3d

REGISTER

OF THE

Nevada State University

FOR 1889-90.

BOARD OF REGENTS.

Hon. E. T. GEORGE, - - -	Lewis
Hon. H. L. FISH, - - -	Reno
Hon. TRENMOR COFFIN,* - -	Carson

*Vice Hon. Thomas H. Wells, resigned, March, 1889.

Geo. H. Taylor, Secretary, - - - Reno

CALENDAR FOR 1890-91.

FIRST TERM.

The first term will begin Thursday, September 4th, 1890, and end Thursday, December 18th, 1890.

SECOND TERM.

The second term will begin Thursday, January 1st, 1891, and end Thursday, March 19th, 1891.

THIRD TERM.

The third term will begin Thursday, March 26th, 1891, and end Thursday, June 11th, 1891.

ANNUAL COMMENCEMENT,

JUNE 11th.

The annual public exercises of the Literary Societies are held in April.

FACULTY.

STEPHEN A. JONES, M. A., Ph. D., President,
Professor of the Latin Language and Literature.

HANNAH K. CLAPP, M. A.,
Preceptress and Professor of History, Rhetoric and English Literature.

WALTER McN. MILLER, B. Sc.,
Professor of Anatomy, Physiology and Geology.

ROBERT D. JACKSON, Ph. B.,
Professor of Mining and Metallurgy and acting Professor of Mathematics.

KATE N. T. TUPPER, B. Sc.,
Professor of Pedagogics and Principal of the Training School.

1st LIEUT. ARTHUR C. DUCAT, JR., 24th U. S. INFANTRY,
Professor of Military Science and Tactics, Modern Languages and Drawing.

W. S. DEVOL, B. Ag.,
Professor of Agriculture and Horticulture.

J. WARNE PHILLIPS, Sc. D.,
Professor of Physics and Chemistry.

FRED. H. HILLMAN, B. Sc.,
Professor of Entomology and Botany.

WILLIAM B. DAUGHERTY,
Instructor in Bookkeeping.

W. McN. MILLER,
Curator of Museum.

H. K. CLAPP,
Librarian.

ROSTER OF STUDENTS.

NAME.	SCHOOL DISTRICT.	COUNTY.
Abrahams, Florence	Reno	Washoe
Alt, James A	Glendale	Washoe
Andrews, Crissie H	Reno	Washoe
Applegate, Mollie	Glendale	Washoe
Atherton, Blanche	Carson	Ormsby
Barney, Lucy	Reno	Washoe
Barney, Wm. E	Reno	Washoe
Bates, George E	Reno	Washoe
Becker, George A	Reno	Washoe
Becker, Katherine	Reno	Washoe
Bell, Agnes	Reno	Washoe
Bishop, F. W	Reno	Washoe
Bishop, Harris	Reno	Washoe
Bradley, Maude	Deeth	Elko
Bristol, Fred. A	Reno	Washoe
Brown, Charles P	Brown's Station	Washoe
Caine, Edwin C	Reno	Washoe
Caughlin, Arthur	Reno	Washoe
Clark, Mary	Pyramid	Washoe
Clemons, Jay	Virginia City	Storey
Clow, Mary	Reno	Washoe
Coffin, Charles A	Reno	Washoe
Corwin, Grace L	Virginia City	Storey
Curnow, Matilda	Reno	Washoe
Cutting, Henry C	Reno	Washoe
Davis, Blanche	Carson	Ormsby
Dawson, Pearl	Reno	Washoe
Dickinson, Ben. F	Winnemucca Valley	Washoe
Dickinson, Clara	Winnemucca Valley	Washoe
Ede, Jeddie	Reno	Washoe
Ede, John G	Reno	Washoe
Ede, Stella	Reno	Washoe
Evans, Mary	Wadsworth	Washoe

NAME.	SCHOOL DISTRICT.	COUNTY.
Taylor, Clara A	Reno	Washoe
Titus, Clarence	Sacramento, Cal	Sacramento, Cal
Truscott, Maude	Gold Hill	Storey
VanDuzer, Arda	Reno	Washoe
VanDuzer, C. D	Reno	Washoe
VanReed, Mary	Reno	Washoe
Wallace, Mabel	Reno	Washoe
Warner, Thomas L	Reno	Washoe
Ward, Grace	Reno	Washoe
Webster, Stella M	Reno	Washoe
Webster, Wm., Jr	Reno	Washoe
Werner, Nevada	Empire	Storey
Wells, Maude	Reno	Washoe
Wheeler, Parlie	Reno	Washoe
Wilkes, Paul T	Reno	Washoe
Wright, Amelia	Brown's Station	Washoe
Wright, Sarah	Brown's Station	Washoe

CLASSIFICATION OF STUDENTS.

SCHOOL OF LIBERAL ARTS.

Alt, James A.
Bell, Agnes
Bishop, Harris
Bristol, Fred
Caine, Edwin C.
Cutting, Henry C.
Davis, Blanche
Fletcher, Lottie
Frey, Fred
Hardache, Berta
Hymers, Nell
Lewers, Charles R.
Martin, Harry
McIntosh, Gertrude
McIntosh, Grace
Morril, Fred
Norcross, Frank H.
Pearce, Nellie B.
Saben, Myrtle
Simpson, Iva
Stiner, Ina H.
VanDuzer, C. D.
Webster, Stella
Werner, Nevada
Wilkes, Paul

SCHOOL OF MINES.

Joy, Allen
Lawson, Otto
Lewers, A. M.
Miller, George
Pryor, F. O.
Sharpe, Albert
Shoemaker, John
Swan, Smith
Webster, Wm., Jr.

SCHOOL OF AGRICULTURE.

Barney, Wm. E.
Brown, C. P.
Stadtmuller, Fred

NORMAL DEPARTMENT.

Applegate, Mollie
Atherton, Blanche
Barney, Lucy
Becker, Katherine
Clark, Mary
Clow, Mary
Dawson, Pearl
Ede, Stella
Evans, Mary
Ford, Jessie
Frey, Francis
Joy, Helena
Kinney, Kate F.
Lane, Mary
Lemmon, Persia
Lewis, Louisa
Linn, Katherine
Litch, Clara
Mapes, Ida
McFarlin, Jennie
Morton, Adeline
Olcovich, Anne
O'Reilly, Margaret
Quadri, Ottilia
Rhodes, Hattie
Rulison, Nellie
Savage, Elizabeth
Shaber, Lottie
Snow, Julia M.
Taylor, Clara
Truscott, Maude
VanDuzer, Arda
Wallace, Mabel
Ward, Grace
Wright, Amelia
Wright, Sarah

THIRD TERM.

LATIN 4—Chase and Stuart's Cicero; Writing Latin.
GERMAN 4—Lessing's Minna von Barnhelm; Conversational German.
MATHEMATICS 5—Wentworth's Plane and Spherical Trigonometry.
CHEMISTRY 4—Laboratory—Shepard's Elements; Applied; Lectures.

JUNIOR YEAR.

FIRST TERM.

LATIN 4—Chase and Stuart's Cicero; Latin Prose Composition.
GERMAN 3—Schiller's Maria Stuart; Translating English into German.
PHYSICS 4—General Principles; Mechanics of Solids—Daniell.
HISTORY 3—Eastern Nations and Grecian History.
FRENCH, OR LAND SURVEYING 3.

SECOND TERM.

LATIN 4—Chase and Stuart's Virgil; Latin Prose Composition.
GERMAN 3—Schiller's Dreissigjahrige Krieg; Recitations in German from Wenckebach's Lesebuch.
PHYSICS 4—Hydrodynamics; Pneumatics; Heat; Thermodynamics; Acoustics; Light.
HISTORY 3—Roman.
FRENCH OR ANALYTICAL GEOMETRY 3.

THIRD TERM.

LATIN 4—Chase and Stuart's Virgil; Latin Prose Composition.
GERMAN 3—Goethe's Faust; Literaturgeschichte, with selected masterpieces from 19th century.
HISTORY 3—Medieval and Modern.
FRENCH OR LAND SURVEYING 3.

SENIOR YEAR.

FIRST TERM.

LATIN 4—Odes and Epodes of Horace; Latin Literature.
GEOLOGY 5—Le Conte's Elements.
ENGLISH LITERATURE 3—English Authors and Manuals.
FRENCH OR ASTRONOMY 5.

SECOND TERM.

LATIN 4—Satires and Ars Poetica of Horace; Latin Literature.
ANATOMY AND PHYSIOLOGY 5—Human and Comparative—Laboratory.
ENGLISH LITERATURE 3—History of English Language; Study of Words. Roget's Thesaurus; Shakespeare, one play.
FRENCH OR POLITICAL SCIENCE 5.

THIRD TERM.

LATIN 4—Germania and Agricola of Tacitus; Roman Antiquities.
ANATOMY AND PHYSIOLOGY 5—Experimental Physiology and Microscopy—Laboratory.
ENGLISH LITERATURE 3—English Authors; History of Civilization; Essays in Literary Criticism.
FRENCH OR POLITICAL SCIENCE 5.

Three themes per term will be required of each student in English.

SCHOOL OF MINES.

FRESHMAN YEAR.

FIRST TERM.

MATHEMATICS 5—Wentworth's College Algebra.
GERMAN OR FRENCH 4—Cook's Otto's German Grammar.
CHEMISTRY 4—Non-metals—Shepard's Elements.
DRAWING 8—Industrial.

SECOND TERM.

MATHEMATICS 5—Algebra continued.
GERMAN OR FRENCH 4—Cook's Otto's German Grammar; Writing Easy German.
CHEMISTRY 4—Metals—Shepard's Elements.
CHEMISTRY 8—Quantitative Analysis—Laboratory.
DRAWING 3—Industrial.

THIRD TERM.

MATHEMATICS 5—Algebra completed and Geometry begun; Wentworth's New Plane and Solid Geometry.
GERMAN OR FRENCH 4—Cook's Otto's German Grammar; Writing German.
CHEMISTRY 15—Quantitative Analysis—Laboratory.
DRAWING 6—Industrial.

The course in French is the same as that in the School of Liberal Arts.

SOPHOMORE YEAR.

FIRST TERM.

MATHEMATICS 5—Geometry continued.
GERMAN OR FRENCH 5—Schiller's Jungfrau von Orleans and Conversational German.
MINERALOGY 5.
PHYSICS 4—Daniell.
CHEMISTRY 6—Quantitative Analysis—Laboratory.

THIRD TERM.

MATHEMATICS 5—Trigonometry; Wentworth's Plane and Spherical Trigonometry.
GERMAN OR FRENCH 4—Lessing's Minna von Barnhelm; Conversational German.
CHEMISTRY 15- -Agricultural—Laboratory.
BOTANY 6—Structural and Systematic—Laboratory—Gray & Wood.

JUNIOR YEAR.

FIRST TERM.

ANATOMY AND PHYSIOLOGY 10—Human and Comparative—Laboratory.
PHYSICS 4—Daniell.
LAND SURVEYING 5—Gillespie's Land Surveying.
CHEMISTRY 9—Agricultural—Laboratory.

SECOND TERM.

ANATOMY AND PHYSIOLOGY 10—Experimental—Laboratory.
PHYSICS 4—Daniell.
AGRICULTURAL BOTANY 10—Microscopical and Physiological.
POLITICAL SCIENCE 5.

THIRD TERM.

ANATOMY AND PHYSIOLOGY 10—Microscopical—Laboratory.
PHYSICS 4—Daniell.
ECONOMIC ENTOMOLOGY 10—Laboratory.
POLITICAL SCIENCE 5.

SENIOR YEAR.

FIRST TERM.

ANATOMY OF DOMESTIC ANIMALS 15—Laboratory—Cheauveau.
AGRICULTURE 5—Emerson and Flint's Manual of Agriculture; Stuart's Irrigation for the Farm, Garden and Orchard.
STOCK FEEDING AND DAIRYING 2—Armsby's Manual of Cattle Feeding; Stuart's Dairyman's Manual.
STOCK BREEDING 3—Miles' Stock Breeding; Curtis' Horses, Sheep, Cattle and Swine.
SCIENCE 3—Elective.

SECOND TERM.

ANATOMY OF DOMESTIC ANIMALS 5—Laboratory—Cheauveau.
VETERINARY MEDICINE AND SURGERY 5—Law's Farmer's Veterinary Adviser.
FORESTRY 3—Fuller's Practical Forestry.
DRAWING 4—Industrial.
SCIENCE 3—Elective.

THIRD TERM.

FIELD PRACTICE IN AGRICULTURE 8—Farm and Garden Work.
VETERINARY MEDICINE AND SURGERY 5—Law's Farmer's Veterinary Adviser.
FRUIT CULTURE 5 Fuller's Small Fruit Culturist; Bailey's Field Notes on Apple Culture.
GARDENING 2—Henderson's Gardening for Profit.
THESIS 3—To consist of a thorough discussion of a subject approved by the Professor of Agriculture.
SCIENCE 3—Elective.

COMPARISON OF COURSES.

FRESHMAN YEAR.

Liberal Arts.	Hours per Week.	Mines.	Hours per Week.	Agriculture.	Hours per Week.
First Term.		*First Term.*		*First Term.*	
Latin	4	Chemistry	4	Chemistry	4
German	4	French or German	4	German or French	4
Mathematics	5	Mathematics	5	Mathematics	5
English	4	Drawing	8	Drawing	8
Second Term.		*Second Term.*		English	4
Latin	4	Chemistry	8	*Second Term.*	
German	5	German or French	4	English	4
Mathematics	5	Mathematics	5	German or French	4
English	4	Chemistry	4	Mathematics	5
Drawing	3	Drawing	3	Chemistry	4
Third Term.		*Third Term.*		Zoology	4
Latin	4	Chemistry	15	*Third Term.*	
German	4	German or French	4	Chemistry	10
Mathematics	5	Mathematics	5	German or French	4
English	4	Drawing	6	Mathematics	5
				Zoology	8

SOPHOMORE YEAR.

Liberal Arts.	Hours per Week.	Mines.	Hours per Week.	Agriculture.	Hours per Week.
First Term.		*First Term.*		*First Term.*	
Latin	4	Mineralogy	5	Geology	5
German	4	German or French	4	German or French	4
Mathematics	5	Mathematics	5	Mathematics	5
Chemistry	4	Chemistry	6	Chemistry	15
Second Term.		Physics	4	*Second Term.*	
Latin	4	*Second Term.*		Geology	9
German	4	Mineralogy	5	German or French	4
Mathematics	5	German or French	4	Mathematics	5
Chemistry	4	Mathematics	5	Chemistry	6
Third Term.		Chemistry	6	Botany	6
Latin	4	Physics	4	*Third Term.*	
German	4	*Third Term.*		Botany	6
Mathematics	5	Mineralogy	5	German or French	4
Chemistry	4	German or French	4	Mathematics	5
		Mathematics	5	Chemistry	15
		Chemistry	4		
		Physics	6		

REMARKS ON COURSES OF STUDY

In the arrangement of the present courses of study, the needs of the young men and women of Nevada have been constantly kept in view, and it is believed that they are practical and thorough.

LATIN.

In the study of Latin, the aim is to drill the students thoroughly during the first year in the inflections of the different parts of speech and in the elements of Syntax. In the second year, the attention is directed to a thorough understanding of Syntax and the mastering of such sentences and constructions as are found in Cæsar and Cicero. Care is taken from the first that the students shall acquire a large working vocabulary. Throughout the entire course the student is expected to write some Latin almost daily. It is thought by so doing he will acquire a greater facility than he would if special recitations were devoted to the subject. In poetry, Virgil and Horace receive special attention. The beauty of the thought as well as its expression is constantly kept in view, the student being required to memorize some of the choicer passages.

Roman Literature is taught from a text-book and is supplemented by lectures giving a full outline of the entire subject. Teuffel's Literaturgeschichte is constantly used for reference. Roman Antiquities are taught in the same way. The library will furnish the most recent and best works on the subject.

GERMAN AND FRENCH.

The instruction in German and French will be very practical, the so-called "Natural Method" being used as much as possible. The object in the study of each language is three-fold: First—Mental culture and discipline. Second—The ability to read literary and scientific works with ease and pleasure. Third—A conversational command of the language necessary for social and business intercourse. The instruction in French will be in the following text-books: Keetel's Analytical and Practical French Grammar; Keetel's Analytical French Reader; Bocher's French Plays; Angel's Idioms; Prose Composition.

ENGLISH.

A thorough and systematic course of English cannot be too highly estimated by an English speaking people.

In practical value, our own tongue must, of course, take precedence of all others, modern or ancient; and as a means of mental training, the study of English is, perhaps, inferior to no other process.

The scientific study of English, stimulating as it does originality, and thereby creating a greater power of comprehension and expression of

thought, offers great advantages in pursuing different lines of scientific study.

But apart from this, the careful and extended study of English as an end in itself, is of the greatest advantage to the student, whatever may be his aim in life.

The study of language, if separated from literature, and made the study of words and not of speech, must become dry and lifeless. Language may be best studied when performing its own legitimate function, *i e.*, expressing thought; so, too, if we would make our own all that literature offers, we must thoroughly acquaint ourselves with the means of expression; hence the propriety of the plan here laid down:

I. Chaucer and Early English, Spencer, Shakespeare and Bacon.

II. Milton, Dryden and Pope, Addison, Goldsmith and Swift.

III. Wordsworth, Johnson, Burke and Lamb, Coleridge, Scott and Irving.

IV. Longfellow, Tennyson, Carlyle, Macaulay, Emerson, Ruskin, Matthews Arnold, Hawthorne, Thackeray and Dickens.

HISTORY.

The course of Universal History extends through the Junior year, and is preceded by a thorough study of United States History and Commercial Law.

The last fifty years have changed the method of writing history. Battles, treaties, dynasties, great events, no longer make up the body of historic material, for the world's life is seen to consist in the lives of its great men—the thinkers of great thoughts and doers of great deeds.

The vital essence of History is Biography, when that is scientifically considered with reference to the powerful currents that have swayed the fortunes of empires, directed the movements of races, and controlled the destinies of mankind.

When History is studied from this standpoint, and with this great theater of the world constantly before the mind, it becomes interesting and inspiring, adds life and vigor to the study and becomes second to none in the curriculum.

MATHEMATICS.

To enter any of the University courses, the candidate must pass examination in Arithmetic and in Algebra to quadratic equations.

In Arithmetic the work required covers the fundamental operations, evolutions and involution, compound number, including the Metric System, percentage, interest, etc. A thorough working power in fractions, proportion and percentage is especially desired.

In Algebra, the candidate must pass examination as far as quadratic equations in such a book as Robinson's Elementary Algebra.

The University work begins at quadratic equations and completes Wentworth's College Algebra in about two and one-half terms. As soon as Algebra is completed, the class takes up Geometry at the beginning. Wentworth's New Plane and Solid Geometry is completed in two and one-half terms. The next term, the last of the Sophomore year, Trigonometry is begun and completed. Text: Wentworth's Plane and Spherical Trigonometry.

ANALYTICAL GEOMETRY.

Analytical Geometry is begun and finished as far as the division of the General Equations of the Second Degree in the first term of Junior year. Text: Church's Analytical Geometry. Church's Descriptive Geometry is then taken up and completed in second term of Junior year.

The above is a full course in the School of Mines, excepting one term of Calculus, which is given in connection with mechanics. The students in the School of Liberal Arts and Agriculture take the same course as far as Analytical Geometry, and those in the Liberal Arts may elect that study.

Normal students take the same course in Algebra as far as chapter 20, Interest and Annuities. They also take the full course in Plane and Solid Geometry.

ANATOMY, PHYSIOLOGY AND HYGIENE.

THIRD YEAR NORMAL COURSE.—The work in this course consists of lectures and recitations, illustrated by dissections of the rabbit and frog, by experiments in artificial digestion and by such observations of the structure and functions of the human body as may practically be made.

Especial attention is given to the development, the structure and the physiological properties of the nervous system, preparing the student for the work in psychology which follows.

Besides the work in general hygiene, the students of this class are given instruction in the special hygiene precautions to be observed in the school room, and are taught how to give prompt aid to the injured and afflicted.

JUNIOR YEAR IN SCHOOL OF AGRICULTURE AND SENIOR YEAR IN SCHOOL OF LIBERAL ARTS.

The work done in these subjects by the students of these two schools does not differ in kind, but more work and more time is given to the subject by the students of Agriculture than by the students of the School of Liberal Arts.

The course consists chiefly of lectures and laboratory work, together with occasional written recitations on the work performed.

The laboratory work pertains to gross anatomy, physiology and histology. In gross anatomy it includes the dissection of the domestic cat, or rabbit, as may be selected for the year, especial attention being given to the study of the organs of digestion, circulation, respiration, excretion and reproduction; in physiology, practical work in determination of the composition and properties of the various food-stuffs and body liquids, experimentation in the process of digestion and excretion and the study of the composition and changes of the blood and lymph; in histology, the microscopic examination of the fundamental tissues and the structure of the various organs of the body, together with the preparation of material for such examination, including the process of hardening, section cutting and mounting of objects.

ZOOLOGY.

FIRST YEAR NORMAL COURSE.—In this course the student is required to gain such a knowledge of systematic zoology as may be found in Pack-

ard's Zoology (Briefer Course). In addition to this he is given a course in practical work in the laboratory, where he will examine and dissect typical forms of animal life after the methods of Huxley and Martin, Parker and Colton.

Preferably, material for study and dissection will consist of animals indigenous to Nevada.

ANATOMY OF DOMESTIC ANIMALS.

SENIOR YEAR IN SCHOOL OF AGRICULTURE.—The work in this subject is exact and technical and is almost wholly confined to laboratory work. The student is required to make dissections of such domestic animals as the ox, the horse, the sheep and the hog. The course will include the study of such points as refer to veterinary surgery and practice.

PSYCHOLOGY.

THIRD YEAR NORMAL COURSE.—Work in the subject includes lectures and recitations. The anatomy and physiology of the nervous system is reviewed briefly and illustrated by dissections and experiments. Throughout the course the attention of the student is directed to the sequential development and growth of the various faculties of the child's mind, the educational application of the subject being always considered.

PHYSICAL GEOGRAPHY.

FIRST YEAR NORMAL COURSE.—Work in this subject consists principally of text-book study and recitations. Experiments and observations, elucidating the text, are frequently made. Lectures on the climatic conditions and natural resources of Nevada are given from time to time within the course.

GEOLOGY.

SOPHOMORE YEAR SCHOOL OF AGRICULTURE, JUNIOR YEAR SCHOOL OF MINES, AND SENIOR YEAR SCHOOL OF LIBERAL ARTS.—Work in this subject consists of lectures, recitations, laboratory and field excursion. Especial attention is paid to structural geology and petrography. The composition and distribution of the country rocks of Nevada, together with the study of their relationship to mineral veins and soils, are taken up and considered at length.

PHYSICS.

Instruction in the elements of Physics is given by means of text-books and lectures, with experimental demonstrations, four times a week throughout the year, taking up the following subjects: Elementary mechanics, general properties of bodies, hydrodynamics, pneumatics, heat, magnetism, electricity, acoustics and optics.. Daniell's text-book of the Principles of Physics is used.

CHEMISTRY.

DESCRIPTIVE AND THEORETICAL CHEMISTRY.—The course of instruction in the science of Chemistry and the general study of the chemistry of inor-

ganic substance occupies four periods of class room work each week during the Sophomore year in the Academic Department and during the Freshman year in the Mining and Agricultural Departments.

Shepard's Elements of Inorganic Chemistry is used as a text-book, supplemented by lectures. It is taught experimentally, all principles being fully illustrated and explained by experiments.

At the end of the course the students are required to perform experiments, to acquaint themselves somewhat with manipulation.

Some attention is paid, also, to the most important applications of chemistry to the arts.

QUALITATIVE ANALYSIS.

The course of Qualitative Analysis occupies two terms of 15 hours a week of actual practice.

Fresenius' Manual of Qualitative Analysis is used as a guide. The course includes the detection of inorganic and organic acids as well as bases in complex substances.

Stress is laid upon the writing of equations and the explanations of the operations and reactions involved in actual analytical work.

In the shorter course of qualitative analysis given the Agricultural students, Crafts' Qualitative Analysis is used.

QUANTITATIVE ANALYSIS.

This course includes all the approved gravimetric and volumetric methods of determination.

At first analysis are confined to simple substances of known composition until accuracy is attained, when analysis of substances are taken up in special lines to suit the requirements of the student. The Mining students are drilled in methods of analysis of ores, slags, alloy, etc. The Agricultural students are taught the analysis of soils, fertilizers, manures, feeding materials, potable waters, milk, butter and kindred substances, and the estimation of their value.

Text-books used are Fresenius' Quantitative analysis, supplemented by lectures and recitations.

ORGANIC CHEMISTRY.

Instruction in Organic Chemistry is given to the Agricultural students during the first term of the Sophomore year. Remsen's Organic Chemistry is used as the text-book.

BOTANY.

Instruction in Botany is given in the Normal School and in the School of Agriculture.

The work in the Normal School is conducted during the second and third terms of the second year. Six hours per week is devoted to laboratory and class work. The work in the laboratory during the first term consists of the study of specimens as types of those forms with which the successful student of Botany must be familiar. This includes the study of different forms of seeds, roots, stems, buds, leaves, flowers and fruits, constantly bearing in mind the relation and development of vegetable forms.

During the second term the work comprises the study of both wild and cultivated plants, special attention being given to their gross anatomy, affinities and classification.

The formation of an herbarium which shall fairly represent the flora of the season is required of each student.

The representation, by means of outline drawing, of the characters of the vegetable forms studied during the two terms, is required of each student as the work progresses.

Text work, in which the writings of Gray and Wood form the basis, is conducted in connection with the work of the laboratory.

In the School of Agriculture, five hours per week during the second and third terms of the Sophomore year and the second term of the Junior year are devoted to work in Botany.

For the work in the Sophomore year in this school, the students join the class in the Normal School. The work in Agricultural Botany consists of the physical study of vegetable organs with the use of the compound microscope and observations upon the functions of the organs of living plants.

ENTOMOLOGY.

In the study of Economic Entomology, five hours per week during the third term of the Junior year in the School of Agriculture is devoted to the study of injurious and beneficial insects. This includes the study of the life histories, habits and remedies for the extermination of those most injurious. The instruction in this department is given in the form of laboratory work and text work or lectures.

The formation of a representative collection, which the student has the privilege of keeping, is required of each student.

SCHOOL OF MINES.

The requirements for admission are given elsewhere in this catalogue. The Course of Study is not sufficiently explicit regarding the work in certain studies, some of which are more fully described below.

MINERALOGY.

The first term is devoted to crystallography and blowpipe analysis. The second and third terms to the determination of minerals by means of a pocket knife and a lens and confirmatory tests with the blowpipe.

In the examination of minerals or ores that exhibit no distinctive physical properties, the blowpipe is the only quick and sure means of determination, and is consequently of great value in practice. For this reason it is freely used in the work of mineralogy.

SURVEYING.

The work in the first term is land surveying, including surveying with the chain alone, with chain and compass and with the transit, laying out and parting off land, retracing old lines, public lands, etc. The second term triangulation, leveling with wye level, leveling with barometer, laying out roads and ditches, and calculation of earthwork. The third term is devoted to underground surveying.

COURSE OF STUDY FOR NORMAL SCHOOL.

FIRST YEAR.

First Term.	Hours per Week.	Second Term.	Hours per Week.	Third Term.	Hours per Week.
Theory and Practice of Teaching	4	History of Pedagogy	4	History of Kindergarten	4
Algebra	5	Algebra	5	Algebra	5
English	3	English	3	English	2
U. S. History	2	U. S. History	2	Civil Government	3
Physical Geograp'y	4	Physical Geograp'y	2	Zoology	4
		Zoology	2		

SECOND YEAR.

First Term.	Hours per Week.	Second Term.	Hours per Week.	Third Term.	Hours per Week.
Methods of Instruction, with reviews	4	Methods of Instruction, with reviews	4	Methods of Instruction, with reviews	4
Geometry	5	Geometry	5	Book-keeping	5
English Literature	3	English Literature	3	English Literature	3
Geology	4	Botany	5	Botany	5
Drawing	2	Drawing	2	Drawing	2

THIRD YEAR.

First Term.	Hours per Week.	Second Term.	Hours per Week.	Third Term.	Hours per Week.
Science of Education	4	Science of Education	4	School Law	
Rhetoric	2	Rhetoric	2	Rhetoric	2
General History	3	General History	3	General History	3
Chemistry	4	Physics	4	Physics	4
Physiology	4	1-2 Physiology and 1-2 Psychology	4	Psychology, Preparation of Thesis	4

Note.—Drills in Vocal Music, Drawing, Declamation, Composition, Talks and Story Telling are continued throughout the course.

THE NORMAL SCHOOL.

For intelligent people, and for them alone, is a republican form of government the best. Hence the recognition of the public school as the foundation of the State.

It is poor economy, however, to expend millions for the support of public schools and place them in the hands of unskilled teachers, for it is a recognized fact that the teacher makes the school either valuable or valueless, according to his competence.

If the teacher be poor, no modern appliance can make a good school. "A Normal School, under the care and direction of the State, is a necessary part of a State educational system."—U. S. Commissioner of Education. Not only does the welfare of the schools demand that the teachers be trained in the State, but the interests of the young people who are to become teachers demand it.

In accordance with an Act of the Legislature, approved February 7, 1887, a school for the instruction of teachers was established in the State University in September of the same year.

In September, 1888, the training school was added in compliance with the same Act. The course of study covers three years work in the common school branches, advanced sciences, English and mathematics, and three years' professional work, and leads to an elementary diploma, on which the State Board of Education issues a State educational diploma, good for six years.

After three years' experience in teaching and a year's study under the direction of the Faculty of the University, the life Diploma is given, which entitles the owner to a Life Diploma of the State Board of Education.

The first year of professional work, one term is given to Theory and Practice of Teaching, in which school organization and management, fitness, necessity for training, and the responsibility of the work are discussed.

The second term is given to the History of Pedagogy. The school systems of other lands and times, the lives and the theories and practices of the world's great teachers, are carefully studied.

The third term is given to the History of the Kindergarten, not with the view of making kindergarteners, but to gain a comprehension of the principles underlying Froebel's great system of child culture.

The second year's professional work consists of lectures on methods of instruction in the common school branches and reviews of the same in connection with the work. The lectures are reproduced in written form by the students and are subject to the criticism and judgment of the professor in charge.

The third year two terms are given to the Sciences of Education. Curricula of study, relative values of knowledge, and the principles underlying physical, mental and moral education are discussed.

The third term is spent on the Nevada school law.

All students in the second and third years of the course practice in the training school. It is the purpose of the Regents to enlarge the school in September, 1890, to afford increased opportunities for this invaluable part of Normal work.

All students in the department, when not engaged in recitations, are expected to be in the training school to observe the work of the same.

The public schools of Reno are visited and intelligent reports of work seen are exacted. School journals are taken by the students and read and exchanged so that a broad view of the school work in the United States is gained. Drills in Vocal Music, Drawing, Calisthenics, Composition, Declamation, Talks and Story Telling are continued throughout the entire course so that opportunity is afforded for proficiency in these important arts. Supplementary reading in history, biography, travels, geography and pedagogy is continually required and directed.

In order that the Normal School may be of genuine service to the teachers of Nevada, the Faculty will welcome at any time of the year those who have leisure for study, and will endeavor to make their stay in the University profitable to them, either for reviews, advanced study or professional training.

REGULATIONS FOR TRAINING SCHOOL.

Children desiring places in the Training School must make application in writing to the President of the University, stating age, present attainments in scholarship and schools which they have attended. These applications will be considered in their order, and applicants will be examined as vacancies occur in the school. All applications will be considered cancelled at the close of each year, ending August 31. After applicants are given places in the Training School they must procure the prescribed uniform, books and all required supplies before enrollment in their classes. Pupils whose conduct or work is unsatisfactory will be required to withdraw from the school.

The course of study for the Training School is that published and recommended by the County Superintendent of Washoe county.

MEMBERS OF TRAINING SCHOOL—1889-90.

Brown, Thomas
Bristol, John
Blum, Walter
Bishop, Charles
Booton, Mabel
Bender, Louise
Bigelow, Hallie
Brown, Fred
Bailey, Robert
Crocker, Lottie
Evans, Newton
Fulton, John
Groton, Julia
Graham, Zelda
Hoffman, Clara
Jones, Herbert
Magill, Rollin
Miller, Mattie
Mundell, Esther
Phillips, Sadie
Robinson, Edna
Ross, Irvine
Stewart, William
Stewart, Thomas
Stoddard, Carl
Stoddard, Richard,
Sherman, Aimee
Taylor, Jobe
Taylor, Justus
Whistler, Luella

COURSE OF STUDY FOR BUSINESS DEPARTMENT.

FIRST YEAR.

First Term.	Second Term.	Third Term.
Book-keeping.	Book-keeping.	Book-keeping.
Arithmetic.	Arithmetic.	Arithmetic.
English.	English.	English.
United States History.	United States History.	Civil Government.
Penmanship.	Penmanship.	Penmanship.

SECOND YEAR.

First Term.	Second Term.	Third Term.
Book-keeping.	Book-keeping.	Book-keeping.
General History.	General History.	General History.
Commercial Law.	Commercial Law.	Composition.
Rhetoric.	Rhetoric.	Rhetoric.

BUSINESS DEPARTMENT.

The course of study in this department is designed to prepare young men and women for entrance upon a practical business life.

It is not encumbered with any superfluous studies and deals with the practical requirements of a business education. It embraces book-keeping, penmanship, commercial arithmetic, English grammar and correspondence, descriptive geography, general history, civil government, commercial law, rhetoric and composition.

As in all courses of commercial study, book-keeping is the framework of the business course, and the most practical treatise upon this subject now in print in the United States is used as the text book.

In this subject individual instruction is given besides class drills in theory and practice. By this method each student can make all the progress he may be capable of, regardless of the slow advance of any.

The work in this branch comprises four departments, viz: Initiatory, Intermediate, Advanced and Business Practice.

Initiatory.—In this department the student is thoroughly taught the theory and principles of double entry book-keeping, and by a practical course of written exercises advanced to the next.

Intermediate.—In this the student is taught the forms of negotiable paper, business forms and documents and mercantile terms, and given constant practice in book-keeping, and upon passing a successful examination is promoted to the advanced department.

In this last the student is taught all transactions that may occur in actual business, such as keeping a practical set of books, with different buying and selling price lists, writing notes, drafts, checks, deposit tickets, receipts, orders, acceptances, business correspondence and banking, and is thoroughly drilled in the application of the principles of percentage, and the rapid methods of computing interest and discount.

GENERAL INFORMATION.

DEGREES.

The degree of Bachelor of Arts will be conferred upon those who have completed the entire course in the School of Liberal Arts. The degree of Bachelor of Science will be conferred upon those who have completed either the course in Mining, or the course in Agriculture.

The second, or Master's degree, will be awarded in course to such students as have received the Bachelor's degree, and have for at least three years pursued one of the learned professions, including teaching and engineering, or shall present to the Faculty, before the end of the second term of the year in which they seek the degree, an application accompanied by a thesis on some subject, literary, philosophical or scientific, and shall pass a satisfactory examination upon such subject or subjects, as shall be designated by the Faculty, prior to commencement.

EXAMINATIONS.

Regular examinations are held at the close of each term, on the studies of the term, and are conducted chiefly in writing. The examinations in some subjects are necessarily oral. At the close of the year the final examinations may be made to embrace the work of the entire year.

In addition to these regular examinations partial examinations and written recitations are held from time to time each term, with or without notice to the students, at the discretion of the Professor in charge, or the President of the University.

All promotions are dependent upon examinations, but the judgment of the Faculty may modify the actual results of examinations whenever injustice would otherwise be done to individuals.

Unexcused absence from any regular examination is construed as a failure.

ATTENDANCE.

Attendance on all University exercises is strictly required. In case of illness, or for other sufficient reason, an excuse will be granted by the President when the proper application has been made in writing.

LITERARY SOCIETIES.

The students maintain two literary societies: The University Lyceum and the N. S. U. Literary Society.

These afford the students excellent opportunities for independent work, extemporaneous speaking and parliamentary practice.

MILITARY DEPARTMENT.

This department is in the charge of a commissioned officer of the United States Army, sent by the President of the United States to teach Military Science and Tactics to the male students of the University, and all male students are required to receive the instruction, both theoretical and practical, unless they be conscientiously opposed to the same or are physically disabled.

The Theoretical instruction consists of recitations in Tactics to the

Commandant, and lectures given by him on such subjects as Military Discipline, Organization of the Army, Recruiting, Discussions on the Different Branches of the Service, Supply and Moving of Armies, Field Fortifications, Strategy, Theory of Target Firing, Ordnance and Gunnery, Camping, etc., etc.

One hour per week is given to theory and three to practice. The practical work consists of target practice with small arms, company and battalion drills of infantry.

Instruction is given in the duties of sentinels and the laying out of camps and erecting them.

The instruction is given by the military officer in person, at all times.

A neat military uniform is worn by the cadets, and they are obliged to wear it at all times when in attendance. Written regulations are enforced in this department, and they may be seen in another part of this pamphlet.

Officers and non-commissioned are appointed in the cadet company by the Commandant, and exercise command at drills the same as in the Regular Army. Practical instruction is conducted under cover in inclement weather, and a parade ground is provided for the various military drills. Equipments are furnished by the general government for the use of the cadets.

Those graduating high in this department after a four years' college course will probably have a good showing for appointment to the army, as graduates of military colleges are to be preferred to graduates of schools which are not military.

The great interest created by the introduction of this department has drawn to the University many aspiring young men, and after once tasting the stern delights of the soldier's life, the cadet wants a full four years of it, and the ambition to learn this important science is spread throughout the hearts of all our male students.

The department has been a success now for two years and is fully established.

RULES FOR THE GOVERNMENT OF UNIVERSITY CADETS.

The male students of the Nevada State University will be organized into a military company or battalion, and will be known as the University Cadets.

2—An officer of the United States Army will personally instruct and drill the cadets regularly.

3—The military instructor will be controlled and advised by the President of the University.

4—The instruction will be from U. S. Army Tactics and lectures.

5—Cadets will be obliged to respect and obey their military instructor for the purpose of discipline and good order; obedience being the prime duty of a good soldier.

6—All the cadets of the University will be required to dress in a prescribed uniform, the uniform being decided upon by a majority vote of the Cadet Company.

7—All male students of the University over fifteen years of age must be cadets, unless conscientiously opposed to same, or physically unable to perform the duties of cadets.

8—All cadets will become members of the Cadet Company, and will drill and attend lectures.

9—Uniforms will be of one quality, except those of company officers, which shall be of better quality.

10—White cotton gloves will be worn by the cadets at all drills and exercises.

11—The cadets will be required to appear at all times in clean clothing, properly shaved, with hair neatly trimmed, and with boots or shoes polished, as these requirements are exacted from all soldiers.

12—The arms and accoutrements will be furnished by the United States, and when issued to cadets they must keep them clean. Instruction will be given concerning the care of the rifle.

The arms will be kept in racks at the University. Cadets will be responsible for the safe keeping of rifles in their possession.

ATHLETIC SPORTS.

As the gymnasium gives strength and power to the arms and trunk, so do athletic sports give these to the lower part of the human frame.

To be able to run and jump are accomplishments that all should acquire, and attention is paid to this by allowing the cadets to use the military parade ground for their foot ball, baseball, cricket, shinny, lawn tennis, lacrosse, shot casting, quoits, jumping, vaulting, foot racing, etc.

Much attention is given to this important department of physical culture; great interest prevails on the part of the students and their field days are exciting and enjoyable to an extreme. The competition for prizes is carried on with great zeal.

The benefit to the male students is very great and it makes the man out of the youth the sooner.

GYMNASTICS.

The all-important matter of physical culture will be attended to by the establishment of an excellent gymnasium in the new dormitory building, where the young men of our University may have opportunity of increasing their health and strength by exercising daily with the horizontal bars, parallel bars, vaulting bars, swinging rings, ladders, trapezes, Indian clubs, dumb bells, boxing gloves, foils and broadswords.

Instruction will be imparted by an able master, and sound bodies will result, and hence sound minds.

Too much cannot be said in regard to the necessity of physical culture. We all know that gymnastics give healthy blood, sound sleep, improve bone and muscle, make the partaker enjoy life, food and drink; all this being produced by physical exercise daily. It is above all important to students, as it keeps the brain clear and assists them to apply themselves to learning more readily, and enables them the better to retain that which they learn.

CALISTHENICS.

The health and strength of the female students is carefully looked after by giving them continual bodily exercise, which they enjoy and appreciate the year round.

By an able master they are drilled with dumb bells and Indian clubs and receive military drill, which consists of gymnastics and marching in step and executing pretty movements in silence under discipline.

Those who have gone through this can testify to its excellent results on the health of the girls.

An aim is made to give variety, and such is the case, and outsiders have continually noticed the change in the carriage of the girls after receiving the manual training.

The system is applauded as a success and the benefit derived is obvious.

STUDENTS OF LIMITED MEANS.

During the past year a number of meritorious students of limited means have found employment either on the University grounds, the grounds of the Experiment Station or as janitors; in one or two instances nearly or quite defraying their necessary expenses.

It is the intention to aid deserving students as far as possible. The Agricultural Experiment Station offers special inducements to this class of students who wish to become intelligent and scientific farmers.

NEW UNIVERSITY BUILDING.

Under the provisions of an Act of the State Legislature, approved March 4, 1889, relating to the State University, for making necessary additions to its room capacity, nearly twenty thousand dollars have been expended in the erection and furnishing of a brick building upon the University grounds.

Its dimensions are eighty by forty feet, with south projection twenty by sixty feet, and north L twenty by twenty feet, embracing a basement, first, second and third floors.

It was designed with a view to its adaptation to whatever uses the exigencies of the immediate future should seem to dictate. It will be heated by a Boynton hot air wood furnace, with pipes and registers conveniently placed. It is connected with the water main and gasometer. It has a drainage into the main connecting with the town sewers. Hot and cold water pipes are connected with bath tubs, sinks and washbowls. It is at present furnished for dormitory purposes in the basement and on second floor; school rooms and recitation rooms on first floor, and as an assembly hall and drill room on the third floor.

It is a building creditable alike to its designers and builders, and promises to be very useful to the State.

MUSEUM.

Since the establishment of the University the general Museum has made deliberate growth through the contributions of specimens by citizens of the State. Arrangements are now being effected whereby its rate of growth may be materially increased through the establishment of a system of exchanging specimens with the leading museums of the country.

For this purpose, much material of a single kind may be used to great advantage. Citizens of the State and friends of the University, living in localities where minerals, ores or natural history specimens may be secured, are requested to correspond with the Curator of the Museum.

Let it be borne in mind that that which is most common and unimportant in one locality may be prized as a rarity in another.

Thus its high value as material for exchange. The University will pay freight charges on all material sent for this purpose, provided certain conditions, which will be given on application, are fulfilled. All contributions that are made will be duly acknowledged and recorded. Communications on this subject should be addressed: Curator of the Museum, State University, Reno, Nevada.

LIBRARY.

The University Library contains about two thousand volumes. This number is increasing both by donations and purchase. The selection of books has been judiciously made, and upon the shelves of the Library

will be found many useful works on various topics. The Library is accessible at stated hours daily, under suitable regulations, and students may have the counsel of the Librarian or other professors as to the right selection and use of books. The reading room affords a comfortable place where students can assemble and read the periodicals, papers and books obtained from the Library.

The tables are furnished with many of the daily papers of the State, together with periodicals devoted to agriculture, horticulture, the natural sciences, industries, arts, manufactures and commercial products, medical climatology and geography, and protection to American industry:

Agriculture.

Western Resources,
American Agriculturist.
Rural New Yorker,

Horticulture.

The American Garden,
Vick's Illustrated Monthly,
American Farm and Horticulturist,
The Canadian Horticulturist.

Scientific.

Scientific American,
The Western American Science,
Canadian Entomologist,
The Chemical News,
The American Microscopical Journal.
American Naturalist,
Popular Science News,
The Sanitarian,
The Botanical Gazette,

Miscellaneous.

The Christian Register,
Pacific Rural Press,
American Economist,
North American Review,
Harper's Monthly,
The Century,
The Musical Record,
The Holstein Friesian Register,
The Public School Journal,
Home Farm,
The Cosmopolitan,
Reno Evening Gazette,
Journal of Pedagogy,
The Voice,
Western School Journal,
Home and Farm,
American Economist,
Prairie Farmer,
Garden and Forest,
Breeder's Gazette,
Army and Navy Journal,
St. Nicholas,
The Gymnasium,
Pacific Educational Journal.
The Age of Steel,
Engineering and Mining Journal,
The Forum,
Atlantic Monthly,
Scribner's Monthly,
Overland Monthly,
Golden Days,
The Outlook,
Maryland Farmer and New Farm,
New York Tribune,
Reese River Reveille,
Daily Nevada State Journal,
Free Lance,
The Woman's Tribune,
American Kindergarten,
Journal of Education,
Harper's Young People,
The Western Plowman,
Southern Workman,
New England Journal of Education,
The Youth's Companion,
The Normal Index,
Wisconsin Journal of Education,

Donations to the Library are in order and will be at all times thankfully received.

APPENDIX A.

[For easy reference, it has been considered proper to publish some of the laws relating to the University and the Agricultural Experiment Station of Nevada.]

AN ACT DONATING PUBLIC LANDS TO THE SEVERAL STATES AND TERRITORIES WHICH MAY PROVIDE COLLEGES FOR THE BENEFIT OF AGRICULTURE, MECHANIC ARTS AND MILITARY TACTICS, KNOWN AS THE MORRILL ACT.

[Passed by the Congress of the United States July 2, 1862.]

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America, in Congress Assembled*, That there be granted to the several States for the purposes herein mentioned an amount of public land, to be apportioned to each State a quantity equal to thirty thousand acres for each Senator and Representative in Congress to which the States are respectively entitled by the apportionment under the census of eighteen hundred and sixty; *provided*, that no mineral lands shall be selected or purchased under the provisions of this Act.

SEC. 2. *And be it further enacted*, That the land aforesaid, after being surveyed, shall be apportioned to the several States in sections or subdivisions of sections not less than one-quarter of a section; and whenever there are public lands in a State subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which the State shall be entitled shall be selected from such lands within the limits of such State, and the Secretary of the Interior is hereby directed to issue to each of the States in which there is not the quantity of public lands subject to sale at private entry at one dollar and twenty-five cents per acre, to which said State may be entitled under the provisions of this Act, land scrip to the amount in acres for the deficiency of its distributive share, said script to be sold by said State and the proceeds thereof applied to the uses and purposes prescribed in this Act, and for no other use or purpose whatsoever; *provided*, that in no case shall any State to which the land scrip may thus be issued be allowed to locate the same within the limits of any other State, or of any Territory of the United States; but their assignees may thus locate said land script upon any of the unappropriated lands of the United States subject to sale of private entry at one dollar and twenty-five cents or less per acre; *and provided further*, that not more than one million acres shall be located by assignees in any one of the States; *and provided further*, that no such location shall be made before one year from the passage of this Act.

SEC. 3. *And be it further enacted*, That all the expenses of management, superintendence and taxes from the date of selection of said lands previous to their sales, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the States to which they may belong, out of the Treasury of said States, so that the entire proceeds of the sale of said lands shall be applied, without diminution whatever, to the purposes hereinafter mentioned.

SEC. 4. *And be it further enacted*, That all moneys derived from the sale of the lands aforesaid by the States to which the lands are apportioned, and from the sale of land scrip hereinbefore mentioned provided for, shall be invested in stocks of the United States, or of the State, or some other safe stocks, yielding not less than —— per centum per annum upon the par value of said stocks, and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided in section 5 of this Act), and the interest of which shall be invoilably appropriated by each State which may take

and claim the benefit of the Act to the endowment, support and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SEC. 5. *And be it further enacted*, That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions hereinbefore contained, the previous assent of the several States shall be signified by legislative Acts.

First—If any portion of the funds invested as provided by the foregoing section, or any portion of the interest thereon, shall by any action or contingency be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished, and the annual interest shall be regularly applied, without dimunition, to the purposes mentioned in the fourth section of this Act, except that a sum not exceeding ten per centum upon the amount received by any State under the provisions of this Act may be expended for the purchase of lands for sites or experimental farms whenever authorized by the respective Legislatures of said States.

Second—No portion of said 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.

Third—Any State which may take or claim the benefit of the provisions of this Act shall provide, within five years, at least, not less than one college as described in the fourth section of this Act, or the grant to such State shall cease, and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchase under the State shall be valid.

Fourth—An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their costs and results, and such other matters, including State, industrial and economical statistics, as may be supposed useful, one copy of which shall be transmitted by mail free, by each to all other colleges which may be endowed under the provisious of this Act, and one copy to the Secretary of the Interior.

Fifth—When lands shall be selected from those which have been raised to double the minimum in price, in consequence of railroad grants, they shall be computed to the States at the maximum price, and the number of acres proportionately diminished.

Sixth—No State, while in a condition of rebellion or insurrection against the Government of the United States, shall be entitled to the benefits of this Act.

Seventh—No State shall be entitled to the benefits of this Act unless it shall express its acceptance thereof, by its Legislature, within two years from the date of its approval by the President.

SEC. 6. *And be it further enacted*, That the land scrip issued under the provisions of this Act shall not be subject to location until after the first day of January, one thousand eight hundred and sixty-three.

SEC. 7. *And be it further enacted*, That the land officers shall receive the same for locating land scrip, issued under the provisions of this Act, as is now allowed for the location of military bounty land warrants under existing laws; *provided*, their maximum compensation shall not be thereby increased.

SEC. 8. *And be it further enacted*, That the Governors of the several States to which scrip shall be issued under this Act shall be required to report annually to Congress all sales made of such scrip, until the whole amount shall be disposed of, the amount received for the same and what appropriation has been made of the proceeds. [Approved July 2, 1862.]

APPENDIX B.

CONSTITUTION OF NEVADA, ARTICLE XI—EDUCATION.

SECTION 1. The Legislature shall provide for the establishment of a State University, which shall embrace departments for Agriculture, Mechanic Arts and Mining, to be controlled by a Board of Regents, whose duties shall be prescribed by law.

GENERAL STATUTES OF NEVADA, CHAPTER XI—STATE INSTITUTIONS.

SECTION 3. The Board of Regents [of the State University] shall have entire control and management of the affairs of the institution hereby established. They shall by and with the advice of the Principal [President], arrange a course of study to be pursued in said institution, and shall designate the text-books to be employed. They shall determine and publish throughout the State the terms of admission to said institution; *provided*, that the course of study shall be such as is appropriate to an Academic or Preparatory Department; that tuition shall be free and that none shall be excluded on account of sex, race or color.

[Act of March 5, 1869.]

SECTION 3. The Board of Regents, elected under the provisions of this Act, shall manage and control all funds accruing or belonging to "The State University Fund," and also the affairs of the State University, whenever the erection thereof shall have been authorized by law. They shall also perform such other duties as may be prescribed by law. Before entering upon their duties they shall take and prescribe [to] the official oath and file the same in the office of the Secretary of State. They shall hold stated meetings at least once in three months, in such place as may be provided by the Secretary of State. They shall receive no compensation for their services, but their actual expenses incurred in the performance of their duties, duly certified by them, shall be examined, and so far as found correct allowed to them by the Board of Examiners.

APPENDIX C.

AN ACT RELATING TO THE STATE UNIVERSITY AND MATTERS PROPERLY CONNECTED THEREWITH.

[Approved February 7, 1887.]

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

SECTION 1. There shall be established in the State University a school for the instruction of teachers, at which shall be taught all branches of instruction which are taught in the common schools of this State. There shall also be taught in said University chemistry, geology and mineralogy, so far as they relate to the theory and practice of mining, agriculture and mechanic arts.

SEC. 2. The Governor, Secretary of State and Superintendent of Public Instruction shall constitute the Board of Regents of the State University until the first day of January, A. D. one thousand eight hundred and eighty-nine, and until their successors are elected and qualified. There shall be elected at the next general election, in the same manner as other State officers are elected, three qualified electors, who shall constitute the Board of Regents of the State University. The term of office of two of the Regents so elected shall be four years from the first day of January, A. D. one thousand eight hundred and eighty-nine, and until their successors are elected and qualified. The term of office of one of the Regents so elected shall be two years from and after the first day of January, A. D. one thousand eight hundred and eighty-nine, and until his successor is elected and qualified. And thereafter at each general election preceding the expiration of the term of office of any member of the Board of Regents, a successor shall be elected in the same manner as other State officers are elected. The persons elected as Regents under the provisions of this Act, before entering upon the duties of their office, shall take and subscribe [to] the official oath and file the same in the office of the Secretary of State. In case of vacancy in said Board of Regents, after the same shall have been filled by election as herein provided, the Governor shall fill the same by appointment until the next general election, when such vacancy shall be filled by election as herein provided.

SEC. 3. The powers and duties of the Board of Regents are as follows:

First—To prescribe rules for their own government and for the government of the University.

Second—To prescribe rules for the reports of officers and teachers of the University.

Third—To prescribe the course of study, the time and standard of graduation and the commencement and duration of the terms and the length of the vacations of the University.

Fourth—To prescribe the text-books, and provide apparatus and furniture for use of pupils.

Fifth—To appoint a President of the University, who shall have a diploma from some recognized college of learning of good standing, or some State Normal School, who has had at least five years practical experience as an instructor; who is familiar with the modern methods of instruction generally approved in the United States, and who shall be indorsed as to moral character and qualifications as an instructor by the President and Faculty of three institutions of learning authorized by law to confer degrees.

Sixth—To prescribe the duties of the President and fix his salary, and the salaries of all other teachers in the University.

Seventh—To require the President, under their direction, to establish and maintain training or model schools, and require the pupils of the University to teach and instruct classes therein.

Eighth—To control the expenditures of all moneys appropriated for the support and maintenance of the University, and all moneys received from any source whatever.

Ninth—To keep open to public inspection an account of receipts and expenditures.

Tenth—To annually report to the Governor a statement of all their transactions and of all other matters pertaining to the University.

Eleventh—(To transmit with such report a copy of the President's annual report.)

Twelfth—To revoke and diplomas by them granted, on receiving satisfactory evidence that the holder thereof is addicted to drunkenness, is guilty of gross immorality, or is reputably dishonest in his or her dealings; *provided*, that such person shall have at least thirty (30) days' notice of such contemplated action, and shall, if he or she asks it, be heard in his or her own defense.

SEC. 4. The Board of Regents shall have power to appoint a Chairman, who shall receive no compensation therefor, nor shall any member of the Board of Regents receive any compensation for his services, except necessary expenses in attending meetings of the Board. The Board of Regents may employ a Clerk of said Board, who shall receive a salary of twenty-five dollars per month, and who shall keep a full and complete record of all proceedings of the Board, which shall at all times be open to inspection, and said clerk shall not be a teacher in said University.

SEC. 5 The Board must hold four regular meetings in each year, and may hold special meetings at the call of the Chairman of the Board.

SEC. 6. The President of the University must make a detailed annual report to the Board of Regents, with a catalogue of pupils, and such other particulars as the Board may require or may think useful.

SEC. 7. Upon the recommendation of the President of the University, the Board of Regents may issue to those who worthily complete the full course of study and training prescribed, a diploma of graduation. To the persons receiving this diploma the State Board of Education shall grant a first grade State certificate for life, and the Board of Regents may, at their discretion, issue an "elementary diploma" to those who worthily complete such part of the course of study and training as may be prescribed. To the person receiving this diploma the State Board of Education shall grant a second grade certificate, to be effectual for such period as they, in their discretion, may think proper.

SEC. 8. It shall be the duty of the President of the University to instruct in the University, and, under the direction of the Board of Regents, to manage all matters connected with the institution, to employ assistant teachers and servants, purchase supplies and make monthly statements to the Board of Regents of all receipts and expenditures, supported by vouchers.

SEC. 9. There shall be no discrimination in the admission of pupils on account of sex, race or color, but no person shall be admitted who is not of good moral character and who has not arrived at the age of fifteen years, and passed such an examination as shall be prescribed by the Board of Regents, and no person under said age shall hereafter be taught in said institution.

SEC. 10. Tuition shall be free.

SEC. 11. The State Superintendent of Public Instruction must visit the University at least every three months, inquire into its condition and management, and report to the Board of Regents quarter-yearly the condition of the institution, with such suggestions as he may deem proper.

SEC. 12. All expenses incurred, of every name and nature, involving the payment of money by or under the direction of the Board of Regents of the University, shall be passed on by the Board of Examiners, as other accounts against the State, and be paid out of the moneys appropriated for the University.

SEC. 13. Sections one, two, three and five, of the Act of March fifth, A. D. one thousand eight hundred and sixty-nine, entitled, "An Act to provide for the election of the Board of Regents, to fix their term of office and prescribe their duties;" sections two, three, five and six of the Act of March seventh, A. D. one thousand eight hundred and seventy-three, entiled, "An Act to locate the State University, and to provide for the control and maintenance of the same;" section three of the Act of March seventh, A. D. one thousand eight hundred and eighty-five, entitled, "An Act to amend an Act entitled 'An Act to locate the State University and to provide for the control and maintenance of the same,'" approved March seventh, one thousand eight hundred and seventy-three, and all other Acts and parts of Acts in conflict with the provisions of this Act are hereby repealed.

APPENDIX D.

THE HATCH ACT.

An Act to establish Agricultural Experiment Stations in connection with the Colleges established in the several States under the provisions of an Act approved July second, one thousand eight hundred and sixty-two, and of the Acts supplementary thereto.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and application of agricultural science, there shall be established, under the direction of the college or colleges or agricultural departments of colleges in each State or Territory established, or which may hereafter be established, in accordance with the provisions of an Act approved July second, one thousand eight hundred and sixty-two, entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and mechanic arts," or any of the supplements to said Act, a department to be known and designated as an "Agricultural Experiment Station;" *provided*, that in any State or Territory in which two such colleges have been or may be so established the appropriation hereinafter made to such State or Territory shall be equally divided between such colleges, unless the Legislature of such State or Territory shall otherwise direct.

SEC. 2. That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industries of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories.

SEC. 3. That in order to secure, as far as practicable, uniformity of methods and results in the work of said stations, it shall be the duty of the United States Commissioner of Agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate, from time to time, such lines of inquiry as to him shall seem most important; and, in general, to furnish such advice and assistance as will best promote the purposes of this Act. It shall be the duty of each of said stations, annually, on or before the first day of February, to make to the Governor of the State or Territory in which it is located, a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said Commissioner of Agriculture, and to the Secretary of the Treasury of the United States.

SEC. 4. That bulletins or reports of progress shall be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the States or Territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, and as far as the means of the station will permit. The bulletins or reports of said stations shall be transmitted in the mails of the United States free of charge, under such regulations as the Postmaster-General may from time to time prescribe.

SEC. 5. That for the purpose of paying the necessary expenses of conducting investigations and experiments and printing and distributing the results as hereinbefore prescribed, the sum of fifteen thousand dollars per annum is hereby appropriated to each State, to be specially provided for by Congress in the appropriations from year to year, and to each Territory entitled under the provisions of section

eight of this Act, out of any money in the Treasury proceeding from the sales of public lands, to be paid in equal quarterly payments, on the first day of January, April, July and October in each year, to the Treasurer or other officer duly appointed by the governing boards of said colleges to receive the same, the first payment to be made on the first day of October, one thousand eight hundred and eighty-seven; *provided, however*, that out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement, or repair of a building or buildings necessary for carrying on the work of such station; and therefore an amount not exceeding five percentum of such annual appropriaiion may be so expended.

SEC. 6. That whenever it shall appear to the Secretary of the Treasury from the annual statement of receipts and expenditures of any of said stations that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

SEC. 7. That nothing in this Act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the States or Territories in which they are respectively located.

SEC. 8. That the States having colleges entitled under this section to the benefits of this Act and having also Agricultural Experiment Stations established by law separate from said colleges, such States shall be authorized to apply such benefits to experiments at stations so established by such States, and in case any State shall have established under the provisions of said Act of July second aforesaid, an agricultural department or experimental station, in connection with any university, college or institution not distinctively an agricultural college or school, and such State shall have established or shall hereafter establish a separate agricultural college or school, which shall have connected therewith an experimental farm or station, the Legislature of such State may apply in whole or in part the appropriation by this Act made, to such separate agricultural college or school, and no Legislature shall by contract express or implied disable itself from so doing.

SEC. 9. That the grants of money authorized by this Act are made subject to the Legislative assent of the several States and Territories to the purposes of said grants; *provided*, that payment of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of its Legislature meeting next after the passage of this Act shall be made upon the assent of the Governor thereof duly certified to the Secretary of the Treasury.

SEC. 10. Nothing in this Act shall be held or construed as binding the United States to continue any payments from the Treasury to any or all the States or institutious mentioned in this Act, but Congress may at any time amend, suspend, or repeal any or all the provisions of this Act. [Approved March 2, 1887.]

APPENDIX E.

AN ACT IN RELATION TO THE AGRICULTURAL EXPERIMENT STATION OF THIS STATE.

[Approved February 8, 1889.]

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

SECTION 1. The Agricultural Experiment Station, organized and established by the Board of Regents of the State University, at and in connection with said State University, is hereby recognized, and shall be continued as a part of said State institution, and shall be conducted by a "Board of Control," hereafter provided for, for the purpose of acquiring and diffusing among the people useful and practical information on the subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science. Said State University having been established in accordance with the provisions of an Act of Congress, approved July second, one thousand eight hundred and sixty-two entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," and Acts amendatory thereof and supplementary thereto.

SEC. 2. The Board of Control of said Agricultural Experiment Station shall consist of the Board of Regents of the State University, and they shall organize said Board and choose its officers.

SEC. 3. The Board of Control of said Agricultural Experiment Station shall, to the best of its ability, observe and carry out the requirements of "An Act to establish Agricultural Experiment Stations in connection with the colleges established in the several States, under the provisions of the Act supplementary thereto," approved by the President, March second, one thousand eight hundred and eighty-seven. The said Board shall have charge of the receipts, safe keeping and expenditures of all money appropriated by Congress for the benefit and use of said Agricultural Experiment Station; they shall be allowed and paid all necessary expenses incurred by them severally in the discharge of their official duties, but shall receive no salary or compensation for their services.

SEC. 4. Said Board of Control shall make a report at the end of each fiscal year to the Governor, and twelve hundred copies thereof shall be printed at the State Printing Office for general distribution by said Board. The Governor shall transmit all said annual reports to the Legislature.

SEC. 5. The Legislature of Nevada hereby gratefully assents to the purposes of all grants of money made heretofore, and all which may hereafter be made, to the State of Nevada by Congress, under the Act of Congress, the title of which is recited in section three of this Act, and agrees that the same shall be used only for the purposes named in said Act of Congress, or Acts amendatory thereof or supplementary thereto.


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