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Annual • Catalogue

of the

Agricultural • College

• • • of Utah • • •

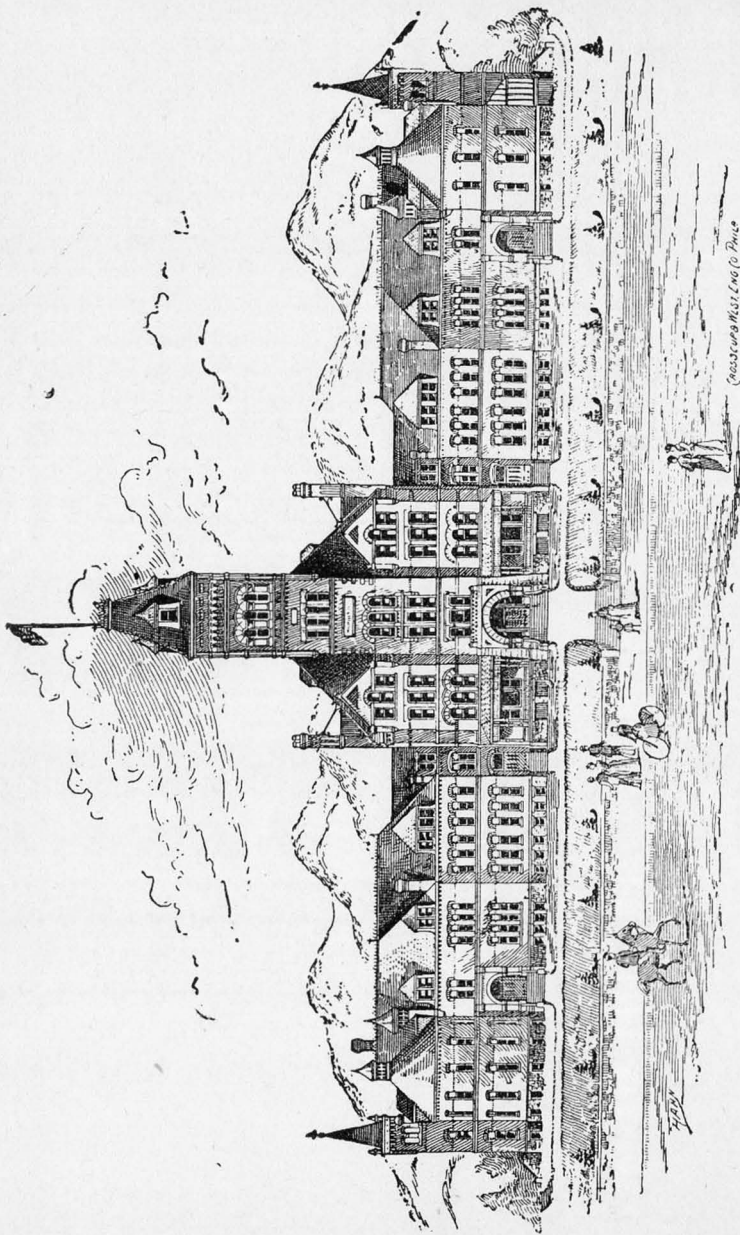


Logan, Utah

1893-4



THE SALT LAKE LITHOGRAPHING CO. PRINTERS



Crossing Must Live to Prove

AGRICULTURAL COLLEGE, LOGAN, UTAH.

ANNUAL CATALOGUE

OF THE

AGRICULTURAL COLLEGE

OF UTAH

LOGAN, UTAH

1893-4

CALENDAR FOR 1893-4.

First Term Opens.....	Tuesday, September 5, 1893.
First Term Closes.....	Friday, December 22, 1893.
Second Term Opens.....	Tuesday, January 2, 1894.
Second Term Closes.....	Saturday, March 17, 1894.
Third Term Opens.....	Tuesday, March 20, 1894.
Third Term Closes.....	Friday, June 1, 1894.

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Professor of Dairying and Animal Husbandry.

Instructor in Drawing and Shop Work.

Instructor in Music and Painting.

HISTORICAL STATEMENT.

The Agricultural College of Utah was organized by an act of the Territorial Legislature, approved March 8th, 1888, accepting the provisions of an act of Congress introduced by Hon. Justin S. Morrill, of Vermont, and made a law July 2, 1862. This act was supplemented by an act passed March 2, 1888, founding and endowing Agricultural Experiment Stations as departments of these colleges, and by a subsequent act passed August, 1890, further endowing them. Under "Resources of the College," found on page 9, further information in relation to these supplemental acts is given.

The purposes of Congress are seen in the following quotations from the National law: "And the interest of which shall be inviolably appropriated by each state, which may take and claim the benefit of this 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 the mechanic arts * * * in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

THE PURPOSES OF THESE COLLEGES.

The organic law founding these colleges names agriculture first. This, coupled with the further fact that agriculture is the basic industry, quite properly determined most of the States to call these new institutions of learning Agricultural Colleges.

The evident intention of Congress to give prominence to agricultural instruction at these institutions, and the transcendent

importance of farming, have led the masses to assume that teaching agriculture as an art is the supreme, if not the only function of these institutions.

This false view has unfortunately led to much misunderstanding that has been detrimental both to the colleges and to those in whose interest they were established. At the threshold of this new college existence it is desirable that its legitimate functions be clearly understood by those for whom it was most wisely and generously founded.

The law makes the leading purpose of these colleges the teaching of "such branches of learning as relate to agriculture and the mechanic arts." Something more than manual practice is, however, intended. The foundation for broad and comprehensive reasoning is to be laid. All that science and learning can do in widening the field of vision of industrialists, or in giving deftness or direction to the hand or in substituting for the hand more productive forces through the application of increased intelligence, comes within the scope of the law. These schools are "to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." The benefits of the law are to be extended beyond farmers and mechanics to the several "pursuits and professions of life;" and for all the industrial classes, the intent is to go beyond making the mere expert industrialist to his liberal education as a man and a citizen. There is today a keen struggle on the part of the nations for supremacy in the marts of the world. This competition has been developed within the past thirty years by the marvelous growth of the arts, especially by the perfection of steam transportation by land and by sea, whereby the nations of the world have become one commercial neighborhood. Congress recognized, in the provisions of the law, that the intelligence of the industrial classes is the measure of the productive powers of nations, and thus sought to prepare this nation for industrial success. Congress further recognized that more and more the honor, wealth and stability of the nation rest in the keeping of the industrial classes.

AN EDUCATIONAL DEPARTMENT.

On emerging from the dark ages the world had no literature from which to draw knowledge and inspiration, save that of the ancient civilizations of Greece and of Rome. This only source of information and culture became the main instruction of the schools three centuries ago, and of course the fashionable instruction. Despite the superior civilization of to-day, with its broad culture, and despite the new world of thought and action—the outgrowth of sciences unknown to the narrower vision of the ancients—the study of ancient literature remains, through the force of custom, the prominent work of classical colleges. Herbert Spencer, alluding to classical education, says: “Men dress their children’s minds as they do their bodies, in the prevailing fashion.” Congress gave to the industrial classes, who could not, would not, or did not care to afford a classical education, opportunity to inform themselves regarding the civilization, the varied and deeply interesting natural world, and the controlling and productive forces surrounding them and daily reacting upon their destinies.

COLLEGE POLICY.

To the full extent of its resources, the college will carry out the broad policy of its founders. It will “Teach such branches of learning as are related to agriculture and the mechanic arts.” The former being, in the thought of Socrates, the mother and nurse of all other industries, will receive special attention. This department will be made all that the people of Utah will support, not by money alone, but by the attendance of their sons and daughters. The prominence given to the Department of Agriculture need not, however, give rise to any jealousies, for the character of the agriculture of a country is a measure of the prosperity of other industries, and of a nation’s wealth and culture.

The wealth and variety of Utah’s mineral resources adapted to the support of the arts, are such that the college will fall far

short of its duty if it does not give a zealous and earnest attention to mechanic arts, and to civil engineering. This work will be extended until it includes irrigation engineering.

The young women of the Territory, attending the College, will be put on an equal footing with the young men in obtaining a special education for their sphere of life.

A review of the courses found on the following pages will show that the college authorities consider the man before the industrialist. The technical work will be accompanied by studies best calculated to impart such information as the average citizen finds most useful and pleasurable. For detailed information regarding the proposed work of the College, the reader is referred to the "Courses of Study."

RESOURCES OF THE COLLEGE.

Congress provided "That there be granted to the several States, for the purpose hereinafter mentioned, an amount of public land to be appropriated to each State, a quantity equal to 30,000 acres for each Senator and Representative in Congress, to which the States are respectively entitled." The law provides for the sale of these lands by the States without cost to the fund, and says: "So that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned." After defining the purposes of the grant, and after providing for the safe investment of the funds derived from the sale, the law says, in Section 5:

The grant of land and landscrip 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 fund 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 diminution to the purpose 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 for 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.

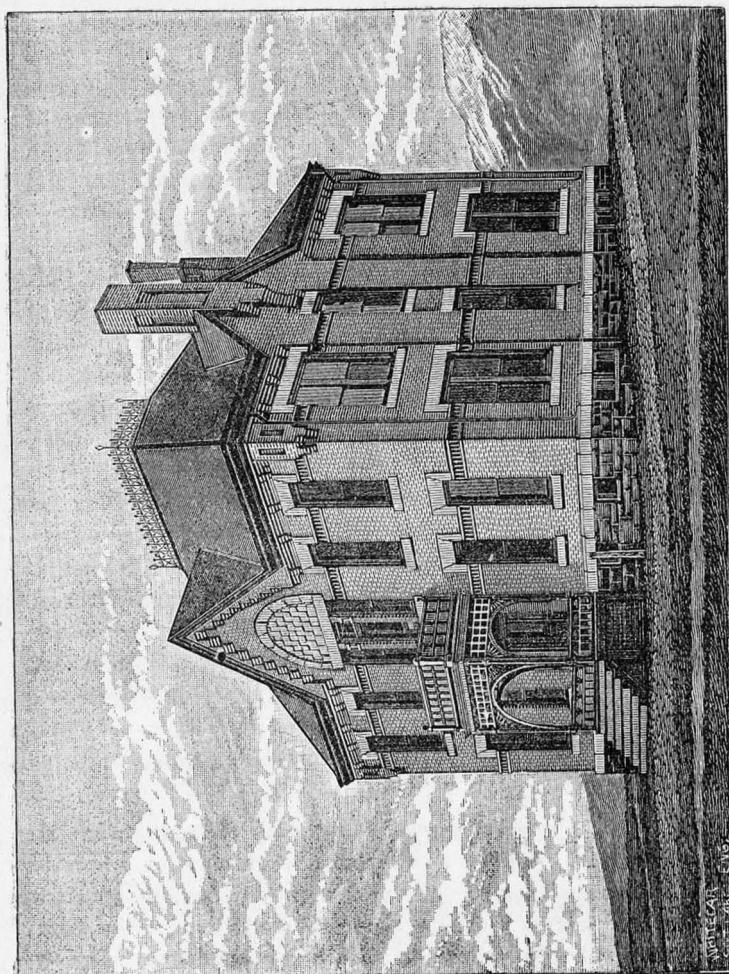
On the admission of Utah to statehood, the college will come into possession of 30,000 acres of land for each Congressional Senator and Representative that it may be entitled to, the funds derived from the sale of which, as it has been seen, Utah will be under obligation to perpetuate as a permanent fund for the maintenance of the college.

By an act of Congress passed in 1890, the sum of \$15,000 was given to each Agricultural College of the country. This sum is an annual appropriation and increases \$1,000 yearly until it reaches \$25,000. The revenue from this source for the year 1894-5 will be \$20,000. The supplemental act confines the use of the funds to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural and economic science with special reference to their applications to the industries of life, and to facilities for such instruction.

The Territorial act of organization gave \$25,000 for buildings. The last General Assembly gave \$48,000 and the present General Assembly gave \$108,000 to the college. The total revenue available for the biennial period ending Dec., 1893, is \$108,000.

THE EXPERIMENT STATION.

By an act of Congress passed March 2d, 1887, the sum of \$15,000, which it is expected will continue as an annual appropriation, was appropriated for experimental work, to be conducted in connection with agricultural colleges. The first appropriation, that of 1862, was for the exclusive purpose of teaching or imparting information to all classes of industrialists. The second appropriation, by law, is to be wholly devoted to the acquisition of new information, or is wholly for research. This original research is to be in the field of agri-



EXPERIMENT STATION.

culture, and is primarily for farmers and secondarily for students. The congressional Law defines quite fully the proposed line of research. Briefly stated, the intended investigation may legitimately cover any question relating to economic agriculture.

Under the title "Course in Agriculture," a brief presentation of the work now going forward at this station, will illustrate the purpose of the law.

RELATION OF UTAH TO THE COLLEGE.

In accepting the grant of Congress for founding both the college and the station, Utah pledged herself to carry out the purpose of Congress in good faith, and accepted the obligation to equip and maintain the college, and to guard its funds. Its trustees are territorial officers.

The college is, then, a territorial institution, fully under territorial control within the Territory's stipulations with Congress, and has the Territory's pledge to support it.

It is unnecessary to quote the territorial law in full. The following points of interest will be noted:

First. The law located the college in Cache County.

Second. Sums have been given to erect college buildings and to equip and maintain them, as already noted.

Third. The objects of the college were defined by the territorial law in the language of Congress already quoted. In the same manner the purposes of the Experiment Station were defined. The Territory is in full accord with the terms of the congressional grant.

Fourth. Section 10 is quite important and will be given in full. With this section the management is in most hearty accord. Positive assurance is hereby given to the public that there will be a faithful discharge of the duties devolving upon those in authority, touching this portion of the law.

SEC. 10. In the appointment of professors, instructors and other officers and assistants of said college, and in prescribing the studies and exercises thereof, and in every part of the management and government thereof, no partiality or preference shall be shown by the trustees to one sect or religious denomination over another, nor shall anything sectarian be taught therein ; and persons engaged in conducting, govern-

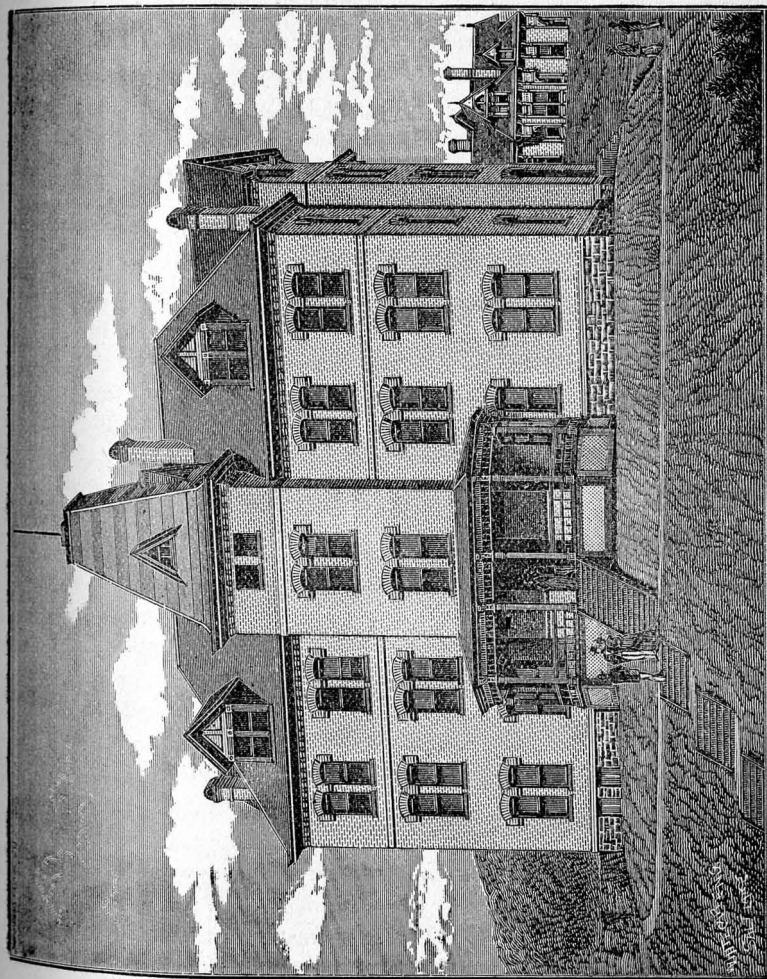
ing, managing or controlling said college, and its students and exercises in all its parts, shall faithfully and impartially carry out the provisions of this act for the common good, irrespective of sects or parties, political or religious.

Fifth. The course of instruction "shall embrace the English language and literature, mathematics, civil engineering, agricultural chemistry, animal and vegetable anatomy and physiology; the veterinary art, entomology, geology and such other natural sciences as may be prescribed, technology, political, moral and household economy, horticulture, moral philosophy, history, book-keeping, and especially the application of science and of the mechanical arts to practical agriculture in the field."

The length of the course was made not less than nine months.

LOCATION OF THE COLLEGE.

Cache County and Logan gave a farm of 100 acres, and thereby secured the location of the college at Logan. Logan is the capital city of Cache County, and, in a commercial sense, of Cache Valley. It is surpassed in wealth and population by only three cities of Utah, and in the beauty of its location by none. Cache Valley is some sixty miles in length, twelve miles in width, and is completely surrounded by the Wasatch range of mountains. From the upper bench of the old lake formation, upon which the college and farm are located, can be seen, in the clear air of this inter-mountain region, the full expanse of the rich valley, while the uniquely corrugated mountain sides encircling the valley are seen in all their wealth of varied beauty. The beauty of its location is probably unsurpassed by that of any other college in the country. Logan has the characteristics of a beautiful college town. Its rural population is, in morals, second to no town in the Territory, and its size equals the demands upon it for boarding facilities. Board can be procured at lower rates than in large cities.



BOARDING HOUSE.--SEE PAGE 16.

COLLEGE EQUIPMENT.

MAIN COLLEGE BUILDING.—This is one of the largest college structures in the country, being 342 feet long by 190 feet deep in the center. Funds were given by the present General Assembly to complete the building, as shown in the frontispiece, except 80 square feet, or about one-sixth in front.

It contains thoroughly ventilated recitation rooms for the several departments, and working or practical exercise rooms, ample in dimensions and complete in their conveniences for the workshops, cooking, sewing, household, dairy, laundry, engineering, agricultural and business departments. It contains laboratory, museum, library and gymnasium rooms and a military drill hall of ample size, each being some 80 feet square. Its audience room or chapel will hold 1,600. Three large rooms have been set aside for halls for the literary societies. All the rooms are light and pleasant and the halls wide and roomy, extending on each floor the entire length of the building. Bath rooms for students are to be put in. The building is equipped with the best modern furniture.

A boarding house is connected with the college. It contains thirty-three rooms. These rooms are 12x14 feet, exclusive of a good closet. Each room has registers for ventilation, and is furnished with a looking glass, a full set of chamber ware, a wash stand, table, chairs, and either a bedstead or two cots. In addition to the rooms for the students there are rooms for the matron and for cooks, a fine, large students' reception room, 19x27 feet, a model kitchen, a dining room, a pantry supplied with modern conveniences, a laundry room and bath rooms.

FARM BUILDINGS.—A model barn is connected with the department of agriculture. It contains a silo, a root cellar, an engine room, quarters for swine, for sheep, for cattle, for horses, for hay and other coarse fodder; for grain, for tools and for horticultural uses.

A farm house with dairy rooms associated with it, illustrates the modern conveniences that are found in connection with modern farm houses.

Three laborers' cottages and a house for the farm superintendent are located on the grounds of the college.

All the buildings are new, well adapted to their purposes, and of credit to the Territory.

Connected with the above buildings is the Experiment Station building, where experiment work is constantly in progress.

LIBRARY.—The library contains several hundred pamphlets and 3,000 books that have recently been very carefully selected. They cover the fields of thought to which it will be most useful for students to turn their attention—general literature, travel, biography, political economy, sociology, metaphysics, history, fiction, poetry and the technical works of the several departments.

The library room contains periodicals that represent the leading lines of modern thought. It is a well equipped section of the college work and free to college students.

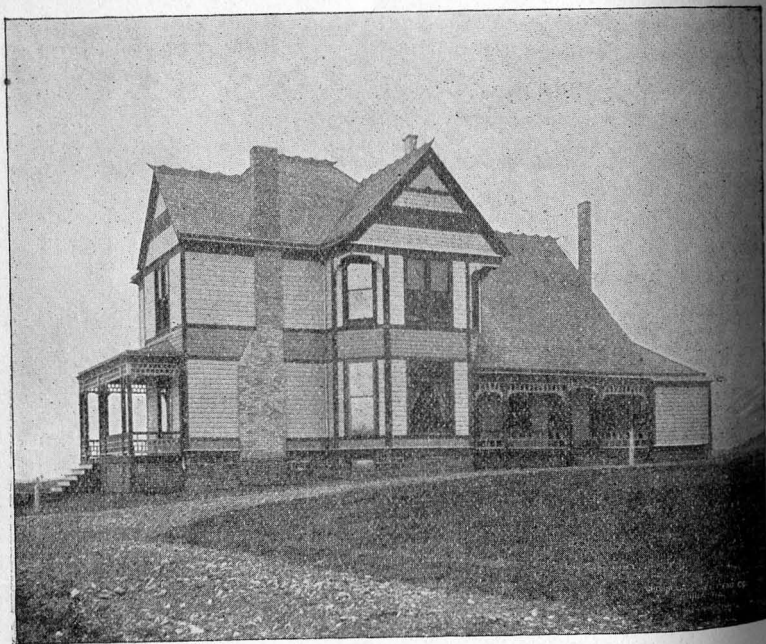
MUSEUM.—A collection for a general museum upon which the several departments of the college may draw for means of illustrating class room teachings, has already acquired importance. A fund has been devoted to this feature of the college work.

APPARATUS.—Each of the five departments of instruction has a collection of apparatus and materials for illustration. Under the explanation of each course of instruction will be found a statement of the means provided for illustrating the subjects taught. About \$35,000 has been expended or is being expended for means of illustration.

FARM.—Eighty-five acres of land are used for instruction in the art and science of agriculture and of horticulture. Three and one-half acres of ground located close to the college building are set aside for the sole use of students for athletic sports.

INSTRUCTION.

The existence of the Agricultural College of Utah rests upon the development of the sciences as unfolded in the immediate past. Its distinctive work will be, in addition to giving a liberal



FARM HOUSE.--SEE PAGE 16.

education, teaching those sciences related to industry, and pointing out, as far as possible in college life by actual manual exercise and by the use of apparatus and of materials and agencies used in the arts, their application to industrial life. This work evidently requires men of special instruction and experience. The instructors are all specialists of a high order of attainments in their several fields of instruction, and their work is comparable with that of the better colleges of the country. The instructional policy of the college is based upon the belief that all studies serve the purpose of drill, hence little time is wasted in pursuit of the relatively inconsequential truths and time is concentrated on central principles and in teaching students to think for themselves. Where mere information is memorized it is of the more valuable character, and when general principles are inadequate for the student to clearly grasp the desired information. One reasoner is worth a dozen imitators.

COURSES OF STUDY.

The college work includes five distinctive lines of instruction, four special courses and a Preparatory Department.

1. Course in Agriculture.
2. Course in Domestic Arts.
3. Course in Mechanical Engineering.
4. Course in Civil Engineering.
5. Business Course.

The special courses are as follows:

1. Three years' Course in Agriculture.
2. Irrigation Engineering.
3. Two years' Course in Domestic Arts.

In addition to these special courses there have been organized two courses of winter lectures, covering ten weeks each, namely: A course of lectures for the Agricultural Department and a course of lectures for the Domestic Arts Department.

The Courses in Mechanical and Irrigation Engineering will be Post Graduate Courses of one year each.

Preparatory Department.

The state of development of our public schools requires, for a few years to come, a preparatory course of one year for students unable to pass an examination for entrance to the college courses. This, it is hoped, will be only a temporary necessity. The college is desirous of avoiding the necessity of preparatory studies, yet it believes that at present, those who are denied the privilege of a not overcrowded common school of a high grade, and who propose to pursue their studies at this college, will find it advantageous to fit themselves in its Preparatory Department to enter the college.

The class room exercises of this department are one hour each daily and are conducted as much for the mental discipline given as for the facts imparted. Students in this department are at a period of mental development when it is more important that right methods of instruction be pursued than it is at any later period of life.

Acquiring facts is of far less importance than learning how to think. Cobbett said that one ounce of reason is worth whole tons of memory. A student who merely learns facts will never become a scholar nor an original thinker. He will remain a follower, not a leader.

It has been found that students who come to this college from our common schools require further discipline in the elementary studies.

PREPARATORY COURSE.

Hour.	FIRST TERM.	SECOND TERM.	THIRD TERM.
1.	Penmanship.	Grammar.	Grammar.
2.	Grammar.	U. S. History.	Arithmetic.
3.	Geography.	Arithmetic.	U. S. History.
4.	Orthography, 8 weeks. Reading, 8 weeks.	Physical Geography.	Physical Geography.

This preparation fits students for the several courses of college study.

COURSE IN AGRICULTURE AND SCIENCE.

It has been said by a great poet that "All nature is but art unknown to thee." This being so, agriculture is the art of arts, for it unceasingly deals with nature and is thereby brought into daily contact with life and the sciences related to life. In the management of soils and in the use of tools it comes in contact with physical and mechanical laws, and in the markets, with commercial and political laws. Very happily agriculture deals with more of the sciences than does any other industry, thereby causing agricultural education to become more nearly a liberal education than the education that is necessary to any other industry or profession. Very nearly all natural sciences are involved in farming, so that a well educated farmer is virtually liberally educated as a citizen.

In the following course of instruction very few studies are involved that are not an essential to the most successful farmer. It may be well termed a course in the applied sciences.

Heretofore agriculture has been without guiding laws. It has been a "rule of thumb" business. It is now rapidly becoming the most learned of the industries or professions. Of its profundity there can no longer be any doubt. The inherent fascination of its living forms and of its complex and intricately balanced laws will yet attract to it the best talent, as it is the finest field for industrial gratification and for the development of the highest order of intellectual and physical manhood.

Statistical inquiry has shown that in the several countries of Europe the produce per acre is increased over that of the most illiterate countries by the increased ratio of the population that can read and write. The same fact is found to exist between the states of the Union. A single illustration of the general law will be given. In 1860 fifty-three per cent of the population of France and nearly all the population of Germany could read and write. In the former country the crops were 18.50 bushels per acre while the latter yielded 22.05 bushels. Germany is a poorer country for agriculture than France, yet the yield is nearly twenty per cent more than that of France. Germany has more Agricultural Colleges and Stations, and erected them earlier.

COURSE IN AGRICULTURE.

FRESHMAN YEAR.

Hour. 9:00 to 9:55. Grammar.	Rhetoric.	Literature.
9:55 to 10:50. Arithmetic.	Algebra.	Algebra.
10:50 to 11:20. Military Drill.	Military Drill.	Military Drill.
11:20 to 12:15. Elocution, 2 Free Hand Drawing. 3	Elocution. 2 Free Hand Drawing 3	Elocution. 2 Free Hand Drawing. 3
12:15 to 1:10. Manners and Morals, 2 Horticulture. 2	History of Agriculture, Farm Bldgs. & Fences. 3	History, description and management of Cattle, Horses, Sheep and Hogs 3
2:00 to 4:00. Shop Work in Wood. 3	Shop Work in Wood. 3	Shop Work in Iron.

SOPHOMORE YEAR.

9:00 to 9:55. Botany. 3	Organic Chemistry.	Agricultural Chemistry.
9:55 to 10:50. Chemistry.	Physics.	Physics.
10:50 to 11:20. Military Drill	Military Drill.	Military Drill.
11:20 to 12:15. Geometry.	Book-keeping. 3 Arg. Rhetoric 2	Horticultural Work. 1 Surveying. 4
12:15 to 1:10. Essays and Arg. Rhetoric. 2 Horticulture. 2	Horticulture. 3	Botany. 2 Surveying. 3
2:00 to 4:00. Chemical Lab- oratory. 3 Horticultural Practice. 2	Chemical Laboratory. 3 Physical Laboratory. 2	Chemical Laboratory. 2 Physical Laboratory. 2 Botanical Laboratory. 1

JUNIOR YEAR.

9:00 to 9:55. Anatomy and Physiology.	Entomology.	Geology.
9:55 to 10:50. Botany.	History, description and manage- ment of Cattle, Horses, Sheep and Hogs. Stock Breeding.	Soils. Farm Machinery.
10:50 to 11:20. Military Drill	Military Drill.	Military Drill.
11:20 to 12:15. Literature. 3	Logic. 4 Shakespeare. 1	Literature.
12:15 to 1:10 Zoology. 2 General History. 3	Physiology.	Civil Government.
2:00 to 4:00. Dairy Practice. 3 Botanical Laboratory. 2	Agricultural Practice. 2 Mineralogy & Lithology 3	Farm Practice. 2 Mineralogy, Lithology and Geology. 2

SENIOR YEAR.

9:00 to 9:55. Dairying, Farm Crops and Irrigation.	Irrigation. Manures.	Thesis Work.
9:55 to 10:50. Psychology, 10 weeks. Moral Science, 6½ weeks	Political Economy.	Veterinary Science.
10:50 to 11:20. Military Drill	Military Drill.	Military Drill.
11:20 to 12:15. Veterinary Science.	Veterinary Science.	Farm Management. Animal Nutrition. Drainage.
12:15 to 1:10. Either German, French, Spanish, Chemistry or History of Civilization.	Either German, French, Spanish, Chemistry or Astronomy.	Either German, French, Spanish, Chemistry or Sociology.
2:00 to 4:00. Farm Practice. 2 Chemical Laboratory, 2 Music (optional.) 1	Farm Practice. 2 Chemical Laboratory. 2 Music (optional.) 1	Farm Practice. 2 Chemical Laboratory. 2 Music (optional.) 1

The degree of B. S. (Bachelor of Science) is given to those who complete this course.

POST GRADUATE WORK.

Those completing the above course will have the privilege of any of the classes of the other courses. In addition, advanced work in Chemistry, German, Spanish, French, English, Physics, Biology, Drawing and Music for a year; Botany three days in the week for a year; Horticulture two days a week for the year; Agriculture and in other studies.

These studies are added to accommodate our rapidly increasing number of students who may desire advanced work and to obviate the necessity of the youths of the Territory going abroad to secure a more complete education in the direction that this college is teaching.

Aside from the fact that the four years' course is now one of the very strongest, if not the strongest, technical course in Agriculture in the country, it becomes a good, strong, general science course when the added year is included.

The technical course in Agriculture brings into use seven specialists who deal directly with farm problems.

REMARKS.

AGRICULTURE.—An exercise a day for two years is given to technical instruction in agriculture. The greater part of the instruction is given by lectures and by field exercises, as very few works on agriculture are adapted to school room study.

In these lectures are considered the history of the development of the art and science of agriculture; farm buildings and fences, farm implements—their development, care and use; the development and characteristics of the various breeds of cattle, horses, sheep and swine; the art and science of breeding; soils—their origin, classification and their physical laws; tillage of soils in its relation to the physical and chemical condition, and to moisture and to crops; manures—their composition, value, preservation, preparation and use; farm crops—their character, improvement, seeding, cultivation, harvesting, preservation; feeding—animal digestion, food value of crops and their combination for feeding to the several classes of animals, and the art of feeding; dairying in all of its complex relations, and the application of the knowledge acquired to the art of organizing a successful type of farming of a high order.

The dairy work will be in charge of one familiar with the art and science of dairy. This feature of the instruction in agriculture will be made prominent. Our Territory imports a large amount of the best grades of butter, notwithstanding it has an exceedingly favorable climate for production, and harvesting foods fitted to produce these grades in their highest perfection.

The lecture room and the farm will be wedded. Exercises on the farm and excursions to farms successfully conducted will afford means of converting abstract into concrete knowledge, or theoretical into practical knowledge. Successful farmers will be invited to deliver lectures to the students, who will thus be brought into contact with those speaking wholly from the practical side of farm problems. A statement of the means in the possession of the college for illustrating the teachings of the lecture room will be found on the following pages.

HORTICULTURE.—Instructions will be given both by lectures and by field exercises. A daily recitation or a daily exercise for the entire year is required to complete the studies of this subject. Instruction will be given—on the preparation of ground for garden vegetables and in their improvement, planting, cultivation and general care; on the propagation, cultivation and general care of small fruits; harvesting, preservation and general care of large fruits and management of fruit trees. This instruction will include seeding, grafting by the various methods, budding, pruning, as well as picking, packing and marketing fruit.

Forestry will receive considerable attention. Students will have opportunity to work upon the forestry grounds of the college, and to note methods of planting and care of the several kinds of trees, and to observe their habits and rapidity of growth.

The grounds of the Horticultural Department contain a large number of the most promising kinds of economic trees. The extremely high price paid for hard wood lumber in Utah, makes it probable that rare kind of trees may be grown here at a profit.

The management of green house plants, including flowers, will be taught to the young women of the college.

Horticulture is approximately a polite art, and a knowledge of it is becoming more and more prized by all classes of citizens. This department, therefore, will be made a strong one. Effort will be made to blend theory and practice as perfectly as possible.

Practice in the departments above referred to keeps students in frequent exercise in practical matters and aids in retaining the love of active life which it is claimed is often lost during education at academic institutions.

ENTOMOLOGY.—This subject will be taught with special reference to insects injurious to vegetation. The world is now in a measure conquering the insect foes of plants, and has accumulated valuable information that will be imparted to the students. Packard's *Entomology for Beginners* is used as a guide.

SHOP WORK.—Three exercises of two hours each per week for the fall and winter terms and five days for the spring term, will be devoted to work at the forge with iron and at the bench with wood. Skill in handling ordinary carpenters' tools,

and in common blacksmith work will be acquired. Habits of accuracy and of perfection in the details of work will be taught that will remain as a force or mental habit to affect after life. The design is to acquaint young farmers with the manipulation of tools and with some of the principles involved, for their own use on the farm. This work has been found to be one of the most popular and useful parts of courses in agriculture. A bench with a full set of carpenters' tools is assigned to each student. The forge shop with power blasts occupies a separate room, where upsetting, tempering, welding and forming tools are taught.

BOTANY.—Elementary Botany will commence the first term of the sophomore year. During this term the student will become familiar with the roots, stems, leaves and flowers of plants. Each student will be required to do field work.

The third term of the sophomore year will be given to the study of physiological botany and of plant analysis. Each student will be required to collect, name and properly mount specimen plants. Text-book—Structural and Systematic Botany, by D. H. Campbell.

The first term of the junior year, the study of cryptogams and economic botany will be taken up. Two afternoons each week will be given to the microscopic study of the structure and diseases of plants. Especial attention will be given to such fungi as are injurious to cultivated plants.

PHYSICS.—The course in General Physics covers two terms. During the first term, especial attention is given to mechanics and heat, every principle being illustrated and explained by the use of the extensive apparatus belonging to the department. Especial prominence is given to those principles on which depend the applications to every day life.

During the second term, lectures are given in electricity, sound and light. Enough knowledge of these subjects is gained so that the student will understand in a general way all the important applications of these subjects.

In the engineering courses, much more time is given to the study of advanced general and experimental mechanics, and the study of the theory of heat.

In the course in Mechanical Engineering, one hour per day for two terms is devoted to the thorough study of the theoretical and practical side of electricity, and the study of modern electrical apparatus.

All the instruction in physics is well supplemented by practice in the laboratory, and the work is so designed as to require quantitative results, even in elementary work. In the advanced work, it is the endeavor to have students derive their own constants and plan their own work.

The physical lecture room has seats for fifty students, and the laboratory can be arranged to accommodate about the same number.

GEOLOGY, LITHOLOGY AND MINERALOGY.—Fifty lectures in general and economic geology are given in the spring term. More prominence is given to structural geology, including the formation of rocks and soils, than to historical geology. One afternoon each week is devoted to field excursions and to practice in determining the more common rocks.

In the winter term six hours per week are devoted to laboratory practice in determinative mineralogy, giving especial attention to the rock-forming minerals. Two recitations per week, based on Dana's Mineralogy, are designed to supply the necessary theoretical information.

The instruction in mineralogy and geology is rendered more attractive by the frequent use of the college cabinet of rocks and minerals, containing some 5,000 specimens.

CHEMISTRY.—I. *Inorganic Chemistry.* Instruction in this subject begins with the sophomore year. Five lectures and recitations per week during the first term are devoted to a consideration of the elements of the science, embracing the history of chemistry, chemical affinity and the laws of chemical combination; elementary substances, their geographical distribution, preparations, properties, combinations, technical uses, and the applications of chemistry in the arts and manufactures. Text-book—Remsen's Briefer Course and Lectures. This work is supplemented by a short course in the laboratory intended to illustrate principles discussed in the class room and to train the

student in methods of chemical manipulation. This laboratory course occupies six hours per week for eight weeks.

2. *Organic Chemistry*.—In the second term a course of fifty lectures is given in organic chemistry in which the principles of the science are discussed, and the student is made familiar with the source, preparation and uses of the more important compounds.

3. *Qualitative Analysis*.—One hundred and fifty hours are devoted to laboratory work in this subject. Under the direction and supervision of the Professor of Chemistry the student applies with his own hands the reagents required to determine the composition and properties of bodies; he thus secures a practical knowledge of the methods employed in such investigations. This work is deemed extremely valuable from an educational as well as a practical point of view. Each student is required to make an analysis of at least fifty unknown substances.

4. *Agricultural Chemistry*.—This subject is treated in a course of lectures, given in the spring term of the sophomore year, in which the following subjects are discussed: composition of plants, sources of plant food, manures, general and special chemistry of animal nutrition and kindred topics.

5. *Quantitative Analysis*.—In the senior year the quantitative chemical analysis is an elective study for students in the course of science and agriculture, open to those who have taken the required work in chemistry. This course requires twelve hours laboratory work and two lectures per week during the senior year, and includes a consideration of the more valuable gravimetric and volumetric determinations.

Post graduate and special students will be given an opportunity to do advanced work under the supervision of the professor in charge.

ANATOMY AND PHYSIOLOGY.—This is a junior study, occupying the first two terms. While this is primarily a course in human physiology, the anatomy and physiology of the domestic animals are considered from a comparative point of view. The course is illustrated by models and anatomical preparations, diagrams and dissections representing the comparative structure

of the principal organs in the different branches of the animal kingdom.

Each student is expected to become familiar with the appearance, structure and relations of the organs of the animal system in the normal state. Opportunities are given for the study of the minute structure of the various tissues by means of the microscope.

VETERINARY SCIENCE.—Lectures and recitations occur daily during the senior year, in which the following topics will be considered: Anatomy, physiology and hygiene of farm animals; zymotic, parasitic, dietetic and constitutional diseases of domestic animals; prevention of animal plagues by legislative and individual action; general diseases of different systems of organs in domestic animals, together with clinical demonstrations as opportunity offers.

CHEMICAL LABORATORIES.—The rooms of the chemical department are located in the north wing of the college building and include a large, well-lighted lecture room, a laboratory fitted with hoods, gas, water and individual tables to accommodate sixty students, together with storeroom, balance-room and office.

ENGLISH.—The work in English embraces grammar, rhetoric and literature, and runs parallel through all the four-year courses as far as the second term of the junior year. In grammar, after a review of etymology, with special attention to the formation of the verb, the structure of the English sentence is carefully examined. Nearly a term is spent in analyzing sentences from classic authors. This is believed to secure better results than spending time in the correction of false syntax. This work is followed by a term of elementary rhetoric. In this the principles of invention, the elements of style and the different forms of composition are studied. The preparation of manuscript for the printer is taught in connection with the written work. Essays are required once a fortnight, mostly reproductions, illustrating the laws of description and narrative. In the more advanced rhetoric the rules of argument are studied, and to illustrate and enforce these some masterpieces are critically examined. Frequent oral and written exercises make the work entirely practical.

The first work in literature follows the elementary rhetoric. It is a critical study of short, complete classics—essays, poems of various kinds, speeches, sketches and stories. Enough of each author and his times is told in familiar lectures to awaken interest and show the occasion of the production. In this work constant reference is made to rhetorical principles, and the style of different authors is carefully compared, and both style and form are studied with reference to the thought and sentiment. The second term's work is given to a historical survey of literature from Chaucer to the present time. Sufficient attention is given to the leading authors of the different periods to make evident the characteristics of their thought and style. The English drama receives special attention, and one day each week for two terms is given to reading Shakespeare. The last term of the junior year is given to the study of masterpieces. All the important forms of literature are laid under contribution—the drama, the epic, the lyric, the novel, the essay, biographical and critical, the oration and history. One week is given to each piece selected. The work of the class-room is largely a report of students, either oral or written, on what they have done by themselves.

GERMAN AND FRENCH.—These languages are optional during the senior year. The Germans are now the leaders in agricultural science. The advanced student of agriculture must be able to read the literature on his subject coming from the German press. French is necessary to the advanced student of domestic arts. This is the reason for the appearance of these languages in the courses. Both are taught after the same method. Oral and written exercises are accompanied by conversation, making more familiar the vocabulary and accustoming the ear as well as the eye to the words. In the time allotted only the framework of the languages can be mastered, but enough is given to enable the student to prosecute independent study and consult German or French books.

HISTORY.—The history of the United States receives due attention in the preparatory course and is taught with a view to illustrate the life of the people at various periods; the evolu-

tion of their system of government; their manners and customs and their gradual advancement in comfort through inventions, and in culture through literature.

The same objects are kept in view in an elective course in general history which is offered to more advanced students.

CIVIL GOVERNMENT.—This covers the field of United States history more philosophically in the junior year and traces the progress of constitutional liberty through the long line of English history and in our national and state constitutions and treats of the organization of territorial and local governments. Interest is imparted to this study by free discussion and occasional debates on questions of the day.

POLITICAL ECONOMY.—This is studied by text books and by lectures. The text book gives the established scientific principles of economics. The lectures examine the subject by the historical and statistical methods and to seek to find in all history and even among prehistoric nations, examples in accordance with which nations, states, cities and private business may be managed to advantage; and then accumulate data from statistics of wages, taxation, population, emigration, profits in all occupations, etc., for the purpose of rigidly testing the comparative methods of various systems and establishing a system may approach perfection.

ELOCUTION.—It is the object of this department to make good readers, better conversers and good speakers; to make the voice and the body fit instruments to serve the soul and mind. The course then will include the development of the voice and the training of the body to respond to the changes of the soul's emotion.

First Term.—Physical culture, voice culture, articulation and light reading.

Second Term.—Inflection, pronunciation, gesture, and expressive reading.

Third Term.—Gesture continued, practical work in recitations and impersonation.

MEANS OF ILLUSTRATION.

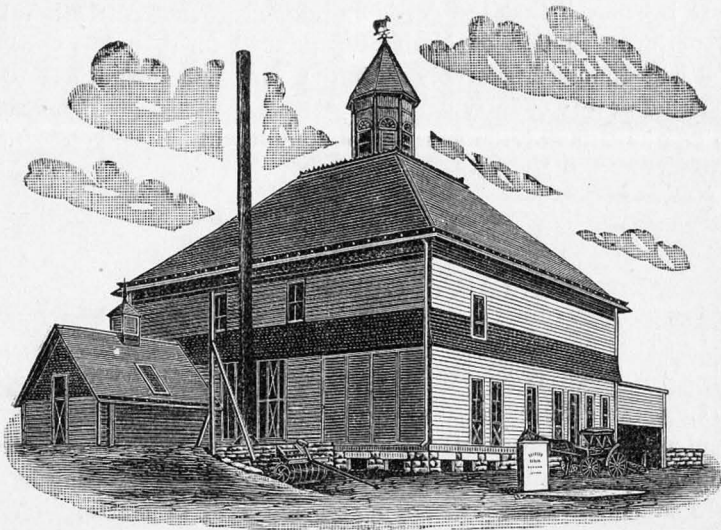
LABORATORIES.—The apparatus and means of illustration in the Chemical, Physical, Botanical, Veterinary, Agricultural and Horticultural Laboratories, Museums and Libraries, together with farm and horticultural appliances and pure bred stock are valued at \$32,000. Already the college has secured from Prof. M. E. Jones, 4,500 species of the flora of Utah and the intermountain region for the Botanical Laboratory. In addition to the Chemical Laboratory of the college, the Experiment Station has a Chemical Laboratory that is equipped at a cost of \$2,500.

LIBRARY.—The library contains a large and choice selection of agricultural books, and the reading room is supplied with agricultural papers.

MUSEUM.—The museum contains material for classroom illustrations for this department. Over four hundred slides for use in the magic lantern illustrate processes that cannot be shown in practice, while collections of wools, grain, some forty milling products of wheat, etc., etc., afford means of teaching by the eye rather than by the ear.

The Experiment Station affords a most valuable means of illustrating farm processes and has the added advantage of stimulating the thinking and observing powers as no other means of object teaching can do; for the station is engaged in testing methods and in searching for unknown laws.

THE FARM.—On the farm proper there are over three hundred and thirty plats laid out for investigations. These cover time for irrigation, amount of water to use, sub-irrigation, night versus day irrigation, method of fitting ground for irrigation and other irrigation trials. They include trials of variety of wheat, corn, oats, barley and of forage crops; of mulching; drilling against broadcasting methods of tillage, time of tillage, depth of tillage, several methods of plowing, no tillage, depth of planting, distance of planting, time of sowing, amount to sow, selected seed, time of harvesting, chemical fertilizers, methods of manuring, varieties of grass for hay, varieties of grass for pasture—to be tested by actual grazing trials, mixed grasses for pasture, several crop rotations and soil and other studies.



THE MODEL BARN.

THE DAIRY.—A series of rooms designed for butter and cheese making, cover a space of 36x80 feet. These rooms are equipped with modern conveniences for the production of the best grades of butter and cheese. In these rooms students will apply in practice the theories learned in the classroom.

Some twenty-six feeding trials with cattle, sheep, horses and hogs are in progress. Pure bred cattle of the Shorthorn, Jersey and Angus breeds and Shropshire sheep and Berkshire swine are raised. These are all highly bred and model animals.

HORTICULTURAL DEPARTMENT.—In this department there is a series of the most important economic trees under test. Many have been introduced by the station. One hundred varieties of apples, many varieties of pears, peaches, plums, grapes, strawberries, raspberries, blackberries, potatoes and vegetables of various kinds are on trial, while several lines of horticultural investigations are in progress.

CHEMICAL DEPARTMENT.—The chemist of the station will carry forward a large amount of chemical work in plant and animal life and on soils, etc.

It is believed that the Agricultural College and Agricultural Experiment Station of Utah are equipped for first-class work and will compare favorably with the very best institutions of the kind in this country.

The bulletins of the experiment station will be sent free to any one asking for them.

LITERARY OPPORTUNITIES.

LECTURES.—Members of the faculty and speakers from abroad will deliver lectures in the chapel at regular periods.

LITERARY SOCIETIES.—The students of the college have organized two literary societies, one for young women and one for young men, thereby affording an opportunity of acquiring before an audience self-possession, ease and skill in debate. The other means for advancing the literary tastes and acquirements of its members that are common to such societies—essays, orations, papers, etc.—are included in the exercises of these societies.

GYMNASIUM.

The addition to the college building contains a gymnasium seventy feet square. This room will be equipped for the present college year. Exercises will be systematically conducted under the supervision of the department of physical culture.

Department of Military Science and Tactics

This course includes both theoretical and practical instruction and is in charge of an officer of the United States Army, detailed by the U. S. Government. All male students of the college proper are required to take this course unless excused by the faculty on account of physical disability or for some other valid reason.

Springfield cadet rifles and equipments are furnished by the U. S. Government for infantry drill and two rifled cannon for artillery instruction. A uniform of dark blue, with forage cap, is worn by the cadets, the cost being about fifteen dollars. On all occasions of military ceremony, during drill and when students are receiving any other military instruction they are required to appear in the uniform as prescribed by the college.

The practical instruction in infantry includes as far as possible all the movements described in the drill regulations of the United States Army, from the manual of arms and bayonet exercise in the school of the soldier to the drill by battalion; target practice with the rifle, for which the government makes an annual allowance of ammunition, and instruction in signaling with flag and torch and in military telegraphy.

Artillery instruction embraces drill in the manual of the piece, mechanical maneuvers and target practice.

Near the close of the school year, whenever practicable, the cadet battalion will go into camp for several days' practical exercises in marching, sentinel duty, constructing hasty intrenchments and other field work.

Theoretical instruction by recitations and lectures is given in the drill regulations, the preparation of the reports and returns of a company, the organization and administration of the army and the elementary principles governing the art of war.

The young women are also required to drill unless excused by the written request of their parents. A neat uniform-dress of dark blue is worn, with forage cap. The college supplies light rifles for drill.

THREE YEARS' COURSE IN AGRICULTURE.

FRESHMAN YEAR.

Hour. 9:00 to 9:55. Penmanship.	Grammar.	Grammar.
9:55 to 10:50. Grammar.	United States History.	United States History.
11:20 to 12:15. Geography.	Arithmetic.	Arithmetic.
12:15 to 1:10. Reading, 8 wks. Spelling, 8 "	History of Agriculture. Farm Buildings. Fences.	History, Description and Management of Cattle, Horses, Sheep & Hogs. 3
2:00 to 4:00. Shop work in wood. 3	Shop Work. 3	Shop Work in Iron.

JUNIOR YEAR.

9:00 to 9:55. Botany. 3	Organic Chemistry	Agricultural Chemistry.
9:55 to 10:50. Chemistry.	Physics.	Soils, Farm Machinery.
10:50 to 11:20 Military Drill.	Military Drill.	Military Drill.
11:20 to 12:15. Elocution. 2 Free-hand Drawing. 3	Book-keeping. 3 Elocution. 2	Botany. 2 Horticulture. 1 Surveying. 2
12:15 to 1:10. Manners and Morals. 2	Horticulture. 3	Surveying.
2:00 to 4:00. Chemical Lab- oratory.	Chemical and Physical Laboratories.	Chemical and Botanical Laboratories.

SENIOR YEAR.

9:00 to 9:55. Anatomy and Physiology.	History, Description and Management of Horses, Cattle, Sheep and Hogs and Stock-breeding.	Geology.
9:55 to 10:50. Botany.		Veterinary Science.
10:50 to 11:20. Military Drill.	Military Drill.	Military Drill.
11:20 to 12:15. Veterinary Science.	Veterinary Science.	Drainage, Animal Nutrition, Farm Management.
12:15 to 1:10.	Physiology.	Civil Government.
2:00 to 4:00. Dairying, Farm Crops, Irrigation.	Entomology.	Farm Practice.

This course is intended for those who cannot or will not incur the expense of the full course of study. It is a business course in agriculture. It is framed on the same plan that courses in law and medicine are, as a purely technical course, and is intended, as they are, to furnish economic technical information. English grammar is made an exception in the first year of the course. This year furnishes a small degree of preparation without which no student would be prepared to study the abstruse sciences involved in the field of agriculture, as it requires some preliminary training. A certificate stating the fact of the honorable completion of the three years' course will be given.

WINTER LECTURES.

A preliminary test of the public demand for a course of practical lectures on farming, one term duration, was inaugurated for the winter term of 1893. Several farmers entered the course and remained to its close. A larger class is hoped for during the winter of 1894.

Application should be made two or more weeks in advance of the opening lectures. A class of ten or more is required.

SPECIAL LECTURES IN AGRICULTURE.

Agriculture	50 lectures.
Horticulture.....	30 “
Entomology	10 “
Botany	10 “
Chemistry	20 “
Veterinary Science	20 “
Political Economy	10 “
Special Reading Course	50 exercises.

The lectures in agriculture will be confined to the most important practical questions in farming, such as tillage, drainage, dairying, breeding, stock feeding, manuring and to answering such questions as may occur to those taking the lectures. Horticulture, chemistry and other studies will be treated wholly from the practical side. Those principles that bear directly upon practical operations on the farm will be explained and their application pointed out. Political economy is included for the reason that farmers are now taking an active part in national affairs.

 DOMESTIC ARTS.

The course for young women will in general be the same as for young men in the four years' course in agriculture, except in the hours devoted to shop, farm, or horticultural work. In the place of these there will be special studies adapted to woman's work.

The value and necessity of special training in household economy is too well known to require explanation.

In view of this, special attention will be given to those branches of study in which young women require proficiency and to those studies which tend to adorn life in the sphere in which they move.

SENIOR YEAR.

9:00 to 9:55. Household Management.	Advanced Cooking.	Thesis Work.
9:55 to 10:50. Psychology, 10 weeks. Moral Science, 6 weeks.	Political Economy.	Fancy Work.
10:50 to 11:20. Military Drill.	Military Drill.	Military Drill.
11:20 to 1:10. Either Painting, Music, Fancy Work, Drawing, Chemistry, German, French, Spanish or History of Civilization.	Either Painting, Music, Fancy Work, Drawing, Chemistry, German, French, Spanish or Astronomy.	Literature.
2:00 to 4:00. Dairy Practice.		Either Painting, Music, Drawing, Chemistry, German, French, Spanish or Sociology.

This course brings the degree of B. S. (Bachelor of Science).

POST-GRADUATE COURSE.

The studies named in the post-graduate Course in Agriculture may be taken by the graduates of the Course in Domestic Arts, and in addition, science of nutrition, hygiene and home-nursing, music, drawing, sewing and elocution, each for the full year.

REMARKS ON THE SPECIAL STUDIES OF THE ABOVE COURSE.

PHYSICAL CULTURE.—Young women excused from military drill will be required to devote the time to the gymnasium.

COOKING.—The art as well as the science is taught. Exercises in the application of the knowledge acquired in the lecture-room are a regular feature of the work. Lectures in chemistry are succeeded by cooking. The cooking exercises are accompanied by practice in table-setting, table-waiting and presiding at the table as hostess. These exercises develop the knowledge and grace that characterize a well-bred hostess. For the development of this feature of the course the college is provided with a kitchen, dining-room, pantry, a cooking-range and kitchen and table-ware.

HOUSEHOLD MANAGEMENT.—This embraces the study of economy of time and strength in performing household duties; the arrangement of entertainments; the relations of mistress to maid, and the relation of the housekeeper to her environments.

DRESSMAKING, CUTTING AND SEWING.—These are taught in the freshman year, with instruction in the after years in fancy work and in the designing of artistic gowns. The work begins with hand-sewing, hemming, overcasting, blind-stitching and making button-holes; it is continued through cutting out, measuring, basting, fitting, draping, trimming and entirely finishing a gown. The students may furnish materials and make their own garments. It will be the aim also to teach hygienic modes of dress.

DAIRYING.—Butter-making and cheese-making are arts requiring rare skill. Milk is one of the most complex and unstable compounds known in the whole range of farm life. No other field of farm economy presents a product so irregular and with results so unfortunate. The problems involved are very complex and interesting. Very decided attention will be given to this most important field of work, over which woman has general charge. Fortunately, the more exacting work of the dairy now falls to other hands, but the necessity remains of mastery by woman of the philosophy of dairying.

HYGIENE.—A special course of lectures on hygiene will be given to the young women of this course.

MUSIC AND PAINTING.—Music and painting are given free of charge. They are not made compulsory studies, but those who have a taste for these graces and can acquire them are encouraged to devote time to them. No student will be allowed to take music who does not devote at least one hour daily to practice.

FRENCH.—This is made an optional study, in deference to the wishes of many of our citizens. Young women, are, however, encouraged to acquire French. It is still the diplomatic language of Europe, while its terms are used in the special studies of the young women of the college, and it is also more used in the domestic affairs of women than those of any other foreign language.

HORTICULTURE.—Horticulture has a fascination for all classes. Man has an inherent love of nature. Her living forms everywhere claim the admiration and almost the affection of every

cultivated or refined person. Garden and household plants are varied, are very plastic in our hands, and are either beautiful or useful. In either case they minister to our pleasure. Household plants and the farm and village garden are always objects of interest and of importance to women, and often the source of physical health, inducing, as they do, frequency in the open air. This does not necessitate the added drudgery of physical work in the garden any further than pleasure may dictate.

The growing taste for this refined field of agriculture warrants the devotion of some time on the part of young women to the principles and practices of at least a restricted field in horticulture. A special class is taught in floriculture, especially as adapted to window gardening; in the preparation of soil and in the growth of vegetables and small fruits.

SHORT COURSE IN DOMESTIC ARTS.

The same reasons that led to the organization of a short course in agriculture gave rise to the formation of a short course for those young women who desire to avail themselves of the distinctly technical work of the four years' course in Domestic Arts, but who are unable to pursue all of its studies. Those entering this course must pass, with a high grade, the examinations required for the full course or successfully pass through the preparatory year's work of this college.

SHORT COURSE IN DOMESTIC ARTS.

FRESHMAN YEAR.

Passing Grade on Preparatory Year.

Hour. 9:00 to 9:55.	Grammar.	Rhetoric.	Literature.
9:55 to 10:50.	Arithmetic.	Sewing.	Sewing.
10:50 to 11:20.	Military Drill.	Military Drill.	Military Drill.
11:20 to 12:15.	Elocution. 2 Free-hand Drawing. 3	Elocution. 2 Free-hand Drawing. 3	Elocution. 2 Free-hand Drawing. 3
12:15 to 1:10.	Manners and Morals. 2 Sewing. 3	Fancy Work.	Sewing.
2:00 to 4:00.	Laundry.		Cutting, Fitting and Designing.

9:00 to 9:55.	Anatomy and Physiology.	Organic Chemistry.	Household Plants, Small Fruits and Garden Culture.
9:55 to 10:50.		Cooking Lectures.	Cooking in relation to Dietetics.
10:50 to 11:15.	Military Drill.	Military Drill.	Military Drill.
11:15 to 1:10.	Optionals, including Music, Painting, Drawing, Fancy Work.	Optionals, including Painting, Music, Drawing, etc.	Optionals, including Music, Drawing, Painting, etc.
1:10 to 2:00.	Cooking and Canning Fruits. 3	Physiology.	Hygiene and Laboratory Practice.
2:00 to 4:00.	Dairying and Dairy Practice.	Chemical Laboratory.	

SPECIAL COURSE IN COOKING.

A special course in cooking will be given in the winter term to women desiring to perfect themselves in this work. No examination will be required as the course is designed for those who from lack of opportunity have been unable to become proficient in this important art. This work will include lectures in chemistry, household gardening, hygiene and cooking.

SCIENCE OF NUTRITION.—One term is devoted to the study of food materials in reference to their effect on man during health and during sickness. This includes how best to regulate the diet so that the proper nutritive ratio may be given more economically.

COURSE IN MECHANICAL ENGINEERING.

The growth of modern industrial arts springs from recent development of the sciences. Success in pursuing them rests, then, upon a knowledge of the laws involved. This implies a systematic study of related sciences. The value of general intelligence and of mechanical skill, finds striking illustration in the marketing of American mechanical productions in India and other countries, where labor is but one-twentieth of the rates paid here. It is believed that the effect of a strong department of Mechanical Engineering will be, through its graduates, to stimulate the development of the mechanical industries in this Territory. The presence of masters of the science of mechanics and of men trained to a high order of skill in the art of mechanical construction, can but result in increasing the number and in elevating the character of mechanical industries of Utah. The increasing call for mechanics skilled not only in the use of tools but also in the methods of applying the principles of mechanical construction is best testified to by the great demand made upon the mechanical courses of the various industrial colleges. The time has arrived when the successful mechanic, inventor or designer must not only think for himself but must have his thoughts and calculations guided by laws established by trustworthy investigations.

COURSE IN MECHANICAL ENGINEERING.

FRESHMAN YEAR.

Hour. 9:00 to 9:55.	Grammar.		Rhetoric.		Literature.
9:55 to 10:50.	Arithmetic.		Algebra.		Algebra.
10:50 to 11:20.	Military Drill.		Military Drill.		Military Drill.
11:20 to 12:15.	Elocution. 2 Free-hand Drawing. 3		Elocution. 2 Mechanical Drawing. 3		Elocution. 2 Mechanical Drawing. 3
12:15 to 1:10.	Manners and Morals. 2 Lectures on Use of Tools. 1		Mechanical Drawing.		Mechanical Drawing.
2:00 to 4:00.	Shop Work. 5		Shop Work. 3		Shop Work—Iron.

SOPHOMORE YEAR.

9:00 to 9:55.	Higher Algebra.		Organic Chemistry.		Descriptive Geometry.
9:55 to 10:50.	Chemistry.		Physics.		Physics.
10:50 to 11:20.	Military Drill.		Military Drill.		Military Drill.
11:20 to 12:15.	Geometry.		Arg. Rhetoric. 2 Mechanical Drawing. 3		Surveying. 4 Mechanical Drawing. 1
12:15 to 1:10.	Arg. Rhetoric. 2 Gen'l History. 3		Solid Geometry, 5 wks. Trigonometry, 6 weeks.		Surveying. 8 Mechanical Drawing. 2
2:00 to 4:00.	Chemical Laboratory. 3		Chemical Laboratory. 3 Physical Laboratory. 2		Chemical and Physical Laboratories.

JUNIOR YEAR.

9:00 to 9:55.	Heat. 7 Physics. 10		Hydraulics.		Elements of Mechanism.
9:55 to 10:50.	Analytical Geometry.		Calculus.		Calculus.
10:50 to 11:20.	Military Drill.		Military Drill.		Military Drill.
11:20 to 12:15.	Literature. 3		Metallurgy. 4 Shakespeare. 1		Mechanical Drawing.
12:15 to 1:10.	Theory of Pat- tern-making. 2 Mechanical Drawing. 3		Theory of Machine Work. 2 Mechanical Drawing. 2		Civil Government.
2:00 to 4:00.	Pattern-mak'g. 4 Foundry Practice. 1		Machine and Vise Work in Iron.		Machine Work in Iron.

SENIOR YEAR.

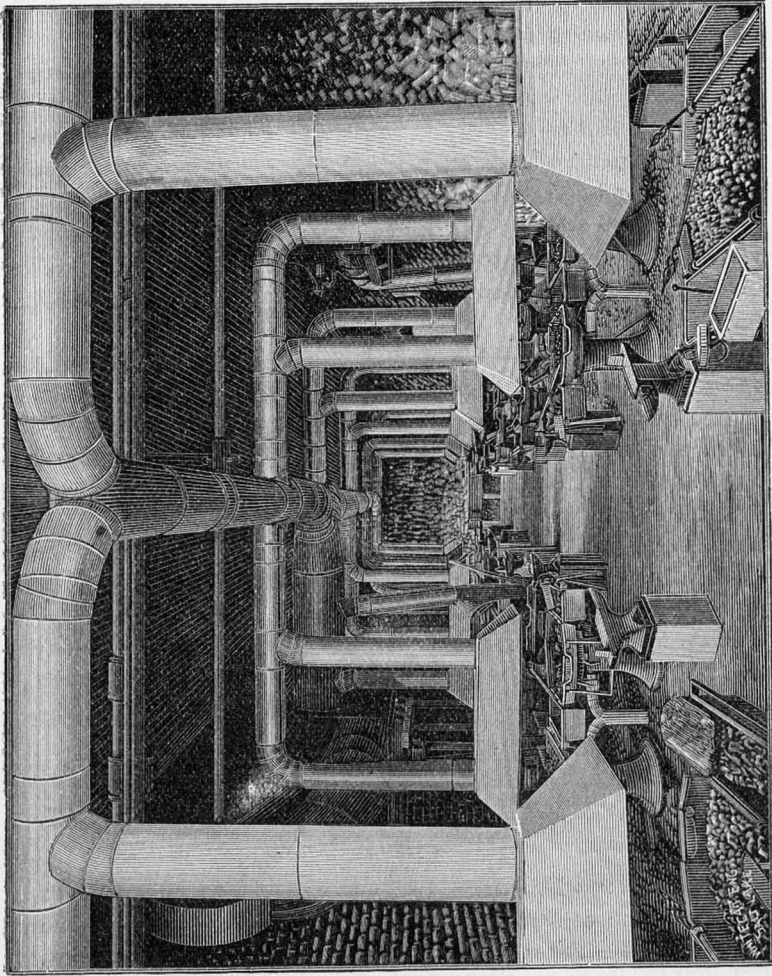
9:00 to 9:55. Botany.	3	Applied Mechanics.	Geology.
9:55 to 10:50. Steam Engine.		Political Economy.	Thesis Work.
10:50 to 11:20. Military Drill.		Military Drill.	Military Drill.
11:20 to 12:15. Analytical Mechanics.		Steam Boiler.	Applied Electricity.
12:15 to 1:10. Electricity and Magnetism.		Valve Gear.	Machine Designing.
		Mechanical Drawing.	Experimental Work.

The degree of B. M. E. (Bachelor of Mechanical Engineering) will be given to those who complete the course.

It will be seen by the course of study, that students are given a thorough training in higher mathematics, physics and chemistry, which involve the principles underlying all modern investigations. They are also given three years of training in the use of tools and of principles of construction in both wood and metal, including bench-work in wood, forging of iron and steel, pattern making, foundry practice, machine work and vise work in iron. In these departments, the purpose is to include as many principles for instruction as it is possible to do in the time at command, while at the same time insisting upon accuracy of work and the proper care of tools. The exercises in the shops are two hours daily.

The last two years are devoted largely to the study of the principles of machine construction and to actual work in designing. Steam and steam valves and valve movements and the economy effected by the use of high pressure steam in the compound engine, are thoroughly investigated and calculated. A careful study is made of the different forms of steam boilers, their construction and the materials used in them. The study of the steam engine and steam boiler is of vast importance, as by ignorance they may be converted from the most economic to the most wasteful of prime movers.

The properties of iron and steel, their strength and adaptability will be carefully investigated. Ten weeks will be given to the study of the properties and location of the various ores of iron,



FORGE ROOM.--SEE PAGE 48.

the fuel and refractory materials used in the conversion of the ore into iron or steel. It will be observed also that much attention is given to mechanical drawing, one of the prime requisites of a well-educated mechanic.

The various departments of the mechanical laboratory are equipped as follows: For bench-work in wood, wood turning and pattern making—thirty benches and ten lathes with necessary tools, pattern makers, rip and cross-cutting circular saw, band saw, and a variety of special tools.

For forge work—twenty-four power-blast forges, with anvils, vises and all necessary tools.

For moulding—a commodious room with flasks and fittings for practical work.

For machine work—24x24 inches by 6 feet iron planer, a 15-inch crank shaper, a universal milling machine, two 14-inch engine lathes with various attachments, speed lathes, a 25-inch drill press, sensitive drill, emery grinder, tool grinder, grindstones, and special tools, such as standard gauges, etc.

The machinery will be driven by an 8x10-inch Dick & Church automatic cut off, high speed engine, which will also be used for experimental work in engineering. All of the equipment is of high quality, with the latest improvements.

No charge will be made for use of appliances, but a deposit will be required, from which the cost of the material used will be deducted. This cost will be \$3.00 yearly for two years of the course.

POST GRADUATE STUDIES IN MECHANICAL ENGINEERING.

ENGINEERING DESIGN.—This will embrace to calculation of parts and the construction of original drawings for some one machine or plant of machinery to work under certain conditions, and will involve a thorough study of principles and best practice in such machinery.

DYNAMO ELECTRIC MACHINERY.—The study of dynamos and motors, direct and alternating currents, and the use of electricity in power transmission, come under this head.

The choice of studies in the Post Graduate Course of the Agricultural Department will be given.

COURSE IN CIVIL ENGINEERING.

The purposes of this course need no explanation in a territory pre-eminently requiring the services of the Civil Engineer. The mining interests of Utah, the immense work to be done in irrigation engineering before the vast sources of water in the Territory are utilized, fully demand this course in an industrial college. The first and second years of the course correspond to Mechanical Engineering Course.

COURSE IN CIVIL ENGINEERING.

First and second years same as course in Mechanical Engineering.

JUNIOR YEAR.

Hour.	FIRST TERM.	SECOND TERM.	THIRD TERM.
9:00 to 9:55.	Surveying.	Hydraulics.	Elements of Mechanism
9:55 to 10:50.	Analytical Geometry.	Calculus.	Calculus.
10:50 to 11:20.	Military Drill.	Military Drill.	Military Drill.
11:20 to 12:15.	Literature. 3	Applied Mechanics.	Roads and Pavements.
12:15 to 1:10.	Materials of Engineering.	Descriptive Geometry.	Civil Government.
2:00 to 4:00.	Field Practice and Surveying.	Drawing.	Hydrographic Surveying and Field Practice.

SENIOR YEAR.

9:00 to 9:55. Irrigation Engineering.	Applied Mechanics.	Geology.
9:55 to 10:50. Surveying and Geodesy.	Political Economy.	Railroad Engineering.
10:50 to 11:20. Military Drill.	Military Drill.	Military Drill.
11:20 to 12:15. Analytical Mechanics.	Municipal Engineering.	Bridges.
12:15 to 1:10. Engineering designs.	Graphical Statics and Stability of Structure.	Problems in Engineering.
2:00 to 4:00. Experimental Work and Field Practice.	Engineering designs.	Engineering designs.

This course ends in the degree of B. C. E. (Bachelor of Civil Engineering.)

MINING AND IRRIGATION ENGINEERING.

The present wealth and the future prospects of Utah rest largely upon mining and irrigation. When we consider the vast debt due to engineering in countries where irrigation is far more nearly perfected than it is here, when we reflect upon the great opportunities for water storage, the great waste of water under the present system of irrigation, and the probable near approach of the time when the forces of nature will be used in raising and controlling irrigating waters, it is plainly the duty of the college to foster this science as far as possible. The possible productive power of the water falling upon our water sheds, it is believed, is far greater than it is ordinarily understood to be. The extensive mineral resources of the Territory will, in their development in the near future, sustain a large and prosperous population. This population will call for the full agricultural resources of our valleys. This in turn will stimulate the husbanding of our water resources.

The head of this department has had an extensive experience in canal construction on a large scale, acting in the capacity of an engineer.

The privileges of the Mechanical Engineering Course will be open to the graduates of the Civil Engineering course, together with special work in mining and irrigation engineering.

COMMERCIAL COURSE.

The congressional law seeks to aid the "Industrial Classes." Business men and their agents represent a class of large importance; and any aid that the schools can render them is due them; nor will any advantage that the schools may confer be confined to this class; for all citizens are interested in perfecting our system of exchanges. Commercial knowledge increases the accuracy of methods and strengthens the judgment and widens the view of business men, and is therefore a power to its possessor.

A distinguished judge has stated that nine-tenths of the failures in business that have come before the court over which he presided, were accompanied by poorly kept books. Business requires a wide range of information beyond mere book-keeping. It is believed that acquaintance with the forms and the principles involved in trade to one about to enter it, whether as an agent or as principal, will prove of value both to him and to the public.

COMMERCIAL COURSE.

FRESHMAN YEAR.

Same as Preparatory Year.

JUNIOR YEAR.

Hour.	FIRST TERM.	SECOND TERM.	THIRD TERM.
9:00 to 9:55.	Grammar.	Rhetoric.	Literature.
9:55 to 10:50.	Arithmetic.	Spelling.	Typewriting (optional).
10:50 to 11:20.	Military Drill.	Military Drill.	Military Drill.
11:20 to 12:15.	Elocution.	Elocution.	Business Correspondence.
Typewriting, (optional.)	2	Penmanship.	
12:15 to 1:10.	Manners and Morals.	Book-keeping.	Civil Government.
General History.	2		
2:00 to 3:00.	Penmanship.	Typewriting, (optional.)	Penmanship.

SENIOR YEAR.

9:00 to 9:55. Book-keeping.	Commercial Arithmetic.	Book-keeping.
9:55 to 10:50. Book-keeping.	Political Economy.	Book-keeping.
10:50 to 11:20. Military Drill.	Military Drill.	Military Drill.
11:20 to 12:15. Arg. Rhetoric, $\frac{2}{3}$ Commercial Arithmetic	Arg. Rhetoric. 2	Literature.
12:15 to 1:10. Commercial Law	Stenography, (optional.)	Commercial Arithmetic.
2:00 to 4:00. Stenography, (optional.)	Book-keeping.	Stenography, (optional.)

REMARKS.

In order to secure its success and to insure the other courses against injury from those who are inclined to get a mere smattering of book-keeping and a little grammar, and then to pass out into the world as college graduates, it has been determined that those desiring the advantages of any commercial studies must take the full course or pass a critical examination in each study. It certainly is for the interest of students to make a thorough preparation for business if their aim is high.

The obvious utility and bearing of most of the studies is so clear that remarks touching them are uncalled for.

GRAMMAR.—To secure a first-class clerkship in this age, requires a command of good English. Business and professional men find that a knowledge of capitalization, punctuation, of grammatical construction and good diction is a commercial power, and whether they possess it or not they find it necessary to rely upon clerks, when their business is a large one, to write creditable letters. Grammar is therefore given a prominent place in this course.

HISTORY.—United States history, geography, civil government, business ethics, and political economy are deemed acquisitions important to both a business man and his aids. These studies give knowledge of the genius of our people, the

spirit of their laws, of the moral code that governs in honorable business transactions, and of the great laws that underlie the commercial growth of a nation, and upon which its laws should be based. Business men are active factors in the national existence, and find that their purposes and commercial powers are widened by knowledge in the fields covered by the studies named.

TECHNICAL STUDIES.—These studies are in charge of a man of business experience. The principal objection that the business man of today finds to the Business College graduate, is that he receives too much theory and not enough practice. To overcome this, book-keeping is taught throughout according to a system of actual business. Each student rents his own place of business, deposits money in the bank, buys and sells merchandise on all kinds of terms, thereby bringing into daily use such business forms as notes, drafts, checks, bill heads, statements, shipping invoices, account sales, receipts, deposit slips, certificates of deposit, mortgages, deeds, leases, insurance policies, bills of exchange and bills of sale.

He is keeping books according to the shortest and most approved methods in various kinds of business, such as general merchandise, grocery, dry goods, clothing, boot and shoe, hay and grain, coal, jobbing, commission, brokerage, manufacturing, joint stock companies and corporations. It will be observed that no two students' books are alike. Each one is buying and selling on his own account and recording his own transactions, and is relying upon his own judgment under the guidance of his instructor.

Banking and business counters afford the students opportunity for practice in banking exchange, and for the use of the various instruments that enter into business accounts and transactions. Typewriting and stenography are taught by one who is in daily business practice. This course is more complete than it is usually made by commercial colleges. The aim of the college is to do thorough work in all of its departments. To enter this course, applicants must pass the same examination required for entrance to the other college courses, and in addition United States history.

Those completing the Preparatory Course of this college will be admitted without further examination.

DIRECTION TO STUDENTS.

Logan is reached over a branch of the Union Pacific Railway, formerly known as the Utah & Northern Railway. Two passenger trains connect with Logan daily.

New students will be examined on Thursday and Friday, September 1st and 2d, for entrance to college. On passing their examinations students will be directed to the proper officer to pay their entrance fees. The receipt of this officer will be shown to the Secretary of the Board of Trustees, who will sign the same and enroll the name of the bearer, and record certain required data on his books. This receipt will then be taken to the President of the college, who will issue a class card containing the course of studies that may be selected. This class card will be shown to each professor under whom the studies are to be taken, for class enrollment. The card must be returned to the secretary of the faculty within three days of its receipt, or a demerit of five for each day that it is withheld will be given, after the expiration of the three days' limit. If retained over one week the student will be dropped from his classes.

On students' entering for the second and third terms, the cards will be secured from the secretary, when the studies will be assigned by the president and the cards signed by the professors; cards will be returned to the secretary, as before.

EXAMINATIONS.

Examinations for admission to the full College Courses will cover arithmetic to percentage, the elements of grammar, geography, and the elementary branches taught in our common schools.

To enter the Preparatory Department pupils will be examined in arithmetic to fractions, on the plan of Harper's Second Book and in simple sentences in grammar.

Students completing the course in the Preparatory Department of this college will be admitted to the college courses without further examination.

COLLEGE CHARGES.

Tuition is free, but \$5 will be charged as an entrance fee for each year of the college course. For a single term for irregular students the charge will be \$3. This sum is in lieu of the charges ordinarily made at colleges for library and other fees, so that the library, museums, etc., will be free to students.

In the chemical laboratory, work shops and cooking rooms, students will be charged for the cost of the materials actually used up by them in their exercises. This charge will be made only for the terms when the materials are used. This cost will vary from \$2 to \$3 per year.

Board at the new Club House will cost not over \$2 per week. This cost will include fires and lights, but not room rent. The room rent will be 50 cents per week. The income from this is used in paying the matron, the breakage of dishes and the wear and insurance of the building.

The character of the board is controlled by students who room at the Club House, and therefore the cost is determined by their wishes. The system works admirably. It has already been demonstrated that plain but good, substantial board can be furnished at \$2 per week.

Students boarding at private homes can secure board at from \$3 to \$3.50 per week. Students are neither required nor urged to board at the Club House. Students frequently rent rooms and board themselves for less than \$2 per week.

REQUIREMENTS AND DISCIPLINE.

1. Evidence of good moral character must be furnished by students when required. Daily attendance at chapel exercises is required. These exercises will be wholly devotional and completely non-sectarian. They are conducted by the faculty, and in part by members of each of the churches represented in Logan, but wholly as worship.

2. Students are forbidden to enter saloons. On the first infraction of this rule, the students disobeying it will be called before the faculty. On the second infraction, the fact will be stated to the school. The third infraction will result in expulsion from the college.

3. Non-resident students, under twenty-one years of age, are required to attend the church of their choice on Sundays during day service. Students bringing from their parents a written request to be excused from church attendance, will not be required to comply with this rule. When students do not bring a request to be excused from church attendance, it is assumed that the parents desire the faculty to enforce the rule in this respect. This assumption is made because it is known that parents generally desire that their children attend church; and as it is impracticable to communicate with parents, this method is adopted to meet their desire.

4. Students will be required to take four full studies, unless excused by the faculty.

5. Prompt attention to all duties assigned will be required of each student. Gentlemanly deportment towards all with whom the student comes in contact, whether the faculty, fellow students or citizens, will be expected. Failure in this direction will become, when the aggregate reaches a given standard, a matter of record and of faculty action.

6. Students having no class during any hour from 9 a. m. to 1 p. m., shall, if they remain upon the college grounds, pass the time in their boarding rooms, in the library, or some other place assigned them by the president.

Any student failing to comply with this regulation for the full hour will be demerited.

7. A student absent from either chapel or class room will receive five demerits.

These demerits will be cancelled if a satisfactory excuse is rendered within three days after return of a student who has been absent. If required, the recitation missed shall be made up.

8. Students will be excused from chapel exercises on written request of parents or guardians.

9. Misconduct in class may be demerited to the extent of five demerits. More demerits may be added by faculty action.

10. Misconduct in chapel or college halls or on college grounds may be demerited by the president or by faculty action.

11. Whenever in the opinion of the faculty the number of demerits warrants, the students and his parents or guardian shall be notified of his unsatisfactory conduct. When the number of demerits given to any student during any school year reaches 100, the student shall be expelled.

12. A perfect recitation shall receive a mark of 100 ; a monthly class record of less than 60 shall drop a student from a class. An average of less than 60 for all classes excludes from continuing in college.

13. Each instructor shall make a weekly report to the secretary of the faculty of the demerits given, and a term report of the class grades of students.

14. Scholarship marking will be as follows :

Above 95 per cent	-	-	-	Distinction.
90 to 95	"	-	-	1st Grade.
75 to 90	"	-	-	2d Grade.
60 to 75	"	-	-	Pass.

The passing grade in the Business Course will be 80. Less than 90 will be second grade. Above 90 is regarded as in the other courses.

Grades will be determined as follows : Examination papers will be returned to students when they are requested. These papers will have marked upon them the grading of each answer.

Daily recitation will count one-third.

Inter-term examinations count one-third.

Final examinations count one-third.

15. Students not entering their classes within five minutes after the bell rings shall receive two demerits, unless they render a good excuse.

16. The absence of a professor for five minutes after the bell rings excuses a class for the hour.

At the ringing of the bell the students have the privilege of leaving the class room.

17. Students cannot drop or change a class without faculty action.

18. No society bearing the name of the college or purporting to emanate from it shall be organized without the consent of the faculty, and the approval of its constitution and by-laws by the faculty.

19. Injury to college property by students shall be paid for to the extent of the injury, and if the injury be malicious, the student shall pay double the amount.

20. The use of tobacco in any form on the college grounds is prohibited.

21. Students from other towns boarding or living in Logan, must obtain excuses from the president in advance, when they desire to leave town during term time.

22. No excuses for absence are accepted unless for sickness, certified to by parents or boarding mistress, or for detention at home by parents for necessary reasons, to which parents or guardians certify.

23. Misconduct anywhere outside of the class room exercises or beyond the college grounds, will be cause for demerit.

24. For the first offense of cheating in examinations, a student shall receive twenty-five demerits, and for a second offense the student will be suspended.

LIST OF STUDENTS.

A

Adamson, Peter, Jr.....	American Fork
Ainscough, John Alfred.....	Smithfield
Allen, Andrew Thomas.....	Coveville
Allen, David Orlo.....	Huntsville
Allison, Carl.....	Coalville
Allred, William Lansing, Jr.....	St. Charles, Idaho
Anderson, Gustave.....	Providence
Anderson, John August, Jr.....	Ephraim
Anderson, Nyna Ruby.....	Salt Lake City
Anderson, Robert.....	Logan
Anderson, Sarah Smith.....	Smithfield
Anderson, William.....	Logan
Anson, George Daniel.....	Blackfoot, Idaho
Ashton, Lynne.....	Vernal

B

Ball, Blanche Bazette.....	Coalville
Ball, William Thomas.....	Coalville
Banks, Robert Taylor.....	Spanish Fork
Bates, Attena.....	Hyde Park
Bates, Richard Russell.....	Park City
Barrett, Arthur.....	Logan
Beck, John Forsyth.....	Spanish Fork
Bell, Adelbert.....	Logan
Bell, Effie.....	Logan
Bell, Eli Jasper.....	Logan
Bell, James Alfred.....	Logan
Bennett, Harry.....	Blackfoot, Idaho
Berntson, Albert.....	Logan
Berryman, Charles William, Jr.....	Blackfoot, Idaho

Beus, Ezra.....	Hooper
Black, Lillie Maud.....	Salt Lake City
Blanchard, Byron.....	Pleasant View
Bond, Kate Lanham.....	Ogden
Bond, Nancy Josephine.....	Ogden
Boudrero, Lehigh.....	Logan
Boudrero, Louis David.....	Logan
Boyden, Walter Mitchell.....	Coalville
Broberg, Ernest John.....	Logan
Brinkerhoff, Margaret.....	Park City
Brown, Annis Bisbee.....	Ogden
Brown, Bruce Lee.....	Ogden
Brown, May Anderson.....	Ogden
Browning, James.....	Ogden
Bunce, Emma.....	Logan
Bunker, Arthur.....	Bunkerville, Nevada
Bunker, John Mathison.....	Bunkerville, Nevada
Butler, Ella Leonora.....	Hooper
Bybee, Henry.....	Hooper
Bybee, Martha Joann.....	Riverdale

C

Caine, Florence Nightingale.....	Salt Lake City
Caine, Margaret Nightingale.....	Salt Lake City
Calder, Etta May.....	Salt Lake City
Calderwood, Robert Salmon.....	Coalville
Campbell, Margaret Elizabeth.....	Providence
Campbell, Mary Ann.....	Providence
Cantwell, Ambrosine.....	Millville
Cantwell, Harriet Emeline.....	Millville
Cazier, William Henry.....	Afton, Wyoming
Charles, John Griffith.....	Logan
Chipman, Eliza.....	American Fork
Chipman, Reuben.....	American Fork
Christensen, Alfred Anton.....	Newton
Christensen, Ephraim.....	Logan
Christensen, Ezra.....	Hyrum

Clark, Frederick George.....	Ogden
Cleveland, Stafford Charles.....	St. Charles, Idaho
Cole, Gilbert William.....	Logan
Cole, Sarah Elizabeth.....	Logan
Connelley, Thomas.....	Park City
Conrad, Winifred.....	Salt Lake City
Cragan, Wallace.....	Smithfield
Crawford, Alberta Blanche	Soda Springs, Idaho
Crawford, Jonathan.....	Brigham City
Crismon, Frank Winfred	Salt Lake City
Crittenden, Herbert Chauncey.....	Hoytsville
Crittenden, Oscar.....	Hoytsville
Crockett, Delia Sophia.....	Logan
Crockett, Fred. Waldo	Logan
Crockett, Henry Wallace.....	Logan
Crockett, Hyrum Enos.....	Logan
Crockett, John Alvin.....	Logan
Croft, Charlotte Louisa.....	Salt Lake City
Croft, Walter Leslie.....	Peterson
Crookston, Margaret Ann.....	Logan
Culmer, Will Fred.....	Salt Lake City
Cunningham, Maria Elizabeth.....	Petersboro

D

Dalrymple, Artemisia.....	Preston, Rich Co., Idaho
Davenport, Helen Remington.....	Hood River, Oregon
Davis, Martha Ann.....	Benson
Deal, Lillian Azalie	Provo
Deal, Romanzo Algernon.....	Springville
Dee, Thomas Leroy.....	Ogden
Dee, Thomas Leroy, Jr.....	Ogden
De Mott, Amelia	Logan
Derrick, Alfred Spriggs.....	Salt Lake City
Dougall, William Bernard.....	Springville
Druce, Richard Henry.....	Provo
Durnford, Emily Jane.....	Evanston, Wyo.
Dusenberry, Harvey Leland	Provo

E

Edlefsen, James Lawrence	Logan
Edlefsen, Mary	Logan
Edwards, John Henry	Logan
Eldredge, Lawrence Emery	Coalville
Eliason, Jennie	Logan
Eliason, Phoebe	Logan
Erwin, Robert Wesley	Fulton, Mo.

F

Farr, Harry	Logan
Farr, Joseph Albertus	Ogden
Farrell, Laura	Logan
Fenner, Alice Phoebe	Ham's Fork, Wyo.
Fife, Wallace	Providence
Fitzgerald, John Thomas	Park City
Fletcher, Charles	Logan
Fluckiger, Eliza	Providence
Ford, Thomas	Centreville
Frost, Peter	Glenwood
Funge, Frederick Lorenzo	Ogden

G

Gamble, Edith Virginia	Millville
Garff, George Peter	Draper
Geertson, Joseph	Huntsville
Gibson, Ella Edna	Smithfield
Goodwin, Frank Chambers	Logan
Goodwin, Lottie	Logan
Graehl, Charles August	Brigham City
Graves, Leon	Ogden
Gridley, Reuben J.	Richmond

H

Hall, Henry Clinton	Logan
Hancey, Lulo	Hyde Park
Hansen, Hans Christian	Logan

Hanson, Peter Christofer	Soda Springs, Idaho
Hanson, Selma Hortense.....	Logan
Hart, Alfred Augustus.....	Bloomington, Idaho
Hart, Sabina Hermoine.....	Bloomington, Idaho
Hawley, Edith Amanda.....	Lewisville, Idaho
Hayball, Alfred Hyrum	Logan
Hess, John Alma.....	Georgetown, Idaho
Hillman, Ira King, Jr.....	Oxford, Idaho
Holden, Edward Hezekiah.....	Logan
Holley, Henry.....	Springville
Holt, Lulu.....	Millville
Hopkins, Catharine Spencer.....	Butte, Mont.
Hopkins, Mary Alice.....	Blackfoot, Idaho
Hoyt, Martha.....	Kamas
Hughes, George.....	Spanish Fork
Humphreys, Thomas Hyrum.....	Paris, Idaho
Hurst, Leo.....	Logan
Hyde, Royal Justus.....	Salt Lake City

I

Ingalls, Fields Thexton.....	Springville
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J

Jacobsen, Annie Tomina Kathrina.....	Logan
Jensen, Charles A.....	Hyrum
Jensen, George William.....	Logan
Jensen, James, Jr.....	Pleasant View
Jensen, Oscar Henry.....	Oakley
Jessup, Maggie.....	Millville
Johnson, Carl Emanuel.....	Logan
Johnson, Martha.....	Logan
Jones, Daisy Syble.....	Montpelier, Idaho
Jones, John Henry.....	Montpelier, Idaho
Jones, Lewellyn Morris.....	Spanish Fork
Jones, Rasmus Eugene.....	Provo
Jones, Samuel Johnson.....	Provo
Jorgensen, Hansine Rebecca.....	Logan

K

Kent, Mary	Logan
Kilgore, Dora Isabel.....	Logan
Kimball, Alice Maud.....	Logan
Kimball, Ernest.....	Logan
Kimball, Florence.....	Logan
Kimball, Louie Presendia.....	Logan
Kimball, Mary Eliza.....	Logan
Kimball, Newell Whitney, Jr.....	Logan
Kimball, Orson Heber.....	Logan
King, Harv-y	Fillmore
King, James Purdie.....	American Fork

L

Larson, Aminte.....	Levan
Larson, Andrew Bernstoff.....	Levan
Larson, Emilie	Levan
Larsen, Christian.....	Logan
Lee, Ernest Albert.....	Springville
Lee, Frank Albert.....	Leorin, Idaho
Lewis, Eugene Beauharnais.....	Logan
Lewis, Frank Wilbur.....	Logan
Lewis, Helen Cora.....	Logan
Lewis, Henry Malin.....	Mesa, Arizona
Lewis, Howard Claude.....	Logan
Lewis, Leonard Ryan.....	Mesa, Arizona
Lewis, Martha Samantha.....	Mesa, Arizona
Lewis, Preston Crockett.....	Logan
Lewis, Thomas Cradock.....	Logan
Lewis, Walter Beers	Mesa, Arizona
Lightfoot, Frank Lasalle.....	Ogden
Lopas, Charles Henry.....	Pocatello, Idaho
Low, Sylvia Euphemia.....	Smithfield
Lundberg, Victoria.....	Providence
Lunt, Alfred Oscar.....	Nephi
Lunt, George William.....	Nephi
Lunt, Shadrach James.....	Nephi

M

Mack, Ada Jane.....	Smithfield
Mack, Moses Miller.....	Smithfield
Maddison, Walter Ernest.....	Providence
Magleby, Parley.....	Monroe
Malia, John Albisius.....	Park City
Margetts, Irven Richard.....	Salt Lake City
Marriott, David Charles.....	Ogden
Maughan, Mary Ann.....	Petersboro
Maxwell, James Alma.....	Peoa
Mayfield, Rosa Nell.....	Farmington
Mendenhall, Thomas Deal.....	Springville
Merrill, Amos Newlove.....	Richmond
Merrill, Lewis Alfred.....	Richmond
Merrill, Lorin Asa.....	Richmond
Merrill, Louis Edgar.....	Richmond
Merrill, Ralph, Jr.....	Smithfield
Miller, John Forsyth.....	Salt Lake City
Monson, Joseph Henry.....	Huntsville
Moore, Esther.....	Salt Lake City
Morrell, Margaret Wilkinson.....	Logan
Morrell, Walter Charles.....	Logan
Mortensen, Joseph.....	Brigham City
Mortimer, Emily Ann.....	Logan
Munk, Lottie.....	Logan
Munson, Edmund.....	St. Charles, Idaho
Murdock, Effie.....	Logan

Mc

MacDonell, Henry.....	Salt Lake City
McAlister, Roy.....	Logan
McDermott, Emily May.....	Clifton, Idaho
McLaughlin, Walter Wesley.....	Salt Lake City
McLaughlin, William Frank.....	Park City
McNiel, Ellen H.....	Logan

N

Napper, Charles Edwin.....	Logan
Nelson, Ann Janette.....	Smithfield
Nielson, Leo	Logan
Nielson, William.....	Pocatello, Idaho
Norris, Samuel John.....	Salt Lake City
Nyman, Andrew, Jr.....	Logan

O

Olsen, Alma.....	Logan
Olsen, Byron Leonard.....	Mount Pleasant
Olsen, Frank Henry.....	Mount Pleasant
Osborn, Robert Lee.....	Blackfoot, Idaho

P

Packard, Alpheous Oresta.....	Springville
Parrish, Ezra.....	Centreville
Passey, William Boyd.....	Mesa, Arizona
Peterson, Ida Elizabeth.....	Logan
Peterson, John Adolph	Logan
Peterson, Josephine.....	Logan
Peterson, Niels.....	Pleasant Grove
Peterson, Siegfried Gustave.....	Logan
Pilgrim, Ellen.....	Smithfield
Pitkin, Agnes Janett.....	Millville
Pitkin, Leonard Curtis.....	Millville
Pitkin, Sarah Ann.....	Millville
Pitkin, Willard.....	Millville
Pond, Charles.....	Lewiston
Porter, Andrew Leslie.....	Mount Pleasant
Pritchard, John Henry.....	Sydney, Neb.
Pugmire, Moroni Staniforth.....	St. Charles, Idaho
Pugmire, Nora Nelson.....	St. Charles, Idaho
Pugmire, Richard Staniforth.....	St. Charles, Idaho
Pugmire, Vincent Rich.....	St. Charles, Idaho
Pyper, Walter Thomas.....	Salt Lake City

R

Ravsten, John.....	Trenton
Raybould, Claude Melnotte.....	Salt Lake City
Read, Mary Ann.....	Smithfield
Rhead, Josiah Lewis.....	Coalville
Rice, Nanna.....	Logan
Rich, Sarah Jane.....	Montpelier, Idaho
Rich, Susanna Lenore.....	Montpelier, Idaho
Rich, Thomas Grover.....	St. Charles, Idaho
Ricks, George.....	Logan
Robertson, Alexander James.....	Spanish Fork
Robison, Robert Lewis.....	Logan
Rogers, George Washington.....	Logan
Rose, Charles Edward.....	Soda Springs, Idaho
Rose, Sarah May.....	Soda Springs, Idaho
Rosenbaum, Nettie May.....	Brigham City
Roskelley, Cassie.....	Smithfield
Roskelley, Sarah Rigby.....	Smithfield
Rowe, Lulu.....	Salt Lake City
Rust, Hilda.....	Logan

S

Sanborn, Alice.....	Logan
Sanborn, Belle Graham.....	Logan
Sanborn, Harry Edgar Wilson.....	Logan
Scarborough, Rhoda.....	Franklin
Seager, Orin Austin.....	American Fork
Shurtliff, Eva.....	Logan
Sill, Ada Avilla.....	Blackfoot, Idaho
Skeen, Willard Arthur.....	Plain City
Slater, James.....	Stockton
Slater, Marie.....	Stockton
Slater, Sadie.....	Stockton
Smedley, Frank Bailey.....	Bountiful
Smith, Arthur.....	Logan
Smith, Lucia Louisa.....	Ogden
Smith, Maria Jane.....	Lewisto _n

Smith, Mary.....	Smithfield
Smith, Parley Franklin.....	Lewiston
Smith, Robert McNiell.....	Logan
Smith, Roland H.....	Preston, Idaho
Smith, Willis.....	Smithfield
Snow, Chauncey Edgar.....	Brigham City
Snow, Florence Augusta.....	Brigham City
Snow, Hortense.....	Brigham City
Snyder, Gideon.....	Park City
Sorenson, Christian, Jr.....	Huntsville
Sponberg, Anna.....	Franklin
Stark, Louisa.....	Brigham City
Stark, Sylva.....	Brigham City
Stayner, George Colley.....	Salt Lake City
Steed, John Waddington.....	Farmington
Sterling, Hyrum.....	Spanish Fork
Stevens, George Leroy.....	Oakley
Stevens, Horace Henry.....	Oakley
Stevens, Sarah Kate.....	Ogden
Stevenson, Joseph E.....	Plymouth
Stevenson, Moroni Charles.....	Salt Lake City
Stewart, Isaac Perry.....	Logan
Stewart, John.....	Plain City
Streeper, Charles.....	Centreville
Stoddard, Jessie.....	Logan
Stohl, Lorenzo N.....	Brigham City
Stowell, Barnum.....	Logan
Stowell, Ephraim.....	Logan
Stowell, Harriet.....	Logan
Stowell, Nancy Louisa.....	Logan
Summers, Lola May.....	Lone Tree, Wyo.
Summers, Sterling.....	Lone Tree, Wyo.

T

Tarbet, Florence.....	Smithfield
Thiel, John Lewis.....	Park City
Thomas, Helen Hebden.....	Ogden

Thomas, Henry Lewis.....	Coalville
Thomas, Nathan.....	Logan
Thompson, Joseph Richard.....	Richmond
Thompson, Mabel.....	Logan
Thorpe, John Alma.....	Samaria, Idaho
Torgeson, George Albert.....	Logan
Travers, William Jasper.....	Salt Lake City
Turner, Fred Hyde.....	Logan

V

Vogle, Theodore Henry.....	Logan
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W

Watson, Wallace.....	Springville
Watson, William Elliott.....	Springville
Weaver, Ida Emily.....	Deep Creek
Webster, Charles Arthur.....	Montpelier, Idaho
Webster, Rosa Arminta.....	Montpelier, Idaho
Welsh, James William.....	Coalville
West, Claudine.....	Butte, Mont.
Whitney, Herbert Bradley.....	Mendon
Wheadon, Lloyd Russell.....	Wasatch
Wilkinson, Frederick George.....	Logan
Williams, Ada.....	Montpelier, Idaho
Williams, Carrie Beatrice.....	Salt Lake City
Williams, Claude Stokes.....	Salt Lake City
Williams, David Adnebyth.....	Salt Lake City
Williams, Joseph, Jr.....	Morgan
Williams, William Royal.....	Salt Lake City
Wilson, Abigail.....	Brigham City
Wood, George Harmon.....	Springville
Wood, Ralph Eugene.....	Springville
Wright, Lester Thomas.....	Ogden
Wright, Robert Lee.....	Stockton, Cal.

Y

Yearian, Lillie Jane.....	Lewisville, Idaho
Yeates, Allie.....	Millville
Yeates, Sylvia Chance.....	Millville
Young, Katherine Curtis.....	Salt Lake City

The following farmers joined with other special students of the College in taking the Winter Course of Lectures in Agriculture:

Bennion, Heber.....	Taylorsville
Cookhgr, Thomas.....	Taylorsville
Hyde, William.....	Logan
Jensen, Ephraim.....	Logan
Nielson, Rasmus.....	Logan

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