

MEETING OF THE EXECUTIVE COMMITTEE, JULY 5, 1899.

A duly called meeting of the Executive Committee of the Board of Trustees of the University of Illinois was held at the Sherman House, in Chicago, Illinois, July 5, 1899.

There were present Mr. McLean and Mrs. Flower; absent, Mr. McKay.

It was ordered that Professor Tompkins be allowed \$150.00 in addition to the amount which was allowed him by the Board at its session June 27th, inasmuch as he stated that in order to serve at the Summer School "he withdrew from other engagements from which he would have realized the sum of \$1,000.00."

Professor Burrill had reported that it was necessary to procure the services of an assistant in botany and zoölogy for the Summer School, and he was given authority to obtain such assistant at a salary not to exceed \$100.00.

ALEX. MCLEAN,
President.

MEETING OF JULY 26, 1899.

The Executive Committee of the Board of Trustees of the University of Illinois met in the Trustees' Room, Library Building, Urbana, Illinois, on the forenoon of Wednesday, July 26, 1899.

All the members of the Committee were present. Vice-President Burrill was also present.

The following resolution was adopted:

Resolved, That the President and Secretary of the Board of Trustees of the University of Illinois be authorized to sign a petition to the Board of Local Improvements of the city of Champaign requesting that Wright street be paved with brick, with curbs and gutters of cement, from John street to University avenue in the said city of Champaign.

The Committee on Agriculture was authorized to make the following repairs on the south farm, and the sum of \$163.00 was appropriated therefor:

To take up and relay, setting it two feet lower in cement, 42 feet of the foundation wall of the barn, material furnished and wall laid for.....	\$75 00
To repair house drain and sink.....	10 00
To build 120 rods of wire fence at 65 cents a rod.....	78 00

The Committee was also authorized to repair the ground connection of the lightning rod at the barn, or to remove the rod.

Professor Burrill presented the following communication:

URBANA, July 26, 1899.

To the Board of Trustees of the University of Illinois:

I herewith submit revised courses of instruction in the various departments of the College of Agriculture and recommend their approval. The revision is presented as placed in my hands by the dean of the College of Agriculture. During the last year the subject has received much attention on the part of the members of the faculty of the College, and it is believed the results as submitted will meet the new and anticipated demands for instruction in these branches of education. It will be noticed that the elective offerings are very large, much exceeding in number those heretofore published by the University, and largely exceeding, it is believed, those offered by any other college or university in America. Of course this list could not be offered except with the understanding that the number of instructors employed should be as you have already arranged. With these instructors and with this liberal amount of required and elective instruction, the College must take very high rank.

Respectfully submitted,

T. J. BURRILL,
Vice-President.

COURSES OF INSTRUCTION IN AGRICULTURE.

Students desire instruction in agriculture with one of two definite objects in mind:

1. To secure a liberal education along agricultural lines through a course of study leading to graduation.
2. To take instruction in certain subjects for the sake of technical knowledge and skill without reference to graduation.

To meet the needs of both classes of students the following courses are offered. Each subject is briefly outlined to show its general character, and is followed by a notation of the length of time and of the nature of preparation necessary for its pursuit. The liberal range of subjects affords wide elective privileges to those expecting to graduate and also permits the special student to follow out his chosen subjects at considerable length. Every subject is open to any student whose preparation is sufficient to enable him to pursue the study with profit.

Subjects marked thus* require at least regular admission to the University or its equivalent; others may be taken without conditions, except such as insure that the student is able to do good work. The credits attached are for matricultural students.

AGRONOMY, FIELD AGRICULTURE.

1. **FARM MECHANICS.**—Fences, and farm buildings, their location, construction and cost; laying out and construction of drains and calculation of cost; farm machinery; kinds, efficiency, durability, draft, friction, cost, care, and management; shop practice. *First semester: two hours, daily; three-fifths study.*

Required for graduation after 1900. [Not offered in the year 1899-1900.]

2. **HISTORY OF AGRICULTURE.**—Its development and practice, especially Roman, English, and American. *Tu., Th.; first semester; two-fifths study.*

*3. **CROPS OF THE FARM.**—Economic production of the cereal, forage, and miscellaneous crops, and the care and use of pasture lands; selection and preservation of seed and the management of the special crops prominent in Illinois agriculture; destruction of weeds and prevention of insect and fungous ravages. *Second semester; full study.*

Required: Entrance to the University, or two semesters in agriculture, or its equivalent.

This or No. 4 is required for graduation.

*4. SOIL PHYSICS.—Origin and classification of soils; conditions and indications of fertility; movement of water in soils; its dependence on the mechanical condition and its influence on temperature and productivity; drainage, irrigation, and tillage to insure conditions of growth. *First semester; full study.*

Required: One year of University work.

This or No. 3 is required for graduation.

*5. ROTATION OF CROPS.—Based on the effect of fertilizer upon yield; the relation between different crops; the effect of fertilizer, crop, and system of farming upon the permanent fertility of the land and the ultimate cost of production. *Second semester; full study.*

Required: Two years of University work including Chemistry 1; Botany 1, and Soil Physics.

6. FARM MANAGEMENT.—To cover the labor of the farm, the valuation of exhausted manures; investments temporary and permanent; the rights of landlord and tenant and of successive owners of the land. Designed especially for those who expect to undertake the management of others' lands, either under employ or as tenants. *Second semester; two-fifths study.*

Required: Two years of University work, or its equivalent.

*7. COMPARATIVE AGRICULTURE.—The agriculture of different countries as influenced by climate, race, religion, tradition, etc., etc. *First semester; three-fifths study.*

Required: Two years of University work.

*8. AGRICULTURAL EXPERIMENTATION.—A study of the methods and work of the various experiment stations in this country and abroad, especially to discover agricultural problems and correct methods of investigation. Designed especially for those who desire to fit themselves as experiment station workers. *Second semester; full study.*

Required: Sufficient credits in agriculture for graduation.

*. SOIL BACTERIOLOGY.—Relation of bacteria to productive soils and to the growth of agricultural crops. *Second semester; M., W., F.; three-fifths study.*

Required: Botany 8 (Elementary Bacteriology); Agronomy, 4, 5.

[Not given in the year 1899-1900.]

10. METEOROLOGY.—General principles of meteorology with special reference to agricultural conditions. *First semester; Tu., Th.; two-fifths study.*

*11. THESIS UPON INVESTIGATION UNDER DIRECTION OF INSTRUCTOR.—*Two semesters; full study.*

Required before graduation of all students specializing in general agriculture.

ANIMAL HUSBANDRY.

1. THE BREEDS OF DOMESTIC ANIMALS.—Their history and character; pedigree registers and tracing pedigrees; location of the pure-bred breeds of the United States; recognition of pure-bred animals at sight; daily practice in judging. *First semester; full study.*

*2. STOCK JUDGING.—Critical study of beef, pork, and mutton cuts, and judging animals for meat production; study of wool and judging sheep for wool; judging for the dairy and for labor, driving and speed, critical study of breed types and of pure bred animals; live stock statistics. Lectures, reference readings, and practice in judging. *First half of second semester; full study.*

Required: Entrance to the University, or Veterinary Science 1, 2, and Animal Husbandry 1.

Required for graduation.

3. **LIVE STOCK MANAGEMENT.**—Housing and care of farm animals and their surroundings, barns, stables, yards, management of breeding animals, and training of horses for labor, driving, and saddle. Lectures and reference readings. *Second half of second semester; full study.*

*4. **STOCK FEEDING.**—Study of foods, their chemical composition, potential energy, and mechanical condition as well as their proper combination looking to the economic production of meat, milk, wool, or labor and the development of the young. *First semester; full study.*

Required: One year of Chemistry; one year of Botany or Zoölogy; one semester of Physics or Physiology.

*5. **STOCK BREEDING.**—The improvement of domestic animals through the principles of heredity, variation, and selection and the influence of environment; critical study of breeders' methods and results. *Second semester; full study.*

Required: One year of Botany or Zoölogy.

*6. **MINOR.**—The place of live stock in American affairs; the types most needed; the several characters of the principal breeds and the leading features of live stock management. Lectures, two-fifths study. Designed for University students specializing in other lines than animal husbandry.

Required: One year of University work. *Second semester; M., W., F.; three-fifths study.*

*7. **HORSES.**—Exhaustive study of breeding types, management, and market interests. Designed for special students desiring particular instruction in horses. Lectures each week, reference reading and individual study, and practice in judging. *Second semester; full study.*

*8. **CATTLE.**—Same as with horses and under same condition. *First semester; full study.*

*9. **SHEEP.**—Same as with horses and cattle. *First half of second semester.*

*10. **SWINE.**—Same as with sheep. *Second half of second semester.*

*11. **THESIS REPRESENTING INDIVIDUAL WORK OF THE STUDENT.** *One year.* Required for graduation with animal husbandry as major.

VETERINARY SCIENCE.

1. **ANATOMY.**—A thorough knowledge of the structure of the horse and other domestic animals. The instruction comprises lectures, demonstrations and dissections. The lectures include: First, a description of the locomotory apparatus, viz., the bones, articulations, and muscles; second, a minute description of the viscera; third, a detailed description of the relation of the blood vessels and nerves and of the brains and organs of the senses. The lectures are illustrated by drawings, models, and specimens from recent subjects. *First semester; three-fifths study.*

2. **PHYSIOLOGY.**—The purpose of this course is to make students thoroughly acquainted, so far as time permits, with modern physiology; its methods, its deductions, and the basis on which the latter rests. Instruction in this branch is imparted by lectures, and the more important facts are impressed by frequent examinations. *First semester; Tu., Th.; two-fifths study.*

3. **MATERIA MEDICA.**—The instruction includes therapeutics, toxicology, pharmacy, prescription-writing, etc. The lectures of this branch will be illustrated by a large collection of specimens of the various drugs, both in their crude and prepared state, as used by veterinarians, so that the student may become familiar with the mode of administering the various drugs. *Two semesters; full study.*

4. **THEORY AND PRACTICE OF VETERINARY MEDICINE AND SURGERY.**—These lectures include the whole range of general pathology of the domestic

animals. Owing to the inability of animals to describe their ailments symptomatology is very minutely considered, and physical diagnosis is made particularly prominent. Autopsies will be held on every subject, to familiarize the student with the morbid condition of disease. In addition to these, anatomical and pathological specimens, charts, diagrams, etc., will be exhibited. *Second semester; full study.*

Required: Veterinary Science, 1, 2.

*5. VETERINARY SANITARY SCIENCE.—This branch is taught by a series of lectures embracing inspection of cattle, horses, sheep, and pigs for contagious diseases; a discussion of the influence of civilization and traffic on animal plagues, their origin and nature, diffusion, reception, and mode of access; the prevention and suppression of contagious diseases. *First semester; two-fifths study.*

Required: Veterinary Science 1, 2, and Animal Husbandry 2, 4.

6. MINOR.—The outlines of veterinary anatomy, physiology, materia medica, and clinic work. *First semester; full study.*

Diseases of farm animals, materia medica and clinic work. *Second semester; full study.*

Clinic instruction is given once a week throughout the year.

DAIRY HUSBANDRY.

1. MILK.—Composition; testing for fat and total solids with the Babcock test and the lactometer; detection of adulteration; souring and means of contamination and methods of protection from impurities and infection; care of utensils, care and handling of milk and its delivery to the customer. *First semester; full study.*

2. MILK PRODUCTION.—Economical production of milk as regards sheapest and best feeds, proper care and management of the dairy herd, arrangement and care of the dairy barn. A study of variations in milk and their causes; efficiency of different cows as milk and butter producers. *First semester; full study.*

3. CREAM SEPARATION.—Efficiency of the shallow pan, deep setting, and separator systems of creaming. Care, management, and comparison of the different centrifugal separators. *Second semester; full study.*

Required: Dairy Husbandry 1.

*4. BUTTER MAKING.—Ripening of cream, the acid test; use and advantage of the different starters; effect of temperatures, acidity, and ripeness of cream upon time and completeness of churning, and quality of butter; packing, scoring, and marketing of butter. *Second semester; full study.*

Required: Dairy Husbandry 1, 2, or 4, or its equivalent.

*5. MINOR.—Testing of milk for butter fat and total solids; advantage of cleanliness in milk production; separation of cream by different methods, and the making of butter. Designed for agricultural students and others meeting entrance conditions to University. *First half of first semester; full study.*

Required for graduation.

6. CHEDDER CHEESE.—Care of milk for cheese making; the rennet test; setting, cutting, heating, milling, salting and pressing the curd, cuering, and judging for cheese. *First semester; full study.*

7. FANCY CHEESE.—Method of manufacture, care and sale of many varieties of fancy and hand cheese. *First semester; full study.*

8. PASTEURIZATION. Effect of pasteurisation on flavor and keeping quality of milk and cream and products made from these. *Second semester, two-fifths study.*

9. CREAMERY MANAGEMENT.—Planning and construction of creameries and cheese factories with reference to sanitation and economy of operation; management, coöperative and company; care of boilers and machinery. *Second semester; three-fifths study.*

Required: Two semesters of dairy work or its equivalent.

*10. DAIRY BACTERIOLOGY.—Relation of bacteria to dairying. Where and to what extent bacteria gain access to milk and how this may be avoided in actual practice. Action of bacteria on milk and its products. *Second semester; full study.*

Required: Elementary Bacteriology.

*11. THESIS UPON INVESTIGATION CONDUCTED UNDER DIRECTION OF INSTRUCTOR.—*Two semesters; full study.*

Required before graduation of all students specializing in dairy husbandry.

HORTICULTURE.

1. (a) Comprising a general consideration of the common problems of practical horticulture. Laboratory work. *Two hours; first and second semesters.*

*(b) A STUDY OF ORCHARD FRUITS AND OTHER HORTICULTURAL PLANTS.—Lectures and reference readings. For regular students in any of the colleges of the University. *Three hours; first and second semesters.*

2. ORCHARDING.—Comprising a study of orchard fruits. *Five hours; first semester.*

Required: Horticulture, 1a.

3. VITICULTURE.—A comprehensive study of grape culture. *Three hours; first semester.*

Required: Horticulture, 1a.

4. SMALL FRUIT CULTURE. *Second semester; three hours.*

Required: Horticulture, 1a.

5. VEGETABLE GARDENING.—Kitchen and market gardening, and vegetable forcing. *Five hours; second semester.*

Required: Horticulture, 1a.

*6. PLANT PROPAGATION.—Methods of securing and perpetuating desirable varieties of self and cross-fertilization, or by hybridization and selection. *Three hours; second semester.*

Required: Horticulture, 2.

[Not given in the year 1899-1900.]

*7. FORESTRY.—Embracing a study of forest trees and their natural uses, their distribution and artificial production. *Two hours; first semester.*

Required: Botany, 2.

*8. LANDSCAPE GARDENING.—Ornamental and landscape gardening with special reference to the beautifying of home surroundings. *Three hours; second semester.*

Required: Horticulture, 7.

*9. FLORICULTURE.—The study and management of conservatory and house plants. *Three hours; first and second semesters.*

Required: Botany, 2.

*10. NUT CULTURE.—The cultivation and management of nut trees for commercial purposes. *Two hours; first semester:*

Required: Horticulture, 2.

*11. PLANT HOUSES.—The construction and management of conservatories and other plant houses. *Three hours; second semester.*

Required: Horticulture, 6.

*12. ECONOMIC BOTANY.—A study of cultivated plants with special reference to their economic uses. *Five hours; first semester.*

Required: Botany, 2.

*13. EVOLUTION OF CULTIVATED PLANTS.—Comprising a study of organic evolutions and modifications of plants under the hand of man. *Five hours; first semester.*

Required: Two years of University work, or its equivalent.

*14. NURSERY METHODS AND MANAGEMENT.—Designed for those who intend to make the nursery business a life work. *Five hours; second semester.*

Required: Horticulture, 6.

*15. SPRAYING.—Materials and methods employed for the combating of insects and fungous diseases of plants. *Two hours; first and second semesters.*

Required: Horticulture 2.

*16. COMMERCIAL HORTICULTURE.—A course giving a practical training for those students intending to follow horticulture as a business. *Five hours; first and second semesters; one-half hour each.*

*17. EXPERIMENTAL HORTICULTURE.—A course for those intending to engage in professional horticulture, or experiment station work. For advanced students.

*18. SPECIAL INVESTIGATION AND THESIS WORK.—Required of candidates for graduation. *Three hours; first and second semesters.*

The Executive Committee referred this communication to the Committee on Instruction for consideration and report at the meeting of the Board to be held August 16th.

It was ordered that the Library be open during the forenoon for the remainder of the session of the Summer School.

Upon nomination of Vice-President Burrill, Mr. William J. Kennedy was appointed instructor in animal husbandry for the year beginning September 1, 1899, at a salary of \$1,000.00; Mr. J. W. Lloyd was appointed instructor in horticulture for the same term and salary, and Mr. G. M. Holferty was appointed assistant in botany for the ten months beginning September 1, 1899, at a salary of \$75.00 a month.

Upon motion of Mrs. Carriel it was voted that members of the faculty of the College of Agriculture might do such visiting and lecturing within the State as dean of the College should deem best, the purpose being to give to the citizens of the State information concerning the College. Expenses to be paid from funds assigned to the College.

The Committee adjourned.

ALEXANDER MCLEAN,
Chairman.

W. L. PILLSBURY,
Secretary.