laboratory Practice, IV. 6.

JUNIOR YEAR.

First Semester.	*Second Semester.*
Calculus, V. 3.	Calculus, VI. 3.
Steam Boilers, 3, 12 weeks.	Analytical Mechanics, 5.
Graphical Statics, 2.	Chemistry, II. 4.
Chemistry, I. 4.	Drawing, VI. 6.
Drawing, V. 6.	Laboratory Practice, VI. 4.
Laboratory Practice, V. 4.	

SENIOR YEAR.

First Semester.	*Second Semester.*
Elements of Mechanics, 5.	Political Economy, I. 4.
Metallurgy, 3, 10 weeks.	Hydraulics, 3, 10 weeks.
Steam Engine, 2, 10 weeks.	Drawing, VIII. 6.
Drawing, VII. 10.	Strength of Materials, 5.
	Thesis Work (Laboratory), 4.

* Two hours Drawing and Laboratory practice count as one of lecture and recitation work.

THE PREPARATORY DEPARTMENT.

It is supposed that the average student will complete the work of the Preparatory Department in two years, if due diligence is employed. The arrangement of semesters and courses is just the same as in the college, except that there are no electives. Each collegiate course has its appropriate preparatory work.

COURSES OF INSTRUCTION.

MATHEMATICS.

I. Arithmetic. With special attention to Fractions, Percentage, and the Metric System of Weights and Measures. First Semester. 5.
II. Elementary Algebra. Second Semester.5.
III. Algebra continued. First Semester. 5.
IV. Plane Geometry. Second Semester. 5.

SCIENCE.

I. Physiology, (Optional.) 3.
II. Physical Geography. 3.

ENGLISH.

I. English Grammar Reviewed. 5.
II. Grammar and Compositon. 5.
III. Rhetoric. Elements of. 5.
IV. American Literature.3.

LATIN.

The following general remarks are here made to avoid unnecessary repetitions under the courses outlined below.

1. The Roman pronunciation will be used. Pains will be taken to form habits of correct pronunciation. In this connection, the points to be especially emphasized are that long vowels shall be pronounced as long; also that every consonant shall be

distinctly enunciated. For preparatory work it is very desirable to use texts which have the long vowels marked.

2. Bennett's grammar will be used and pupils are expected to master the elements of Latin grammar, at least as presented in the coarser print of this book.

3. In the preparation of pupils for the University courses, teachers throughout the state are earnestly requested to take pains to form habits of correct pronunciation; and to have almost daily some exercise in reading and translating at sight and in writing Latin. The importance of these points can scarcely be overestimated.

I. A first Latin book; elements of Grammar; reading of selections from easy Latin prose. 5.

II. Caesar's Gallic War, second book (Collar's "Gate to Caesar" or a similar work will be used); sight reading; writing Latin; study of Grammar continued by references from the text read and in connection with the composition work. 5.

III. Caesar's Gallic War continued; sight reading; writing Latin, study of Grammar continued as in II. 5.

IV. Cicero's selected Orations and letters; sight reading; writing Latin; topical outlines in Grammar in addition to the work of II, and III. 5.

HISTORY.

I. U. S. History. 5.

II. Civics of the U. S. and of Montana. 5.

FREE HAND DRAWING.

I. Principles of free hand drawing. From geometric solids. (a) In outline. (b) In charcoal. 2.

II. (a) Groups of common objects, as books, vases, chairs, tables, etc. (b) Casts of ornament. (c) Interior, as corner of a room.

Design for capital, panel, etc., and original design for surface, decoration in color. 2.

ADMISSION TO THE PREPARATORY.

Applicants for admission to the Preparatory Department should be at least fourteen years old, and well grounded in the elements of an English education. They must be able to pass a creditable examination in the elements of Arithmetic, Elementary Grammar, Geography, Reading, and Spelling.

THE PREPARATORY DEPARTMENT.

FIRST YEAR.

First Semester.	*Second Semester.*
Arithmetic, I. 5.	Algebra, II. 5.
English Grammar, I. 5.	Composition, II. 5.
U. S. History, I. 5.	Civil Government, II. 5.
Latin, I. 5.	Latin, II. 5.

SECOND YEAR.

First Semester.	*Second Semester.*
Algebra, III. 5.	Geometry, IV. 5.
Rhetoric, III. 5.	Literature, IV. 3.
Latin, III. 5.	Latin, IV. 5.
Drawing, I. 2.	Drawing, II. 2.
Physiology, I. 3. (Optional.)	Physical Geography, II. 3.

THE DEPARTMENT OF MUSIC.

The Department of Music in the University of Montana is under the direction of Mrs. Walter Whitaker, a teacher of many years successful experience both in England and America.

Instruction is given in Pianoforte and organ playing, voice

culture and ballad singing, part singing and singing at sight. Very considerable progress has been made during the past year by the great majority of the pupils in the various grades. Elementary, Intermediate and Advanced Musicales, with Lectures by the Professor are held at frequent intervals and are participated in by the more diligent students in the classes. This is found to be of decided benefit to pupils who otherwise might be lethargic or of careless habits of playing and singing. They are free, open to the public and are largely attended and well appreciated. The fees in the Department of Music, are quite moderate and may be had on application.

ROLL OF STUDENTS.

Jessie Bernice Ambrose	Missoula.
John Frederick Anderson	Missoula.
Esther Maria Avery	Stevensville.
Charles Earle Avery	Stevensville.
Louise Baker	Grantsdale.
Julia Baker	Grantsdale.
Frances Elmer Baker	Ovando.
George Allen Baker	Missoula.
Alice Corey Bardwell	Missoula.
Louise Bertha Basler	Knapp, Wisconsin.
Lillian Albertha Beauchaine	Missoula.
Emma Sophia Beckwith	Missoula.
Robert Bell	Stevensville.
Zoe Bellew	Missoula.
Edith Bickford	Missoula.
Harold Niles Blake	Ft. Missoula.
Abbie Blonger	Granite.
Lenita Joseaphiena Bonner	Missoula.
Charles Bonner	Granite.
Charlotte Beatrice Boos	Missoula.
Ida May Brandis	Gibbonsville, Idaho.
Mary Gertrude Buckhouse	Ft. Missoula.
Joseph Buckhouse	Ft. Missoula.
Mae Burtch	Pageville.
Florence Emily Chapman	Stevensville.
Frank Chapman	Stevensville.
John Stewart Clark	Hamilton, Ontario.
John F. Cox	Duluth, Minn.
Mary Amanda Craig	Missoula.
William Oscar Craig	Missoula.
Fred Orville Crain	Missoula.
Caroline Harrington Cronkrite	Missoula.
Eva May Dobbins	Stevensville.
Allen Floyd Dougherty	Stevensville.
Sophia Evans	Victor.
Georgina Sarah Fenwick	Bonner.
Michael Flynn	Missoula.
James Flynn	Missoula.
Thomas Arthur Fulkerson	Stevensville.
Ella Robb Glenny	Missoula.
Hugh Alexander Graham	Bonner.

Anna Ruth Gray	Montrose, Colorado.
Roselvo Eaton Hall	Glasgow.
Bertha Percilla Hammond	Ovando.
Charles Hansen	Butte.
Gladys Margaret Hanson	Missoula.
Charles Oliver Harnois	Helena.
Julia Harris	White Sulphur Sprgs.
Edwin Stewart Hatheway	Missoula.
Gertrude Maude Hatheway	Missoula.
Anna Louise Hatheway	Missoula.
Josephine Lister Hatheway	Missoula.
Miriam Hatheway	Missoula.
Daniel Heyfron	Missoula.
Gilbert Joseph Heyfron	Missoula.
Pleasie Hodgin	Livingston.
Anna Hollensteiner	Lo Lo.
Kathleen Myrtle Hughes	Butte.
Isabella Jamieson	Missoula.
Frank Atholstan Jones	Missoula.
Jason Jared Jones	Corvallis.
Walter Julian	Stevensville.
May Florence Kemp	Missoula.
Lynn Kennedy	Missoula.
Hugh Clement Kennedy	Missoula.
George Hempstead Kennett	Missoula.
Helene Augusta Kennett	Missoula.
Eloise Knowles	Missoula.
Hilda Knowles	Missoula.
Lu Knowles	Missoula.
Helen Marie La Caff	Carlton.
William Nice Landers	Missoula.
Frank Latimer	Grass Valley.
John Reuben Latimer	Grass Valley.
Dora Christian Lehsou	Missoula.
Belle Mata Libby	Missoula.
Amanda Christine Loffness	Missoula.
Bertha Logan	Missoula.
Florence Anna Long	Rossland, B. C.
Minnie Celinda Lord	Darby.
Maria Stewart Loughborough	Ft. Missoula.
Jessie Hamilton MacKellar	Billings.
Alverda MacMurphey	Hamilton.
Fanny Inez Maley	Missoula.
Julia Lina Manheim	Missoula.
Emily Miriam Marshall	Missoula.

Claude Jay McAllister	Missoula.
George McCauley	Ft. Missoula.
Charles McCauley	Ft. Missoula.
Robert McCauley	Ft. Missoula.
Estella May McClain	Carlton.
Albert Percy McClain	Carlton.
Honora McCormick	Missoula.
Helen McCrackin	Hamilton.
Henry Patrick McDermott	Ft. Missoula.
Agnes McDonald	Missoula.
Albert Homer McDonald	Potomac.
Alexander Grant McGregor	Stevensville.
John McPhail	Kalispell.
Samantha Evaline Meador	Corvallis.
Edward Miller	Ft. Missoula.
Lydia Jimmie Mills	Lo Lo.
Grace Ethel Moore	Missoula.
William Larkin Murphy	Missoula.
Lois Aletta Newport	Bonner.
Charles Herndon Officer	Stevensville.
Howard Cobourne Packer	Lo Lo.
Edna Mockbee Parsons	Missoula.
Emily Pittman	Keokuk, Iowa.
Charles Pixley	Missoula.
Ethel Maude Rakestraw	Missoula.
Jeanette Pickering Rankin	Missoula.
Lulu Brainerd Rathbun	Missoula.
Percy Shelley Rennick	Missoula.
Harriet Sarah Reid	Missoula.
Lloyd Reimel	Hamilton.
Lula Beulah Rheim	Missoula.
Clifford Hammond Rittenour	Missoula.
Sidney Samuels	Missoula.
Howard Lewis Schroeder	Missoula.
John Ellis Sedman	Missoula.
Guy Emerson Sheridan	Missoula.
Bertha Almeada Simpson	Stevensville.
Bertie Douglas Slaughter	Missoula.
Edward Slocum	Stevensville.
William H. Smead	Missoula.
Patrick Spillane	Rock Creek.
Gustavus Adolphus Steward	Ft. Missoula.
Theophilus Bolden Steward	Ft. Missoula.
Benjamin Duane Stewart	Missoula.
Burtch Swigert	Corvallis.

GEORGE ELI TAYLOR.....Missoula.
ALLIE THOMPSON.....Donnan, Iowa.
MINNIE VAUGHN.....Missoula.
MARY ELLEN WALLS.....Hamilton.
SIDNEY MIRE WARD.....Hamilton.
GEORGE BUTLER WESTBY.....Missoula.
NETTIE WILES.....Virginia City.
HATTIE FLORENCE WILLIAMS.....New Chicago.
NETTIE MAY WILLIAMSON.....Stevensville.
ALICE WOODY.....Missoula.
FLORA PYRENE WOODY.....Missoula.
EDITH VERNON WILSON.....Florence.

DEPARTMENT OF MUSIC.

SADIE BECKWITH.....Missoula.
LENITA BONNER.....Missoula.
BESSIE BUCKLEY.....Missoula.
BESSIE CLYNICK.....Bonner.
JENNIE DARBEE.....Missoula.
MARGARET EDWARDS.....Missoula.
HELEN EDWARDS.....Missoula.
GEORGINA FENWICK.....Bonner.
HATTIE FENWICK.....Bonner.
NELLIE FLYNN.....Grass Valley.
NELLIE FOOTE.....Missoula.
MRS. FOX.....Missoula.
ABBEY FITZGERALD.....Martina.
PAUL GREENOUGH.....Missoula.
BERTHA HAMMOND.....Ovando.
ALICE HATHEWAY.....Missoula.
HARRIETT HORD.....Missoula.
AGNES HUGHES.....Missoula.
MAY KEMP.....Missoula.
ETHEL KENDALL.....Missoula.
ADA KENDALL.....Missoula.
HELEN LACAFF.....Carlton.
PEARL LEEDY.....Missoula.
DORA LEHSOU.....Missoula.
JULIA MANHEIM.....Missoula.
FAY MURRAY.....Missoula.
NETTIE OWENS.....Missoula.

Edna Parsons	Missoula.
Esther Pulliam	Missoula.
Mrs. Press	Missoula.
Jeanette Rankin	Missoula.
Hattie Rankin	Missoula.
Wellington Rankin	Missoula.
Lulu Rathburn	Missoula.
Annabel Ross	Missoula.
Edward Simons	Missoula.
Geneva Simons	Missoula.
Lizzie Schilling	Missoula.
Harry Schreiber	Missoula.
Dora Shively	Missoula.
Helen Shively	Missoula.
Margaret Stevens	Missoula.
Minnie Whitaker	Missoula.
May Walls	Hamilton.

TOTAL ENROLLMENT.

In regular College and Preparatory Classes	143
In the Department of Music	44
	187
Deduct, counted twice	11
Net Total	176

ACCREDITED HIGH SCHOOLS.

The State Board of Education in a meeting held June 1, 1896, took the following action:

1 Candidates seeking admission to any of the regular courses in any State Educational Institutions must be at least sixteen years of age and must possess a good moral character and good bodily health.

2. Accredited Schools.—Any high school or academy whose course of instruction covers the branches requisite for admission to one or more of the courses of any State Educational Institution may be admitted to its accredited list of preparatory schools, after a satisfaction examination by a committee appointed by the State Board of Education. Application for such examination may be made by any school board to the Secretary of the State Board of Education, whereupon a committee appointed by the State Board of Education will examine the course of study and methods of instruction of the school, and on the committee's favorable recommendation, and the concurrence of the State Board of Education, it will be entered upon the accredited list of the State Educational Institution for which it applied. Any graduate of such an approved school will be received by the President of the State Educational Institution wherein said graduate is entitled to enter, on presentation of proper diploma and certificate from the Superintendent of said school, into any of the courses of said institution for which said graduate has been fitted.

Students of an accredited school who are not graduates must expect examinations as other candidates.

A school once entered upon the accredited list will remain there until its administration is changed, or until notice is given by the State Board of Education of unsatisfactory results. Upon a change of administration application for continuation upon the list, if desired, must be made. If the work of the principal com-

ing into charge has been recently examined in connection with some other school, a new examination may not be required, but such examination should in all cases be invited.

Annual reports will be asked for by the State Board of Education from all accredited schools.

LIST OF ACCREDITED SCHOOLS.

CITY.	SUP'T.
Helena	J. E. KLOCK.
Butte	J. P. HENDRICKS.
Great Falls	E. O. MARSH.
Anaconda	M. A. STAPLETON.
Missoula	J. M. HAMILTON.

MISCELLANEOUS.

CHAPEL EXERCISES.

All students are expected to attend the Chapel exercises which are held every morning at 10:15 A. M. except Saturday and Sunday.

SOCIETIES.

Two literary societies, the Hawthorne and the Clarkia, are open to students. The first named society is composed of young men and the second of young women. The Y. M. C. A. has an organization and in time will exert a very salutary influence. The Athletic Association is well organized and has a large membership of both young men and women.

PRIZES.

THE H. N. BUCKLEY ORATORICAL PRIZE.

Through the generosity of Dr. J. J. Buckley, of Missoula, this prize has been founded in memory of his father H. N. Buckley.

The amount of the prize is twenty dollars and this amount is

derived from a permanent investment made to secure its endowment. The conditions of the oratorical contest at which the prize is bestowed are subject to the control of the Faculty.

This prize was awarded in 1896 to Miss Anna Gray; in 1897 to Charles Pixley.

FEES AND DEPOSITS.

Preparatory, or any College Course, per year (Matriculation Fee)	$10.00
Physical Apparatus (deposit)	5.00
Qualitative Apparatus (deposit)	10.00
Quantitative Apparatus (deposit)	15.00
Assaying Apparatus (deposit)	15.00
Deposit. Biological Laboratory	5.00
Deposit for Material used in Shops. Course in Iron	5.00
Deposit for Material used in Shops. Course in Wood	3.00

EXPENSES.

There are no dormitories connected with the University, and students are expected to find rooms and board in private families. Good homes can thus be provided for all and at very reasonable rates. Expenses may be very materially lessened by the formation of boarding clubs. Students will not be allowed to board at places not approved by the Faculty.

UNIVERSITY SURROUNDINGS.

Missoula is located in Western Montana, on the main line of the Northern Pacific railroad and at its junction with the Bitter Root Valley and Coeur d'Alene branches, thus affording easy railroad connections with all parts of the state and the Northwest.

The city of Missoula is noted as being one of the most beautiful in the west; and is unexcelled as regards pure water, healthful surroundings, beautiful scenery, and all of those things that contribute to make student life pleasant and agreeable.

Situated at the head of the Missoula Valley and near the outlet of the Bitter Root Valley, it is within the limits of the great agricultural and fruit growing regions of the State.