

CORNELL UNIVERSITY

ANNOUNCEMENT

OF THE

NEW YORK STATE
VETERINARY COLLEGE

1901-1902

ITHACA, NEW YORK
PUBLISHED BY THE UNIVERSITY
MAY, 1901
BI-MONTHLY

CALENDAR OF THE NEW YORK STATE VETERINARY COLLEGE AND OF CORNELL UNIVERSITY

[The year has been divided into two terms instead of three as formerly.]

1901-1902

First Term

Sept. 17, Tuesday, University Entrance examinations begin.
Sept. 24, Tuesday, ACADEMIC YEAR BEGINS. Matriculation of new students. University scholarship examinations begin.
Sept. 25, Wednesday, MATRICULATION of new students.
Sept. 26, Thursday, REGISTRATION of Matriculated students.
Sept. 27, Friday, INSTRUCTION BEGINS in all departments of the University at Ithaca. President's annual address to the students at 12.00 M.
Oct. 14, Monday, latest date for announcing subject of Theses for D.V.M.
Nov. —, Thursday, THANKSGIVING DAY.
Dec. 21, Saturday, Christmas recess begins.
Jan. 3, Friday, work resumed.
Jan. 11, Saturday, FOUNDER'S DAY.
Jan. 31, Friday, First term closes.

Second Term

Feb. 3, Monday, REGISTRATION for second term.
Feb. 22, Saturday, WASHINGTON'S BIRTHDAY.
Mch. 28, Friday, Easter recess begins.
Apr. 8, Tuesday, Work resumed.
Apr. 14, Monday, Latest date for receiving application for Fellowships and Graduate Scholarships.
Apr. 30, Wednesday, Latest date for presenting Theses for advanced and baccalaureate degrees.
May 30, Friday, DECORATION DAY.
June 12, Thursday, Instruction ends.
June 13, Friday, Entrance examinations begin.
June 15, Sunday, Baccalaureate sermon.
June 17, Tuesday, Class Day.
June 18, Wednesday, Alumni Day and Annual Meeting of the Trustees.
June 19, Thursday, THIRTY-FOURTH ANNUAL COMMENCEMENT.

Summer Session

1901

June 26, Wednesday, Summer term (of ten weeks) in Entomology and Invertebrate Zoology, and in Paleontology and Stratigraphic Geology begins.
July 5, Friday, REGISTRATION for Summer Session (of six weeks).
July 6, Saturday, Summer Session begins.
Aug. 16, Friday, Summer Session ends.
Sept. 3, Tuesday, Summer Term in Entomology and Geology ends.

First Term, 1902-1903

Sept. 16, Tuesday, Entrance examinations begin.
Sept. 23, Tuesday, ACADEMIC YEAR BEGINS. MATRICULATION of new students. University Scholarship examinations begin.
Sept. 24, Wednesday, MATRICULATION of new students.
Sept. 25, Thursday, REGISTRATION of matriculated students.
Sept. 26, Friday, INSTRUCTION BEGINS in all departments of the University at Ithaca. President's annual address to the students at 12.00 M.

Tuition Fees, Etc.

On account of the above changes all fees, including tuition, laboratory, etc., will be payable at the beginning of each term.



NEW YORK STATE VETERINARY COLLEGE—MAIN BUILDING

ANNOUNCEMENT

1901-1902

The New York State Veterinary College



"THERE IS HEREBY ESTABLISHED
A STATE VETERINARY COLLEGE
AT CORNELL UNIVERSITY"

Laws of New York, 1894, p. 307.

ITHACA, NEW YORK

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OFFICERS OF ADMINISTRATION
OF THE
NEW YORK STATE VETERINARY COLLEGE

The Board of Trustees of Cornell University, in which are included the following State Officers : His Excellency the Governor, His Honor, the Lieutenant-Governor, the Speaker of the Assembly, the Superintendent of Public Instruction ; also the President of the State Agricultural Society, and the Commissioner of Agriculture.

VETERINARY COLLEGE COUNCIL

The President of Cornell University, JACOB GOULD SCHURMAN.

The Director of the Veterinary College, Professor JAMES LAW.

From the Board of Trustees, MYNDERSE VAN CLEEF.

The Treasurer of Cornell University, EMMONS L. WILLIAMS.

Professor SIMON H. GAGE.

Professor VERANUS A. MOORE.

CHARLES EZRA CORNELL, Secretary of the Council.

FACULTY OF THE

NEW YORK STATE VETERINARY COLLEGE

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., *President.*

JAMES LAW, F.R.C.V.S., *Professor of Principles and Practice of Veterinary Medicine, Veterinary Sanitary Science and Parasitism.*

SIMON HENRY GAGE, B.S., *Professor of Microscopy, Histology and Embryology.*

VERANUS ALVA MOORE, B.S., M.D., *Professor of Comparative Pathology and Bacteriology, and of Meat Inspection.*

WALTER L. WILLIAMS, V.S., *Professor of Principles and Practice of Veterinary Surgery, Obstetrics, Zoötechny, and Jurisprudence.*

PIERRE AUGUSTINE FISH, D.Sc., D.V.M., *Assistant Professor of Comparative Physiology, Pharmacology, and Therapeutics.*

GRANT SHERMAN HOPKINS, D.Sc., D.V.M., *Assistant Professor of Veterinary Anatomy and Anatomical Methods.*

RAYMOND CLINTON REED, Ph.B., *Instructor in Comparative Pathology and Bacteriology.*

GARRY TERRILL STONE, D.V.M., *Assistant in Clinical Surgery.*

CLARENCE LYON BARNES, D.V.M., *Demonstrator in Anatomy.*

CLARENCE EARL SHAW, *Demonstrator in Anatomy.*

DENNIE HAMMOND UDALL, B.S.A., *Demonstrator in Anatomy.*

CHARLES EZRA CORNELL, A.B., LL.B., *Librarian of the Roswell P. Flower Library, and Clerk of the College.*

PROFESSORS AND TEACHERS IN CORNELL UNIVERSITY
WHO FURNISH INSTRUCTION TO VETERINARY STUDENTS

GEORGE CHAPMAN CALDWELL, B.S., PH.D., *Professor of Agricultural and Analytical Chemistry.*

ISAAC PHILLIPS ROBERTS, M.AGR., *Professor of Agriculture.*

JOSEPH ELLIS TREVOR, PH.D., *Professor of General Chemistry and Physical Chemistry.*

HENRY HIRAM WING, M.S., *Assistant Professor of Animal Industry and Dairy Husbandry.*

BENJAMIN FREEMAN KINGSBURY, A.B., M.S., PH.D., *Assistant Professor in Microscopy, Histology and Embryology.* (Absent on leave 1901-1902.)

FLOYD ROBBINS WRIGHT, A.B., *Instructor in Bacteriology.*

EMIL MONIN CHAMOT, B.S., PH.D. *Instructor in Analytical and Sanitary Chemistry and Toxicology.*

SAMUEL HOWARD BURNETT, A.B., M.S., *Assistant in Pathology.*

MARY JANE ROSS, A.M., *Assistant in Microscopy, Histology and Embryology.*

CHARLES HERBERT BOXMEYER, A.B., *Assistant in Microscopy, Histology and Embryology.*

ALICE ELMINA GATES BUGBEE, *Assistant in Physiology.*

CARL WALLACE FISHER, V.S., *Assistant in Physiology.*

WALTER WELLS HOOVER, *Assistant in Physiology and Materia Medica.*

VETERINARY COLLEGE DIRECTORY

The President of the University, JACOB GOULD SCHURMAN, 2 Morrill Hall.

The Dean of the Veterinary College, Professor JAMES LAW, Room 2, s. e. corner, 1st floor of the Veterinary College.

Professor WALTER L. WILLIAMS, Room 3, n. w. corner, 1st floor.

Professor PIERRE A. FISH, Room 11, n. w. corner, 2d floor.

Professor GRANT S. HOPKINS, Room 12, n. e. corner, 2d floor.

Professor VERANUS A. MOORE, Room 13, s. w. corner, 3d floor.

Professor SIMON H. GAGE, Room 14, s. e. corner, 3d floor.

Instructor RAYMOND C. REED, Room 17, n. w. corner, 3d floor.

Veterinary College Clerk, CHARLES EZRA CORNELL, Room 1, s. w. corner, 1st floor.

The Stud Groom, ALBERT F. SCHABER, Cottage east of Main Building (see plan, p. 7).

FOUNDATION

The New York State Veterinary College was established by act of the State Legislature in 1894. "There is hereby established a State Veterinary College at Cornell University," Laws of New York, 1894, p. 307. By action of the Board of Trustees of Cornell University, June 10, 1894, the location of the College upon the University Campus was authorized. It was further enacted that while the University does not undertake any financial responsibility for the buildings, equipment or maintenance of the College, it does consent to furnish instruction upon such subjects as are or shall be in its curriculum upon such terms as may be deemed equitable.

By further acts of the Legislature provisions for the buildings, equipment and maintenance of the College were made, and finally in 1897, by "An act to provide for the administration of the State Veterinary College, established by chapter 153 of the laws of 1894," it was enacted that the Trustees of Cornell University should be entrusted with the administration. (For officers of administration, see p. 3).

OBJECTS OF THE INSTITUTION

As stated in the act to provide for the administration of the State Veterinary College: "*The State Veterinary College, established by chapter 153 of the laws of 1894, shall be known as the New York State Veterinary College. The object of the said veterinary college shall be: to conduct investigations as to the nature, prevention and cure of all diseases of animals, including such as are communicable to man and such as cause epizootics among live stock; to investigate the economical questions which will contribute to the more profitable breeding, rearing and utilization of animals; to produce reliable, standard preparations of toxins, antitoxins and other products to be used in the diagnosis, prevention and cure of diseases and in the conducting of sanitary work by approved modern methods; and to give instruction in the normal structure and function of the animal body, in the pathology, prevention and treatment of animal diseases, and in all matters pertaining to sanitary science as applied to live stock and correlatively to the human family.*"

The New York State Veterinary College was therefore founded to raise the standard of veterinary investigation and instruction to the level of the most recent advances in biology and medicine. The number of farm animals in the State (9,450,000), and their value (\$131,200,000), with a yearly product, in milk alone, of over 5,000,000,000 gallons, give some idea of the great interest at stake in the matter of live stock. For the United States* a value in live stock of, approximately, \$2,000,000,000, and a yearly sale, in Chicago alone, of \$250,000,000 worth, bespeak the need of all that learning and skill can do for the fostering of this great industry. Another consideration is that the normal permanent fertilization of the soil is dependent upon the live stock kept, and that where there is a deficiency of animals, the productiveness of the land is steadily exhausted ; so that the health and improvement of animals and the fostering of animal industry, lie at the very foundation of our national wealth. Another, and no less potent argument, for the highest standard of veterinary education, is its influence on the health of the human race. With a long list of communicable diseases, which are common to man and beast, and with the most fatal of all human maladies—tuberculosis—also the most prevalent affection in our farm herds in many districts, it is to the last degree important that measures for the extinction of such contagion in our live stock should receive the best attention of the most highly trained experts.

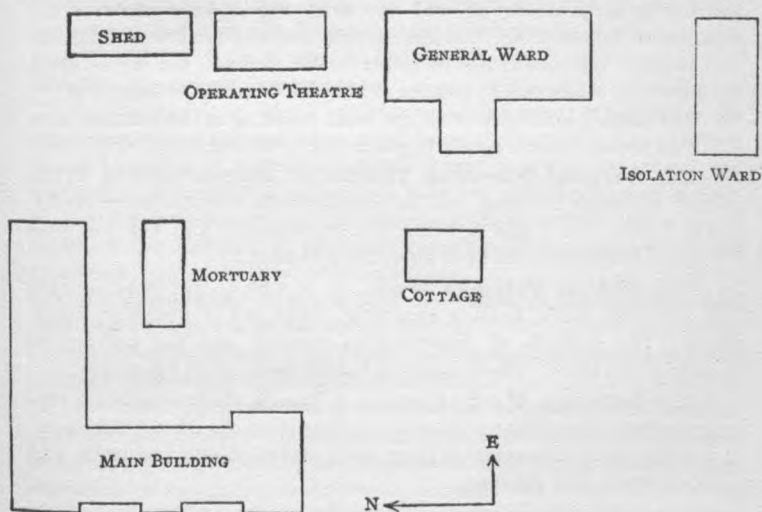
To justify the liberality of the State in creating this seat of learning, it will be the aim of the college to thoroughly train a class of veterinarians for dealing with all diseases and defects that depreciate the value of our live stock, and with the causes which give rise to them ; to recognize and suppress animal plagues, which rob the stock owner of his profits, and cause widespread ruin ; to protect our flocks and herds against pestilences of foreign origin, and to protect human health and life against diseases of animal origin. It will further aim, so far as it has the means and opportunity, at establishing a centre of investigation, looking towards such improvements in the breeding, care and management of animals as may enhance their market value and make returns more speedy and profitable ; towards discoveries in therapeutics, and the immunization of animals and men from contagion ; and towards the production of organic compounds to be employed in diagnosis, treatment and immunizing. So much has been recently discovered in these directions, and present knowledge points

*The figures for the twelfth census are not yet available. No doubt the old numbers given above are considerably too small.

so unmistakably to coming discovery, that to neglect this field at the present time would be decidedly reprehensible. Apart from discovery, the mere production of reliable articles of these organic products which are coming into increasing demand by the State and private practitioner, for prevention, diagnosis and treatment, is an object not to be lightly set aside. The combination in one institution of educational facilities with scientific investigation, and the production of the organic extracts to be employed in modern medical methods, is a feature calculated to insure the best work in all departments, and the most exceptional advantages for the diligent student.

LOCATION AND BUILDINGS

The New York State Veterinary College is located at Ithaca, on the campus of Cornell University, fronting on East Avenue, and facing the University buildings. Electric cars on East avenue convey students and visitors to any part of the city. Ithaca, with its population of 12,000 is situated at the head of Cayuga Lake, 262 miles distant from New York City, and on the lines of the Delaware,



Lackawanna and Western, and the Lehigh Valley railroads. The University grounds are half a mile from the business center of the city and 400 feet higher, commanding a view of 20 miles of valley and lake. They comprise 270 acres, of which 125 are used by the

department of agriculture, and furnish home facilities for clinics and zootechnics. On the campus of 80 acres are 38 professors' houses, 5 fraternity houses, and over 30 University and College buildings.

The buildings for the State Veterinary College are seven in number, as follows :

The Main Building.* 142 feet by 42 feet and three stories high, overlooks East Avenue and an intervening park of 220 feet by 300 feet. The walls are of dull, yellowish buff, pressed brick, on a base of Gouverneur marble ; window and door facings of Indiana limestone, and terra cotta ornamentation. On the first floor are the museum and rooms of the director (Dr. Law), the professor of surgery and obstetrics, and the business office. The second floor is devoted to the upper part of the museum, a lecture room, a temporary laboratory of Physiology and Pharmacology, reading room, library and rooms of professors. The third floor is devoted to the laboratories of pathology and bacteriology and of microscopy, histology and embryology.

Connected with the main building and forming its EAST WING is a structure of 90 feet by 40, and one story high. This contains the anatomical laboratories, and the lecture room of anatomy, medicine and surgery. Its floors are of impermeable cement, the walls lined by enameled white brick, and the ceilings covered with sheet steel.

The second extension from the main building is the BOILER AND ENGINE ROOM, where power is generated for heating and ventilation.

The Surgical Operating Theatre is a separate building in the rear of the main building, and is furnished with room for instruments, water, heater, etc. The lighting and equipments, and the facilities for demonstration, have been specially attended to.

The General Patient's Ward, 100 feet by 31, is furnished with box and other stalls, heating apparatus, baths and all necessary appliances. The floor is of impermeable cement, and the ceilings of painted sheet steel. There is also a fodder room of 20 by 30 feet.

The Isolation Ward 54 feet by 15, has its stalls absolutely separated from one another and each opening from its own outer door, It has the usual impermeable floor, with walls of vitrified brick and painted sheet steel ceilings.

*The third floor of this building was partly destroyed by fire in November, 1900, but is now in process of reconstruction. Several important changes will be made in the building which will better adapt it to the purposes for which it will be used. All reconstruction and changes will be complete before the opening in September.

The Mortuary Building has an impermeable floor, walls of enameled brick and painted steel plate ceilings, and is fitted with every convenience for conducting post mortem examinations and preparing pathological specimens.

The Shed 51 by 20 feet, next the operating theatre is devoted to clinical uses.

These, with a cottage for the stud groom, complete the list of State buildings erected for the Veterinary College. The equipment has been made very complete both for educational uses and original research.

For a more detailed account of the equipment and the facilities for instruction see "Departments, methods and facilities," pp. 15-32.

ADMISSION TO THE NEW YORK STATE VETERINARY COLLEGE

Admission on Certificate.—For admission the candidate must possess at least the preliminary education required by the laws of New York (Laws of 1895, Ch. 860). As evidence that the requirements have been fulfilled, the Regents issue "Veterinary Student certificates," and one of these must be obtained by the candidate and filed with the Director of the college.

Briefly stated, the legal, preliminary, educational requirement for admission is that the candidate must have satisfactorily completed a course requiring at least 48 academic Regent's counts in a registered academy or high school, or he must have had a preliminary education considered and accepted by the regents as fully equivalent. [By a ruling of the Regents, 24 academic counts will be accepted for the certificate during the years 1899 and 1901.]

The Regents will accept as fully equivalent to the required academic course any one of the following :

1. A baccalaureate degree from the academic department of any college or university of recognized standing.
2. A certificate of having successfully completed at least one full year's course of study in the collegiate department of any college or university, registered by the Regents as maintaining a satisfactory standard.
3. A certificate of having passed in a registered institution examinations equivalent to the full collegiate course of the freshman year or to a completed academic course.
4. Regents' pass cards for any 48 academic counts or any regents' diploma.

5. Certificate of graduation from any registered gymnasium in Germany, Austria, or Russia.

6. A certificate of the successful completion in Italy of a course of five years in a registered *ginnasio* and three years in a *liceo*.

7. The bachelor's degree in arts or science, or substantial equivalents from any registered institution in France or Spain.

8. Any credential from a registered institution, or from the government in any state or country which represents the completion of a course of study equivalent to graduation from a registered New York high school or academy or from a registered Prussian gymnasium.

(For full information concerning the education necessary to obtain the "Veterinary Student Certificate" or for the acceptance as equivalents of work done in the academies or high schools of this or of other states, not under the Regents, address : Examination Department, University of the State of New York, Albany, N. Y.)

Admission on Examination.—For the present, students with a "Regents Veterinary Student Certificate" will be admitted without further examination. For those not possessing such a certificate, admission may be granted to students who pass Cornell University entrance examinations as follows :

The following, representing an equivalent of 24 regents' counts, must be passed by every one trying the examination : (The number of counts each subject represents is given in parenthesis).

English (8). Physiology and Hygiene (2). American History and Civics (2). Plane Geometry (4). Algebra (4). Elementary French or German (4).

For an equivalent of the remaining 24 regents' counts the applicant may elect a sufficient number from any combination of the following :

Elementary French (4). Elementary German (4). Advanced French (6). Advanced German (6). Entrance Greek (11). Latin, Cæsar and Grammar (8). Latin, Vergil, Cicero and Composition (7). Physics (4). Chemistry (4). Botany (4). Geology (4). Zoology (4).

For definite information concerning what will be required in each subject, consult the Cornell University Register for 1900-1901, pp. 33-49. (The Register will be sent on application, see inside of the cover at the end of this announcement).

Admission to Advanced Standing.—Applicants for admission to advanced standing as members of the 2d or 3d year class must present the necessary educational qualifications for admission to the first year class (see p. 9), and must pass a satisfactory examination in all the work gone over, or offer satisfactory certificates of the completion

of such work in other schools whose entrance requirements and courses of study are equivalent to those of this college. No person will be admitted to any advanced class except at the beginning of the college year in September.

Applicants for advanced standing from other colleges must send or present letters of honorable dismissal, and furnish the Director, James Law, with a catalog containing the courses of instruction in the institution from which they come with a duly certified statement of the studies pursued and their proficiency therein, and also a statement of the entrance requirements with the rank gained. To avoid delay these credentials should be forwarded at an early date in order that the status of applicants may be determined and information furnished concerning the class to which they are likely to be admitted.

Graduates of veterinary colleges whose requirements for graduation are not equal to those of the New York State Veterinary College may be admitted provisionally upon such terms as the faculty may deem equitable in each case, regard being had to the applicant's previous course of study and attainments. In this connection, attention is called to the legal requirements of academic and professional education for the practice of Veterinary Medicine in the State of New York. (See pp. 9-11, and Appendix B).

Admission to Advanced and Special Work.—The ample facilities for advanced and special work in the New York State Veterinary College, with allied departments in Cornell University, are open to graduates of this institution and of other Colleges whose entrance requirements and undergraduate courses are equivalent. (See pp. 9-12). For a short course for Veterinarians see p. 37.

RESIDENCE AND REGISTRATION

College Year.—This is nine months long, extending from the last of September until about the 20th of June, and is divided into two nearly equal terms. (For exact dates, see the calendar on the 2d page of the cover).

Residence in Ithaca is required of all students. For leave of absence during the session, application should be made to the Director, Professor Law.

Registration.—At the beginning of each term (see calendar for exact day and date) the student must register with the University Registrar, Room 9 A, Morrill Hall. After registering with the University Registrar, he must register *the same day* with the Secretary of the Veterinary Faculty, Dr. Fish, Room 11, 2d floor, of the Veterinary College.

REQUIREMENTS FOR GRADUATION

In order to receive the degree of Doctor of Veterinary Medicine (D.V.M.) the candidate must satisfy all the entrance requirements (pp. 9 and 10) and successfully pursue the courses named in the schedule of studies given below.

The thesis required in the last year (see schedule) is designed to give the student opportunity to investigate some subject in which he has become particularly interested, and to give him training in presenting the results of the investigation in proper literary form.

Final Examinations.—During the last two weeks of the second term there will be given to all candidates for a degree, final examinations in the following subjects: Anatomy; Histology and Embryology; Comparative Physiology and Materia Medica; Medicine and Zymotic Diseases; Surgery and Obstetrics; Comparative Pathology and Bacteriology.

**SCHEDULE OF COURSES LEADING TO THE DEGREE
OF VETERINARY MEDICINE (D.V.M.)**

To complete this schedule requires 125½ University hours or counts. The actual hours that the student is required to be present at lectures, recitations and in laboratory or clinical work during the entire course of three years is 3529.

FIRST YEAR**First Term**

(Course 1, a, b, c, in Chemistry) **Inorganic Chemistry** (6 Counts).

1 Lecture weekly throughout the year.....	Total	34
1 Recitation.....		34
2½ Hours of laboratory work.....		85

(Course 10) **Anatomy** (12 Counts)

2 Lectures weekly throughout the year.....	Total	68
10 Hours laboratory work (dissection, etc.).....		340

(Course 1) **Microscopy, Histology and Embryology** (8 Counts).

2 Lectures weekly.....	20
(September 27 to December 7).	
2 Recitations weekly.....	20
(September 27 to December 7).	
12 Hours of laboratory work.....	120
(September 27 to December 7).	

(Course 20) **Comparative Physiology**
(1 Count).

1 Lecture weekly.....	Total	17
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Second Term

2 Lectures weekly.....	10
(May 4 to June 7).	
2 Recitations weekly.....	10
(May 4 to June 7).	
12 Hours of Laboratory work.....	60
(May 4 to June 7).	

(Course 20, 20b.) **Comparative Physiology**
(2 Counts).

1 Lecture weekly.....	Total	17
1 Recitation weekly.....		17

SCHEDULE OF STUDIES

13

(Department Agriculture) **Breeds and Breeding** (4 Counts).

2 Lectures weekly throughout the year ----- Total 68

(Course 26) **Materia Medica and Pharmacy** (2 Counts).

5 Hours of laboratory work weekly
(Jan. 3 to March 27) ----- 60

(Course 23) **Urine Analysis**
(1 Count).

5 Hours laboratory work weekly- 45
(April 8 to June 12)

SECOND YEAR

First Term

(Course 11) **Anatomy** (10 Counts).

1 Lecture per week ----- Total 17
20 Hours in dissection ----- 340

(Course 21, 21b, 22.) **Comparative Physiology** (4 Counts).

1 Lecture per week ----- Total 17
1 Recitation per week ----- Total 17
5 Hours laboratory ----- 60
(Laboratory Sept. 27-Dec. 20).

Second Term

(Course 25) **Pharmacology**
(2 Counts).

2 Lectures weekly ----- Total 34

(Course 50) **Medicine** (6 Counts.)

3 Lectures per week throughout the year ----- Total 102

(Course 51 or 52) **Sanitary Science or Parasitism** (4 Counts).

2 Lectures throughout the year ----- Total 68

(Course 30) **General Surgery** (1½ Counts).

2 Lectures per week ----- Total 24
(Sept. 27-Dec 20).

(Course 36) **Obstetrics and Zootechnics**
(4 Counts).

4 Lectures weekly ----- Total 68

(Course 31) **Surgical Exercises**
(¾ Count).

3 Hours weekly ----- Total 36
(Sept. 27-Dec. 20).

(Courses 34 and 53) **Medical and Surgical Clinics** (6 Counts).

12 Hours weekly ----- Total 204

(Course 40) **General Pathology and Pathological Histology** (4 Counts).

2 Recitations weekly ----- Total 34
6 Hours laboratory work per
week ----- 102

(Course 43) **Bacteriology** (6 Counts).

2 Lectures per week ----- Total 34
10 Hours laboratory work per
week ----- 170

THIRD YEAR

First Term

(Course 50) **Medicine** (6 Counts).

3 Lectures per week throughout the year ----- Total 102

(Course 52 or 51) **Parasitism or Sanitary Science** (4 Counts).

2 Lectures weekly throughout the year ----- Total 68

(Course 32) **Surgery—Head, etc.**
(2 Counts).

2 Lectures weekly ----- Total 34

Second Term

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(Course 31) Surgical Exercises ($\frac{2}{3}$ Count).	
3 Hours weekly	Total 36
(Sept. 27 to Dec. 20).	
(Courses 34 and 53) Medical and Surgical Clinics (12 Counts).	
12 Hours per week throughout the year	Total 408
(Course 35) Jurisprudence ($\frac{1}{2}$ Count).	(Course 67, Chemistry) Toxicology ($1\frac{1}{2}$ Counts).
2 Lectures per week	Total 8
(During the month of January).	
(Course 27) Therapeutics (1 Count).	(Course 33) Surgery—Limbs, etc. (5 Counts).
1 Lecture weekly	Total 17
4 Lectures and recitations weekly 68	
(Course 41) Pathology of Infectious Diseases and Meat Inspection (4 Counts).	
2 Lectures weekly	Total 34
6 Hours laboratory work per week	102
Research and Thesis (6 Counts).	
7½ Hours laboratory, clinical or other research work weekly throughout the year	Total 255

DEPARTMENTS, METHODS AND FACILITIES

In addition to the departments of the Veterinary College proper, the resources of the entire University are practically at the disposal of the college by the action of the board of trustees at the time when authorization was given for its location on the campus of the Cornell University (p. 5, under foundation). Among the facilities of the university of especial value to the Veterinary College may be mentioned the museums of Vertebrate and Invertebrate Zoölogy including Entomology, of Agriculture, of Botany and of Geology. The University Library, with its 250,000 bound volumes, 40,000 pamphlets and 600 current periodicals and transactions, is likewise as freely open to veterinary college students as to other university students (see also Flower Library).

The Departments, with their special equipments, facilities and methods, are given approximately in the order in which the subjects are pursued in the course.

The Courses Required for Graduation are given in the schedule of studies, pp. 12-14, but the additional courses offered by the various departments are thought to be of especial value to veterinary students and may be elected by them whenever they have satisfied the requirements.

CHEMISTRY

The instruction in chemistry is given in the university chemical building, Morse Hall. This building is used solely for chemistry and is fully equipped with modern apparatus and material. The laboratories furnish the most ample accommodation for practical work, and the lectures are fully illustrated by specimens, demonstrations and lantern views. The chemical library, in the building and accessible to students, contains complete sets of all important journals, and is very fully supplied with works of reference and standard books on chemistry and allied subjects.

For a full account of the department with its 40 or more courses, one may consult the University Register or the special announcement of the chemical department (see 3d page of cover.)

Courses

These are the courses pursued by veterinary students and must be taken in the order here indicated.

1. **Elementary, General Inorganic Chemistry.**—This consists of one lecture (T. or Th. 12), one recitation and 2½ hours of laboratory work weekly throughout the year. Professors CALDWELL and TREVOR and Instructor ———
67. **Toxicology**, qualitative and quantitative. 2 Lectures weekly, Feb. 5 to May 5. M., W., 9. *Ch. L. R.*, 2. DR. CHAMOT.

MICROSCOPY, HISTOLOGY AND EMBRYOLOGY

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories in photo-micrography, in vertebrate histology, vertebrate embryology and in histologic and embryologic technic; and opportunities for research in all of these subjects. For all of these courses the college is well supplied with the best modern apparatus.

The rooms for the use of this department are on the third floor, and are ample and almost perfectly lighted. They consist of a large general laboratory, a research laboratory and the private laboratories of the professors in charge, where also special demonstrations of difficult subjects are given to small groups of students.

The aim of the department is to bring the student into direct contact with the truths of nature, and hence, while there are lectures to give broad and general views, there is a large amount of laboratory work in which the facts are learned at first hand, and the methods and manipulations necessary for acquiring the facts are practised by each student. It is recognized that less ground can be covered in a given time in this way, but it is believed, and experience has confirmed the belief, that the intellectual independence and the power to acquire knowledge direct from nature which is gained by this personal work, is of far higher value than the facts and theories that might be learned in the same time from books and lectures alone, or from specimens prepared by some other individual.

Courses

- I. **Microscopy, Histology and Embryology.** 2 lectures, M., W., at 8; 2 recitations, Th., Sat., 10, and 12 hours of laboratory work weekly till December 7 and from May 4 to June 7. Professor GAGE, Assistant Professor KINGSBURY and Assistants ROSS and BOXMEYER.

Microscopy.—The aim is to give a working knowledge of the theory and use of the microscope and its accessories, methods of mounting microscopical specimens, etc. It serves as a basis for all the subsequent work of the department. The work begins September 27 and extends until October 12.

Histology.—This includes the study of the fine anatomy of the domestic animals and of man, and also the fundamental methods of histologic investigation and demonstration. The work begins October 12 and extends until December 7.

Embryology.—This deals with the elements and methods of embryology in the amphibia, in the domestic animals, especially the chick and the pig, and in man. It begins May 4 and extends until June 7.

4. **Research in Histology and Embryology.**—Laboratory work 8 or more hours per week with Seminary throughout the year. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake special investigations in histology and embryology. Professor GAGE and Assistant Professor KINGSBURY.

Course 4 is open only to those who have taken course 1, or its equivalent in some other University. Drawing, (course 9, in Mechanical Engineering, or its equivalent) and a reading knowledge of French and German are indispensable for the most successful work in this course.

Subjects for theses should be decided upon as early as possible so that material in suitable stages of development and physiologic activity may be prepared.

5. **Structure and Physiology of the Cell.**—First term. 2 lectures per week (34 lectures in all) at hours to be arranged. This course is designed for students of biology and medicine, and gives the fundamental facts and principles relating to cell structure and activity, especially in their bearing on general problems of biology and theories of evolution and heredity. Open to students who have had satisfactory courses in zoology, botany or physiology, or course 1. Assistant Professor KINGSBURY. This course will be omitted in 1901-2 in the absence of Dr. KINGSBURY.

6. **Microscopy, Advanced.** Second term. $2\frac{1}{2}$ hours per week. This course consists of laboratory work with occasional lec-

tures and demonstrations. Special instruction will be given in the theory and manipulation of the more important and difficult accessories of the microscope, *e. g.*, the micro-spectroscope, the micro-polariscope and the apertometer. The use and application of the projection microscope and of photomicrographic apparatus will be learned by each student, in abundant practical experiments. Professor GAGE.

This course is open to those having pursued course I, and who have in addition a knowledge of elementary photography Course 9, department of Physics, is recommended.

7. **Seminary.** One lecture or seminary each week at an hour to be arranged. At the seminary, there will be presented reports of special methods and the results of advanced work. Professor GAGE and assistants.

ANATOMY

The instruction in anatomy is by lectures, recitations and laboratory work, the latter being by far the most important. The objects of the lectures are to present facts of general morphology as related to the horse and other domestic animals; to direct attention, as far as possible, to the correlation of structure and function of the various organs of the body and to emphasize the anatomical relations of those parts most subject to surgical operations. The main reliance, however, is placed upon the work done in the laboratory. Thorough practical knowledge of anatomy can be acquired in no other way, and every student will be required to dissect all the parts of the horse, or ox, and such other of the domestic animals as may prove most expedient, before taking his final examinations.

The courses in anatomy extend through two years. The first year is devoted to the study of bones, joints, muscles and certain of the viscera; the second year, to the vascular and nervous systems and the organs of special sense.

In the study of the osseous and muscular systems, the skeletons in the laboratory, and the Auzoux models afford valuable assistance. In the museum there are accumulating series of specimens which illustrate, in a typical manner, some of the more important anatomical features of the various domestic animals.

The ventilation of the laboratory is nearly perfect, fresh air being forced into the room by large fans situated in the basement. The entire volume of air in the laboratory can be changed every 5 minutes without creating any perceptible draft. This constant supply of an

abundance of pure air is an especially important feature in a dissecting room.

The city and surrounding country furnish any quantity of anatomical material, and in almost endless variety ; horse, ox, sheep and swine, dog, cat, rabbit and guinea-pig, both adult and in all stages of fetal development.

Courses

10. **General and Descriptive Veterinary Anatomy.**—Through the year. Two lectures, T., Th., 9; minimum number of hours per week of laboratory work, 10. W., Th., F., P. M.; S., A. M. From Sept. 27 to Dec. 7 there will be but two periods of laboratory work, Th., F., P. M. From Dec. 7 to May 4 there will be five periods, M., W., S., A. M., Th., F., P. M. From May 4 to June 7, but two periods, Th., F., P. M. Dr. HOPKINS and Demonstrators.
11. **Descriptive Veterinary Anatomy.**—First Term. One lecture, F., 9. Laboratory work 20 hours, or more, per week. M., T., Th., F., P. M.; S., A. M.; DR. HOPKINS and Demonstrators.
This course must be preceded by course I.
12. **Research and Thesis or Special Regional Anatomy.**—7½ hours weekly of laboratory and other research work. Throughout the year. Dr. HOPKINS.

COMPARATIVE PHYSIOLOGY

It is the aim of this department to select from a wide field of interesting topics, those which will be of greatest use to the student, in preparation for a more complete understanding of *normal* functions, as distinguished from the pathological changes so frequently encountered in the practice of human and veterinary medicine.

The fact that it is essential to know the natural before undertaking the diagnosis of unnatural conditions is thoroughly emphasized.

The lectures are fully supplemented by the use of lantern slides, charts, blackboard diagrams, preparations and experiments.

In addition to the class-room instruction a course in the laboratory is provided, which is intended to supplement and extend the lecture courses. Every encouragement is offered, to those properly fitted, to pursue their work beyond that given in the regular course. As a part of the equipment may be mentioned kymographs, sphygmographs, induction coils and various batteries, centrifuges and apparatus for urine analysis.

To those intending to be teachers, as well as those contemplating the study of human or veterinary medicine, the course will be especially useful as it deals with experiments on the functional changes going on in the human and animal body, the exposition of which is none the less important because, in many cases, of an elementary nature.

F. Smith's Manual of Veterinary Physiology is used in the recitations.

Courses

20. **The Digestive Functions, Circulation, Respiration and Excretion.**—The work given in this course precedes quite logically that of Pharmacology and Therapeutics. First term, 1 lecture per week, through the year. F, 10. Dr. FISH.
- 20b. Recitations, one hour per week, second half-year. W. 10. Dr. FISH.
21. **The Functions of the Muscular and Nervous Systems, and Sense Organs** are considered in this course, which is a direct continuation of course 20. First term. One lecture per week. W. 10. Dr. FISH.
- 21b. Recitations, one hour each week first half-year. Th. 9. Dr. FISH.
22. **Practical Work in the Laboratory.** A small proportion of the work is devoted to the digestive system. Artificial digestive juices are tested upon the various kinds of food by the student and careful notes kept of the various changes. Those who can devote more than the required time are taught how to make the various digestive extracts. A larger proportion of the work is devoted to a study of the phenomena associated with the circulatory, respiratory, muscular and nervous systems. Students are to obtain and preserve graphic records of these phenomena, wherever possible. Certain experiments requiring special apparatus and care are performed by the instructors as demonstrations, students assisting when possible. Five hours each week from September 27 to December 20. W., 2-5, Th., 10-12. Dr. FISH and Assistants CLAYPOLE, FISHER and HOOVER.
23. **Course in Urine Analysis.**—Laboratory work devoted to the comparative study of urine. Examinations are made of human urine and that of the domestic animals, especially the horse.

In addition to the chemical examination considerable time will be devoted to a microscopic study of urinary deposits. So far as possible each student is expected to prepare and preserve a series of "typical slides." Five hours each week from April 8 to June 12. M. 2-5, T. 10-12. Dr. FISH.

24. **Research and Thesis.**—7½ hours per week throughout the year. Dr. FISH.

PHARMACOLOGY

The term is employed in its comprehensive meaning to include not only the materials of medicine, but their preparation, use and physiological action. Allowing for certain exceptional differences, there is, in general, a resemblance in the action of drugs in the lower animals and in human beings.

The clinics furnish abundant material for the use of medicines and the study of their actions.

The physiological changes in certain tissues resulting from the toxic doses of many drugs is as yet unknown, and opportunities for research are abundant in this field.

Courses

25. **Materials of Medicine.**—A study of the uses and actions of the various drugs and their preparation. A varied collection of the crude drugs and their official preparations is available and examined at the lectures. The course is conducted in the form of lectures with weekly examinations. Second term. M., Th. 10. Dr. FISH.

26. **Materia Medica and Pharmacy.**—The work in this course is divided into three parts. One month is devoted to the study of a selected group of the inorganic drugs; the second month to the study of certain of the organic drugs and their official preparations; the third month to making pharmaceutical preparations, such as syrups, emulsions, spirits, liniments, tinctures, fluid extracts, extracts, ointments, pills and others.

In their study, the students are required to write concise notes of the physiological action of the drugs examined. In addition to this each student will have practical experience in writing and compounding prescriptions. The importance of a discriminating and accurate system for dispensing medicines is kept well in mind. Five hours each week from Jan. 3 to March 28. M. 2-5, T. 10-12.

- 27. Therapeutics.**—The treatment and cure of diseases. This subject, standing along with pathology, unites physiology, anatomy, chemistry and botany with medicine and surgery. It is therefore desirable to have some knowledge of these branches in order to obtain a full appreciation of the means employed in the restoration of health.

This course must be preceded by the first and second years course, in pharmacology and physiology, or their equivalents. First term, one lecture each week. M. 10. DR. FISH.

- 28. Research and Thesis.**—7½ hours weekly throughout the year. DR. FISH.

THE COLLEGE OF AGRICULTURE—BREEDS AND BREEDING

The College of Agriculture comprises the divisions of General Agriculture; Animal Industry and Dairy Husbandry; Horticulture and Pomology; Agricultural Chemistry; General and Economic Entomology and the Agricultural Experiment Station.

The University grounds consist of 270 acres of land, bounded on the north and south by Fall Creek ravine and Cascadilla gorge respectively. One hundred and twenty-five acres of arable land are devoted to the use of the Agricultural Department. This part of the domain is managed with a view not only to profit, but also to illustrate the best methods of general agriculture. A four years' rotation is practised on the principal fields; one year of clover, one of corn, one of oats or barley, and one of wheat. A dairy of twenty cows, a flock of sheep, some fifteen horses and colts, and other livestock are kept upon the farm. Nearly all of these animals are grades, bred and reared with the single view of giving object lessons which can be practised with profit by the students on their return to their homes. A four story barn provides for housing all the animals, machinery, tools, hay, grain, and manures. The stationary thresher, feed-cutter, chaffer, and other machinery are driven by steam power. The barn also furnishes many facilities for carrying on investigations in feeding and rearing all classes of domestic animals.

The barn is also furnished with a well equipped piggery and tool house. Not far from the main barn have been constructed five buildings with suitable yards and appliances for incubating eggs and rearing domestic fowls.

The agriculture class room is provided with a collection of grains and grasses, implements of horse and hand culture, and various appli-

ances for carrying on instruction and conducting investigations. The whole plant is managed with a view to the greatest economy consistent with the greatest efficiency in imparting instruction.

Courses

The courses in the college attended by veterinary students are given by the department of Agriculture proper and are as follows,

3. **Horses**, breeds and breeding, feeding, education, care and driving. First term, Two lectures weekly. M., W., 9. Sept. 27 to Dec. 20. (Morrill Hall, room 19.) Professor ROBERTS.
21. **Animal Industry**.—Principles of breeding, history and development, creation and improvement of dairy and beef breeds of cattle (dairy building); principles of feeding, care, selection and management of dairy and beef cattle. Jan. 3 to June 13. Two lectures weekly; Practice, one hour by appointment, for those electing it. M., W., 12. Assistant Professor WING.

SURGERY, OBSTETRICS, ZOOTECHNICS AND JURISPRUDENCE

The instruction consists of class room and laboratory work designed to produce symmetrical training for successful practice.

Surgery

CLASS-ROOM WORK

Course 30 (see courses p. 27). General Veterinary Surgery. This course with course 40, Department of Pathology and Bacteriology (General Pathology) and Course 31 of Surgery (Surgical Exercises) constitutes a complementary group intended to impart a general knowledge of the principles of surgery, surgical pathology and therapeutics and operative technic.

Courses 32 and 33 (see page 27), a total of 130 lectures and recitations devoted to the surgery of the various regions of the body. The facilities for instruction are in keeping with the general aim and scope of the college.

The college possesses an unusually extensive collection of surgical instruments and apparatus both ancient and modern, of home and foreign make, illustrating the history of veterinary surgery as indicated by the means employed in the cure of disease.

It has also acquired the very extensive pathologic collection accumulated by Cornell University since its foundation, to which have

been added the very valuable private collections of Dr. W. L. Zuill, formerly Dean of the Veterinary Department, University of Pennsylvania, of the late Dr. John Busteed, founder of the New York College of Veterinary Surgeons, a series of valuable specimens from Dr. S. H. Swain, Decatur, Ill., the private collection of Prof. W. L. Williams, many important single contributions by veterinarians and numerous and constant additions from the college clinics.

The museum containing instruments, pathologic and normal preparations, is commodious, admirably lighted and arranged. The material is well preserved, carefully grouped, labelled and indexed and is constantly accessible to students for study, in addition to being used for class demonstrations.

Surgery and Obstetrics

LABORATORY WORK AND CLINICS

The laboratory work in surgery and obstetrics consists of Surgical Exercises and of Surgical and Obstetric Clinics.

The courses in surgical exercises comprise 28 periods of three hours each. Having previously studied surgical anatomy on the cadaver, the student is required to perform all the important operations on anaesthetized animals, which are destroyed at the close of each exercise. Strict method is enforced in relation to asepsis and antisepsis, arrest of hemorrhage, suturing and dressing, so that while acquiring skill and a knowledge of the appearance, resistance and general characters of living tissues, the student also forms proper habits in surgical procedure.

Obstetrical Exercises are given by appointment throughout the year. For this work a strong skeleton is used, in which an artificial uterus is fixed. Newly born calves are procured, killed and so placed in the artificial uterus that the various corrections of position and of embryotomic operations are carried out by the student under the direction of the instructor in charge.

Clinical Surgery and Obstetrics 2 to 4 P. M., daily. One and one-half years (3 terms). Students in charge of cases are required to give necessary attention on Sunday. Students are notified of urgent cases and are expected to attend any hour or day. The clinics comprise :

1. *The Minor Clinic* in which cases are entered for examination, prescription or minor operation and are removed the same day. This corresponds closely to the usual clinics of veterinary colleges.

2. *The Hospital Clinic*, comprising cases for major operations or extended treatment, and detained in the hospital until convalescent.

3. *Out door or Perambulating Clinic*, comprising important cases not readily brought to the college such as difficult labor in the mare and cow, severe fractures in horses and cattle and other cases of sufficient interest which are attended at the owner's premises.

Every case of each class is entered under a serial number and assigned to a student who is required to examine, diagnose, operate upon and care for it until discharged at which time he must file a complete daily record of the case. These records are bound, carefully indexed and placed in the library for reference and study.

The surgical and obstetric clinics (distinct from those of medicine, parasites and contagious diseases) reach approximately 800 cases per annum, the value of which is much greater than many times the number superficially observed by students in a paid clinic.

The location of the college and its plan of organization gives unusual opportunities for clinical instruction in the character of the cases, the variety of species of animals, and the availability of each case for purposes of instruction. The city of Ithaca contributes a large number of dogs, cats and pet animals, and horses affected with lameness and other diseases characteristic of city work animals, while the tributary agricultural region furnishes an unusually varied and instructive clinic of the diseases of young and breeding animals, castration and spaying, and the diseases of meat producing, dairying and work animals, with the accidents incident to both city and country practice. Numerous cases, especially those of major surgical operations are drawn from a radius of 25 to 50 miles. We thus offer the widest range of clinical material in relation to age and species of animal and character of disease.

The hospital wards with accommodations for 24 horses and cattle are almost constantly filled. The hospital is heated by steam, lighted by electricity and equipped with every convenience to insure comfort to patient and student.

As each member of the veterinary faculty is exclusively employed by the college and is in no degree dependent upon private practice, all reasonable effort is exercised to lead owners to enter animals in the free clinics instead of diverting special cases to private practice.

The college clinics being wholly free, regardless of the value of the animal, the severity of the proposed operation or the owner's ability or willingness to pay, obviates the usual disadvantages of free clinics where largely inferior animals, the property of poor and frequently careless people, are presented in a state of health and with general surroundings not propitious for testing the value of a line of treatment or of following it to a successful issue, failing consequently

to impart the desired knowledge, interest or enthusiasm to the student, which results when he has to deal with animals of the same general character and value as those met with in ordinary veterinary practice.

All operations, with rare exceptions in unusually difficult cases, are performed by competent students in turn, under proper supervision, thus fitting them to carry out any desired operation supported by that confidence and skill which only actual work can give.

We thus offer a free clinic in which major operations on animals of value are carried out by students, and the patients detained and cared for without charge for professional service. The operating room has cement floors, glass and iron walls and ceiling, heated by steam and lighted by electricity. It is fitted with the best operating tables, stocks and other apparatus procurable, for confining and restraining animals with the working of which the student becomes thoroughly familiar. Chloroform and other anaesthetics are regularly used in painful operations, always administered by the student. Instruments and apparatus of the most improved patterns are kept directly at hand in the operating room, the student becoming familiar with their good and bad points by actual use. New instruments of improved patterns are constantly being designed and tested. A complete equipment for aseptic and antiseptic surgery is in constant use by the students and every facility given to learn the most advanced methods of anaesthesia and asepsis.

Special investigations in relation to surgical diagnosis, pathology and treatment are constantly being carried on, the material for such work being abundant. Special apparatus for investigation is supplied as needed, and advanced students are called upon to assist in the various investigations, becoming not only more familiar with surgical manipulations but inspired to study methodically and effectively the many questions in surgical pathology and therapeutics, and thus become better prepared to cope promptly and properly with the many atypical cases constantly occurring in general practice.

OBSTETRICS

Course 36 (see page 28), consisting of 70 lectures and recitations, is given during the second term at the time when Obstetric clinics are most available.

The course is preceded by an extended study of embryology, obstetric anatomy and physiology.

Models and valuable museum preparations are used for illustration. Our location permits of the securing of much valuable clinical ma-

terial, obstetric cases being attended free at the owner's premises by the class, under the personal direction of the professor. The students are in this way brought into actual contact with a class of cases the proper handling of which cannot otherwise be effectively taught.

ZOÖTECHNICS

The subject of Zoötechnics is chiefly taught in the College of Agriculture (see courses 3 and 10, p. 23), covering the various breeds of domestic animals, the method of breeding and handling.

Supplementary to this instruction a course of 15 lectures is given dealing especially with the breeding, care and management of animals in relation to disease, hereditary disease and vices and a general résumé of the subject of breeding and care as related to veterinary science.

JURISPRUDENCE

A course of eight lectures is given during the first term of the third year, dealing with the general responsibilities of veterinarians, to the public, to stock owners and professional colleagues; methods of making and recording examinations for soundness, and a special study of physical diagnosis and prognosis as related to this subject.

Practice is given in the work at the clinics.

Courses

SURGERY

30. General Surgery.—Two lectures per week, September 27 to December 20. W., F., 11. Professor W. L. WILLIAMS.

For admission to this course, students must have completed course 10, in Anatomy, course 20 in Physiology, and course 1 in Histology and Embryology.

31. Surgical Exercises.—Three hours per week of laboratory work from September 27 to December 20. W., 7 to 10 P. M. Professor W. L. WILLIAMS and Dr. STONE.

Requirements for admission as in course 30.

This course is given each year, and is pursued by second and third year students, that is, each student takes the course twice.

32. Surgery of the Head, Neck and Chest.—Two lectures or recitations per week. First term, M., T., 11. Professor W. L. WILLIAMS.

Requirements for admission, courses 30 and 31.

- 33. Surgery of the Limbs, Skin, Abdominal Organs, Genito-Urinary System and Castration.**—Four lectures or recitations weekly. Second term, M., W., Th., F., 11. Professor W. L. WILLIAMS.

The requirements for admission are the same as for course 32. This course will be given to second and third year students in 1901 and 1902. See course 36 with which it alternates.

- 34. Surgical Clinics.**—Twelve hours or more per week throughout the year. M., T., W., Th., Fr., Sat. 2-4 P. M. Professor W. L. WILLIAMS and Dr. STONE.

For second year students attendance is required during the second term, for third year students attendance is required throughout the year.

For admission students must have passed courses 30 and 31. The time given above includes the medical clinics, conducted by Professor LAW. See course 53, under medicine.

- 35. Jurisprudence.**—Two lectures per week during the month of January. W., F., 11. Professor W. L. WILLIAMS.

- 36. Obstetrics and Zootechnics.**—Four lectures and recitations per week, second term. M., W., Th., F., 11. Professor W. L. WILLIAMS.

For admission students must have passed courses 30 and 31.

This course alternates with course 33. It will be given to second and third year students in 1902-1903.

- 37. Research and Thesis.**—Seven and one-half hours weekly throughout the year. Professor W. L. WILLIAMS and Dr. STONE.

COMPARATIVE PATHOLOGY, BACTERIOLOGY AND MEAT INSPECTION

The instruction in pathology and bacteriology is given by means of lectures, recitations and laboratory work. In general pathology Ziegler's text book is followed though supplemented by the results of more recent investigations as they are found in current literature and special monographs. In pathological histology the students will be taught, by actual laboratory work, the methods of preparing permanent preparations and of examining diseased tissues in the fresh condition. They will have the privilege of studying blood and of counting the red and white corpuscles. For this highly important work the laboratory is especially well equipped.

The bacteriological laboratories are well supplied with the best modern apparatus. The students will, under proper supervision, prepare culture media, make various cultures and study the morphology of bacteria in both the fresh (living) condition and in stained cover-glass preparations. In fact, all of the technique necessary for a practical working knowledge in bacteriology will be carefully covered. The more important species of pathogenic bacteria will be studied. The special methods which are necessary for diagnosing such diseases as tuberculosis, anthrax, glanders and the infectious swine and poultry disorders will receive careful attention. Disinfection, sterilization, the means by which pathogenic bacteria are disseminated, protective inoculation, serum therapy in animal diseases and other kindred subjects will be fully considered.

For those who wish to do advanced work in either of these subjects excellent facilities are afforded. As we are constantly investigating outbreaks of infectious diseases, among animals in the state, an abundance of working material is assured. This enables the student to come into touch with actual work in bacteriological diagnosis.

As is seen from the above, it is the aim of this department to drill the students by means of actual work in the technique necessary for them to successfully apply in their future professional duties the knowledge acquired in the study of pathology and bacteriology. To this end the courses of instruction have been carefully arranged, and for this purpose the laboratories have been equipped.

Courses

- 40.—**General Pathology.**—First term. This course is open to students who have had Normal Histology and at least one year's work in Anatomy and Physiology. Two recitations and six hours laboratory work each week. Recitations M. and W. 9. Lab. M. and T. 10-1. Professor MOORE, Instructor REED and Mr. BURNETT.
41. **Pathology of Infectious Diseases and Meat Inspection.**—First term. Open to students who have taken Course 40, and have taken or are taking Course 43. Two lectures and six hours laboratory work each week. Lectures T. and Th. 9. Lab. Th. 10-1, Sat. 8-11. Professor MOORE, Instructor REED and Mr. BURNETT.
43. **Bacteriology.**—Second term. This course is open to students, who have had, or are taking Course 1 in Microscopy. Two lectures and ten hours laboratory work each week. Lectures M. and T. 9. Lab. work T., W., F. and S. Professor MOORE, Instructor REED and Mr. BURNETT.

44. Research in Pathology and Bacteriology.—Laboratory work with lectures and seminary (see p. 33 for College Seminary), throughout the year. Professor MOORE and Instructor REED.

The course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake original investigation in Pathology and Bacteriology. This course is open to students who have taken Courses 40 and 41 if the work is in Pathology or Course 43 if in Bacteriology, or their equivalent in some other university. Elementary chemistry and a reading knowledge of French and German are indispensable for successful work in this course.

VETERINARY MEDICINE; ZYMOTIC DISEASES, VETERINARY SANITARY SCIENCE; PARASITES AND PARASITISM

The course in veterinary medicine, principles and practice, extends over the last two years of undergraduate study, the subjects of the second year being distinct from and complementary to those of the first. It includes the constitutional, dietetic and toxic affections and the noninfectious maladies of the different systems of organs—digestive, respiratory, circulatory, urinary, cutaneous and visual—of the various genera of domestic animals. The wide scope of the course covering as it does the varied manifestations of a given morbid condition in all domestic animals in turn, the complications in each, caused by constitution, environment, utilization, microbial infection, etc., and the application of prophylactic and therapeutic measures to all in turn, is aimed to give a breadth and soundness of view which should render the student a reliable and skillful veterinary pathologist, physician and sanitarian.

The course on contagious diseases and veterinary sanitary science and police is given every second year, alternating with the course on parasites and parasitism. It deals with the general subject of zymosis and contagion; the microbiology of diseases in which microörganisms constitute the essential factor; the accessory and restrictive environment, such as condition of soil, water, air, climate, culture, season, weather, animal industries, trade, migration, war, consumption of animal food, etc.; the diagnosis of the different plagues; the various methods of suppression by the individual owner, the municipality, town, county, state or nation; and the exclusion of pestilences from a country. The transmissibility of each contagious disease to differ-

ent genera of animals, from animal to man, and from man to animals together with the susceptibility of each genus to immunization and the best known means of securing this, receive due attention.

Enzoötic diseases are carefully studied and the various causative factors in location, environment, in constitutional or racial susceptibility are fully dealt with, as subsidiary to prevention and treatment.

The course on parasites and parasitic diseases is given every second year alternating with contagious diseases. It covers all those cases of plagues and widespread destruction of animals that depend on parasites other than the microörganisms. It deals with each parasite separately, its place in nature; its life history in connection with the animal body and apart from it; the lesions, symptoms and mortality caused by it; the conditions that would enhance the mortality from habitually harmless parasites; the genera susceptible; the diagnosis, destruction and prevention. An already very extensive and constantly growing collection of animal parasites is available for demonstration.

The very full treatment in these courses of contagious and parasitic diseases, is aimed at developing a new class of veterinarians, who will be able to meet scientifically the growing demand for veterinary sanitary work along private lines, and as a public health measure, instead of leaving this to officials who lack the necessary training.

The **Medical Clinic** course 53 covers the whole of the above subjects, so far as fresh material can be secured for this purpose. Our proximity to the city on the one side and a well stocked agricultural country on the other, tends to secure a greater variety of patients, than can be had in a large city apart from country flocks and herds. Students take charge of individual cases in the hospital and keep a record of cases and treatment. Out patients are also availed of for this purpose. (See also, clinics in the department of surgery.)

Courses

50. Veterinary Medicine, Principles and Practice.—Three lectures per week throughout two years. M., W., F., 8. Professor LAW.

51.—Contagious Diseases; Veterinary Sanitary Science.—Two lectures per week throughout the year. T., Th., 8. Professor LAW.

[This course will be given to second and third year students in 1902-1903. See course 52.]

- 52. Parasites and Parasitism.**—Two lectures per week throughout the year. T., Th., S. Professor LAW.

Course 52 alternates with 51. It will be given to second and third year students in 1901-1902.

- 53. Clinical Veterinary Medicine.**—Twelve hours or more per week throughout the year. M., T., W., Th., Fr., Sat. 2-4 P. M. Professor JAMES LAW and Dr. P. A. FISH.

For second year students attendance is required during the second term, for third year students attendance is required throughout the year.

The clinical work in Medicine and in Surgery is combined. For the amount of time required see under Surgery, Course 34.

- 54. Research and Thesis.**—Seven and one-half hours weekly throughout the year (see the College Seminary, p. 33). Professor LAW.

ADVANCED AND RESEARCH WORK

The opportunities for study and investigation offered to advanced students in the college and in the various departments of Cornell University are very great. The situation of the college gives it a great variety as well as an abundance of material for research, and the facilities for prosecuting the work are ample. Each student, as a part of his last year's work must write a thesis giving the results of a personal investigation upon some subject in veterinary medicine. (See under requirements for graduation, p. 12.) To students preparing theses and to graduate students every opportunity and encouragement will be offered for carrying on independent investigations. For special courses offering thesis and research work see under the various departments pp. 15-32.

THE ROSWELL P. FLOWER LIBRARY AND OTHER LIBRARY FACILITIES

The Flower Library.—By a gift of five thousand dollars (\$5,000) to Cornell University for the purpose, the *Honorable Roswell P. Flower* laid a broad foundation for a thoroughly good working, veterinary library. The books and periodicals obtained with this fund have been considerably increased by donations from various persons and by books obtained from the income of the college; the Veterin-

ary library is also largely supplemented by the University library, and by loans of books and periodicals therefrom.

The Periodical Room at the college is open daily from 7 A. M. to 6 P. M., and contains the leading veterinary and medical periodicals in English, French and German. In it are also found Foster's Encyclopædic Medical Dictionary and the Index Catalog of the Medical Library of the Surgeon General's Office.

The Flower Library Room is open for free consultation, Tu. and Sat., 10-12, Thur., 3-5, and contains most of the books and bound periodicals belonging to the library or loaned to it from the University Library. Books bearing especially upon the work of any laboratory course, are kept upon the book shelves of the laboratory where they are constantly accessible. Books may be drawn from the library for home use by veterinary students.

The books and bound periodicals and transactions in the University Library upon veterinary and human medicine, with allied sciences, exceed ten thousand (10,000) volumes. Over 600 periodicals and transactions are received, many of them pertaining directly to medicine and biology. To all the University library facilities the veterinary students have free access in the library reading room, which is open daily from 8 A. M. to 11 P. M.

SEMINARIES

The different departments hold seminars or special conferences for their advanced and graduate students at intervals.

The purpose of these seminars is : (a) To discuss the methods for advanced and independent work, that is, such work as is expected of those preparing theses or prosecuting any special investigation ; (b) The presentation of the results of investigations and the progress of knowledge in the various departments ; (c) Reports by students of the progress of their work and thus to show not only their progress to the faculty and their fellow students, but to gain facility in public speaking and in preparation for taking a creditable part in veterinary or medical societies.

SOCIETY OF COMPARATIVE MEDICINE

This is a student society organized for the purpose of giving mutual aid in gaining general and special medical knowledge, facility in conducting the exercises of the meetings and in presenting papers and discussions in a clear and forcible manner before an audience.

**FREE TUITION FOR RESIDENTS OF NEW YORK
STATE**

In the words of the law for the administration of the New York State Veterinary College: "No tuition fee shall be required of a student pursuing the regular veterinary course, who, for a year or more immediately preceding his admission to said veterinary college shall have been a resident of this state."

For students, not residents of New York State, the tuition is \$100 per annum, \$55 to be paid at the beginning of the first, and \$45 at the beginning of the second term.

Laboratory Fees.—Every person taking laboratory work is required to pay for the material actually used. This will average approximately \$25 per year.

At the end of the course a fee of \$5.00 is required of each student receiving a degree.

The fees for the short course are given on p. 37.

Living expenses in Ithaca vary from \$3.50 to \$10 per week. Books, instruments, stationery, etc., cost \$10 and upwards per year.

SCHOLARSHIPS AND FELLOWSHIPS

University Undergraduate Scholarships.—At a special examination held at the beginning of the fall term in each year, eighteen scholarships, of the annual value of \$200 each, are thrown open to competition for all members of the First Year class in the University, who are registered in courses leading to the first degree. By recent official action, this competition is open, under the rules, to First Year students in the Veterinary College. For a full statement of the provisions regulating the bestowal and tenure of these University Undergraduate scholarships, see the University Register, 1900-1901, pp. 58-61.

University Fellowships for Graduates.—One University fellowship of the annual value of \$500, is open to competition for graduates of the Veterinary College. See University Register, 1900-1901, p. 64.

THE HORACE K. WHITE PRIZES

These prizes established by Horace K. White, Esq., of Syracuse, are awarded annually to the most meritorious students in the gradu-

ating class of the college. One prize of \$15 to the first in merit ; to the second in merit, a prize of \$10.

OPPORTUNITIES FOR SELF HELP

In addition to occasional and irregular work at a certain sum per hour in the various departments ; there are positions open to capable veterinary students in their senior and graduate years as follows :

Anatomy	\$125 per year
Histology	\$250 per year
Physiology	\$250 per year
Surgery	\$500 per year
Bacteriology and Pathology	\$500 per year

Tuition fees are not required from assistants.

SHORT COURSE FOR VETERINARIANS

The rapid advances in veterinary knowledge and methods of teaching veterinary science have led the faculty of the New York State Veterinary College to offer a brief course designed specially for busy practitioners. With this end in view, the course has been so arranged that it may, in so far as time will permit, serve as: 1. A review in the various departments of veterinary knowledge. 2. A presentation of the various subjects by the most modern teaching methods, especially laboratory instruction with the aid of superior equipment. 3. A presentation in a brief manner of the most important recent advancements in our profession. The date of the course has been fixed at that season (Jan. 3 to Jan. 31) of the year when it is believed general practitioners are, as a rule, least busy and can with minimum financial loss leave their practice. While a special course is arranged and offered in each department, all will be wholly elective and the veterinarian is at liberty to take any or all the courses offered. In addition, the practitioner will be permitted to attend any of the regular classes, including the medical and surgical clinics, and to participate in the work so far as practicable without interfering with the advantages of regular students.

The period of four weeks and the month of January were chosen for the *short course* after full consideration of the convenience of practitioners, and a careful selection and arrangement of the lecture-room, laboratory and clinical instruction which past experience shows to be really practicable and most useful in such a course.

Attention is again called to the fact that for those who are able to prolong their stay beyond the four weeks, the ample opportunities offered by the regular courses of the college are open.

Admission

1. Graduates of Veterinary colleges who are licensed or legally entitled to practise in their respective states.
2. Licensed non-graduate veterinarians in the State of New York after passing satisfactory examinations in anatomy, and physiology.

The following works represent about the knowledge required in the various subjects:

Anatomy.—Chauveau, Comparative Anatomy of the Domesticated Animals, Strangeway's Veterinary Anatomy or M'Fadyean's Anatomy of the Horse.

Physiology.—F. Smith. A Manual of Veterinary Physiology.

Fees

Tuition free to residents of New York. Laboratory fees to cover the actual expense of material used, not to exceed \$10 for the session.

For Veterinarians from other states, tuition \$20, and laboratory fees not to exceed \$10.

Calendar

The short course opens Thursday, January 3, and closes Thursday, January 31, 1902.

FACILITIES FOR STUDY

For library, laboratory and clinical facilities, see the preceding pages of this Announcement.

OUTLINE OF COURSES

Veterinary Medicine

A regular course of 3 hours per week will deal with diseases of the digestive organs. The regular course of 2 hours per week will deal with parasites of the digestive organs in domestic animals.

Students desiring it can pursue special studies along the lines of sporadic diseases in their relation to environment, use, and casual infection and the newer remedies; parasitic or contagious diseases; and the general subjects of infection, immunization, serum tests and treatment, and veterinary sanitary work—private, municipal, State or National. Dr. LAW.

Surgery

While the equipment for the work is extensive, simplicity and effectiveness of apparatus and method are kept constantly in mind, and the defects and disadvantages of complex, cumbersome instruments pointed out as carefully as the value of the more effective appliances.

During the period covered by the Short Course the following regular work is in progress in the department of surgery :

January. Mon., Tu., 11 A. M., Surgery of Head, Neck and Chest. Wed., and Fri., 11 A. M., Jurisprudence.

Surgical clinics 2-4 P. M. daily, except Sunday, throughout the course.

Surgical Operations—A thorough course will be offered in operative surgery based upon Pfeiffer & Williams' "Surgical Operations." This course is given upon the living animal under anaesthesia and is designed to familiarize the veterinarian with chloroform anaesthesia, aseptic methods in operating, operative technique, methods of confinement, bandaging, hemostasis, etc., etc. The technique of operations will be simplified so far as possible in order that it may be readily applied in private practice.

Thorough drill will be afforded in the various methods of confinement, by operating table, stocks, and casting harness.

The facilities offered for this work are of the best, the operating room is well lighted so that operations can be conducted as perfectly by night as by day. It is heated by steam, and every convenience and comfort possible afforded.

Schedule—Wednesday and Friday, 7-10 P. M.

Obstetrics.—Laboratory work will be offered in the principles of mutations in mal-presentations and in embryotomy.

The skeleton of a cow has been specially mounted for this work, and fitted with an artificial uterus into which newly born calves or foals are placed and the various changes in position or embryotomic operations are carried out, demonstrating the simplest and most effective means for overcoming the various forms of dystokia in the mare and cow. Professor WILLIAMS and Dr. STONE.

COMPARATIVE PATHOLOGY AND BACTERIOLOGY

All persons registering in the short veterinary course may, if they desire, attend the lectures and recitations of the regular courses which will be on general pathology and the pathology of infectious diseases and meat inspection.

In addition to this the following special courses are provided.

1. *General Pathology*.—One lecture with demonstrations each week. In this course the more important topics of general pathology will be discussed.
2. *Bacteriology*.—One lecture and two hours laboratory work each week. In this course the fundamental principles of bacteriology will be discussed and in the laboratory the various bacteria which cause disease in animals will be demonstrated both in culture and microscopically. The methods of sterilization, staining tubercle bacilli and other practical procedures will be taught.
3. *Pathology of Infectious Animal Diseases*.—One lecture and demonstration each week. In this course the differential diagnosis of infectious animal diseases will be considered. Professor MOORE and Instructor REED.

Histology and Embryology

The short course in Histology and Embryology will consist of sixteen exercises, that is four each week, conducted by Professor GAGE.

At these exercises there will be a discussion of the main facts concerning the microscopic structure of the normal tissues and organs and demonstration of the tissues and organs under the microscope and with the electric projection microscope. This will enable every member of the class to see the actual specimens as well as to hear about them in lectures and read about them in the best modern textbooks in histology. There will also be abundant opportunity for inquiries by members of the class concerning difficult or obscure points.

In Embryology the same general plan will be followed. The College is well supplied with embryological preparations and each member of the class will have opportunity to examine the main stages of development.

Materia Medica and Urine Analysis

In Materia Medica some of the important drugs used in veterinary practice will be thoroughly discussed with respect to their physiological and therapeutic action. Prescription writing and the incompatibility of drugs will also be referred to. This course will be given in the form of lectures, twice a week.

In Urine Analysis the work will be given in the form of demonstrations and explanations, special attention being given to the importance of urine examination with respect to the diagnosis and prognosis of disease. One exercise each week. Dr. FISH.

Anatomy

The work in anatomy, in so far as practicable, will be arranged to meet individual needs and will be confined to those parts most subject to surgical or medicinal treatment. The following outline will give some idea of the nature of the work :

1. Extent and relation of the facial sinuses in the horse and other domestic animals.
2. Dissection or study of the muscles of the limbs with special reference to their synovial sheaths and bursae.
3. Dissection of the inguinal and sacro-coccygeal regions.
4. Topographical study of the thoracic and abdominal viscera.
5. The brachial and lumbo-sacral nerve plexuses including the relations of the nerves to blood vessels and other parts.
6. Certain of the cranial nerves particularly the trifacial, the facial, the vagus and spinal accessory.
7. The foot.
8. The lymphatic system. Professor HOPKINS and Demonstrators UDALL and SHAW.

APPENDIX A

Openings for Veterinarians in America

1st. In the United States Cavalry and Artillery there is a demand for a limited number of veterinarians.

2nd. In the Bureau of Animal Industry, U. S. Department of Agriculture, a number of veterinarians are employed professionally, as livestock agents and inspectors; inspectors and superintendents of quarantine stations; investigation in bacteriology and pathology, and as meat inspectors. (By an act of Congress the federal meat inspectors must be graduates of a veterinary college).

3rd. In the different States there are appointments as State Veterinarians, and in some as County or District Veterinarians, to attend to preventable diseases of animals.

4th. The time is not far distant when each municipality must have its veterinary inspector of markets, abattoirs and butcher meat, as well as of milk and other dairy products.

5th. Accomplished veterinary pathologists are needed in all the states to serve on tuberculosis and other commissions, so that work in this field may be conducted intelligently and successfully on scientific lines. Such work on our herds can only be carried on by those specially trained in the anatomy, physiology, hygiene and pathology of the lower animals.

6th. Educators in comparative pathology are wanted in Agricultural and Veterinary Colleges, and experiment stations, and must ere long be in demand for every Medical College which aims to keep abreast of the times.

7th. There are always openings in the wide field of private veterinary practice. With a ratio of three farm animals to every human being, and with less than one veterinarian to every ten doctors of medicine for man, the balance of opportunity seems to be largely in favor of the veterinary practice, and this preponderance must steadily increase with the recovery of stock values and with the increase in numbers of farm animals.

New York has about 2000 veterinary practitioners, and with an average of 30 years of practice, will demand 66 new practitioners yearly to keep the ranks full. Under the new requirements the regents licenses to practise, granted after examination, were but 7 in 1896-7 and 8 in 1897-8. This leaves an apparant deficiency of 117 in two years, which must be made up from the graduates in the State Colleges, or by candidates from outside the State, who can show an equally high, matriculation and professional education. As the Veterinary Colleges in other States do not come up to the legal standard set for New York, the main supply must come from colleges within our own commonwealth. The result must be that our stock owners will be furnished with better veterinary service and that the accomplished veterinarian will secure a constantly increasing and more remunerative practice.

APPENDIX B

Legal requirements for license to practise veterinary medicine and surgery in the State of New York. Extracts from article X, Ch. 860, laws of New York, 1895.

§ 171. *"Qualifications for practise.* No person shall practise veterinary medicine after July one, eighteen hundred and ninety-five, unless previously registered and legally authorized, unless licensed by the Regents and registered as required by this article ; nor shall any person practise veterinary medicine who has ever been convicted of felony by any court, or whose authority to practise is suspended or revoked by the Regents on recommendation of a State Board.

§ 176. *Admission to examination.* The Regents shall admit to examinations any candidate who pays a fee of ten dollars and submits satisfactory evidence, verified by oath if required, that he (first) is more than twenty-one years of age ; (second) is of good moral character ; (third) has the general education required in all cases after July first, eighteen hundred and ninety-seven, preliminary to receiving a degree in veterinary medicine ; (fourth) has studied veterinary medicine not less than three full years, including three satisfactory courses, in three different academic years, in a veterinary medical school registered as maintaining at the time a satisfactory

standard; (fifth) has received a degree as veterinarian from some registered veterinary medical school. The degree in veterinary medicine shall not be conferred in this state before the candidate has filed with the institution conferring it, the certificate of the Regents that three years before the date of the degree, or before or during his first year of veterinary medical study in this State, he has either graduated from a registered college or satisfactorily completed an academic course in a registered academy or high school; or has a preliminary education considered and accepted by the Regents as fully equivalent." [See pp. 9-10 for preliminary educational requirements].

§ 178. *Examinations and Reports.*—Examination for license shall be given in at least four convenient places in this State and at least four times annually, in accordance with the Regents' rules, and shall be exclusively in writing and in English. Each examination shall be conducted by a Regent examiner, who shall not be one of the veterinary medical examiners. At the close of each examination, the Regent's examiner in charge shall deliver the questions and answer papers to the board, or to its duly authorized committee, and such board without unnecessary delay, shall examine and mark the answers and transmit to the Regents an official report, signed by its president and secretary, stating the standing of each candidate in each branch, his general average, and whether the board recommends that a license be granted. Such report shall include the questions and answers and shall be filed in the public records of the university. If a candidate fails on his first examination, he may, after not less than six months' further study, have a second examination without fee. If the failure is from illness or other cause satisfactory to the Regents, they may waive the required six months' study.

§ 179. *Licenses*—On receiving from the State board an official report that an applicant has successfully passed the examination and is recommended for license, the Regents shall issue to him, if in their judgment he is duly qualified therefor, a license to practise veterinary medicine. Every license shall be issued by the university under seal and shall be signed by each acting veterinary medical examiner of the board and by the officer of the university who approved the credentials which admitted the candidate to examination, and shall state that the licensee has given satisfactory evidence of fitness, as to age, character and preliminary and veterinary medical education and all other matters required by law, and that after full examination he has been found properly qualified to practise Before any license is issued it shall be numbered and recorded in a book

kept in the Regents' office and its number shall be noted in the license. This record shall be open to public inspection, and in all legal proceedings, shall have the same weight as evidence that is given to a record of conveyance of land.

§ 180. *Registry*—Every license to practise veterinary medicine shall before the licensee begins practice thereunder, be registered in a book to be known as the "veterinary medical register," which shall be provided by and kept in the clerk's office of the county where such practice is to be carried on, with name, residence, place and date of birth, and source, number and date of its license to practise. Before registering, each licensee shall file, to be kept in a bound volume in the county clerk's office, an affidavit of the above facts, and also that he is the person named in such license, and had, before receiving the same, complied with all requisites as to attendance, terms and amount of study and examination as required by law and the rules of the university as preliminary to the conferment thereof, and no money was paid for such license except the regular fees, paid by all applicants therefor; that no fraud, misrepresentation or mistake in any material regard was employed by any one or incurred in the order that such license should be conferred. Every license, or if lost, a copy thereof, legally certified so as to be admissible to evidence, or a duly attested transcript of the record of its conferment, shall before registering be exhibited to the county clerk, who only in case it was issued or indorsed as a license under seal by the Regents, shall indorse or stamp on it the date and his name preceded by the words: "Registered as authority to practise veterinary medicine, in the clerk's office of ——— county." The clerk shall thereupon give to every veterinarian so registered a transcript of the entries in the register, with a certificate under seal that he has filed the prescribed affidavit. The licensee shall pay to the county clerk as a total a fee of one dollar for registration, affidavit and certificate."

CATALOG OF STUDENTS

IN THE

NEW YORK STATE VETERINARY COLLEGE

FOR THE SESSION OF 1900-1901

STUDENTS WORKING FOR A VETERINARY DEGREE

	RESIDENCE	YEAR
Beebe, H. S.	Burdett	2d
Brown, A. G.	Ithaca	1st
Burnett, S. H.	Ithaca	2d
Bushnell, F. F.	Ithaca	2d
Davenport, M. L.	Ithaca	1st
Divins, C. M.	Buffalo	1st
Dunlavey, R. J.	Ithaca	2d
English, B.	Van Etten	2d
Fehr, F. F.	Ithaca	1st
Fisher, C. W.	Cabot, Vt.	3d
Flocken, C. F.	Ithaca	3d
Foster, R. J.	Ithaca	2d
Gallagher, B. A.	Ithaca	3d
Grant, J.	Ithaca	1st
Grant, W. D.	Barre, Vt.	2d
Hamilton, M.	Cicero	1st
Hazen, R. H.	Ithaca	1st
Holford, F. D.	Ithaca	2d
Hughes, D. A.	Ithaca	1st
Jackson, A. J.	Ithaca	1st
Kanstoroon, D. S.	New York City	3d
Knapp, J. B.	Etna	2d
LeFevre, D. D.	Ithaca	1st
Loomis, F. J.	Phoenix	1st
Lueder, C. A.	Wilkesbarre, Pa.	2d
Millen, C.	Ithaca	1st
Miner, G. H.	Ithaca	1st
Nutting, L. A.	Syracuse	2d
Pierce, F. A.	Cuba	1st
Reed, R. C.	Ithaca	3d
Reidy, J. B.	Ithaca	2d
Rosenthal, J. W.	New York City	2d
Seaman, A. M.	Ithaca	2d

Shaw, C. E.	Perry City	3d
Simons, F. B.	Volney	1st
Smith, E. I. J.	Kennedy	1st
Spencer, C. J.	Jasper	1st
Stroud, B. B.	Ithaca	1st
Udall, D. H.	Craftsbury, Vt.	3d
Ward, A. R.	Ithaca	3d
Wilbur, B. R.	Clear Creek	1st
Wilder, J. L.	Ithaca	3d
Zimmer, L. L.	Weedsport	1st

GRADUATE STUDENTS TAKING WORK IN THE VETERINARY COLLEGE

Mitchell, W. J.	Ithaca
Stone, G. T.	Binghamton

SHORT COURSE FOR PRACTITIONERS

Childs, T. S.	Saratoga Springs
Dodds, W. G.	Canandaigua
Doyle, E. B.	Moravia
French, O. B.	Honeoye Falls
Kellogg, D. M.	Farmer
Killip, H.	Batavia
Morrison, A. S.	Chesterville, Ontario, Canada
Salisbury, W. H.	Clifton Springs
Vorhis, E. F.	Owego
Williams, M. D.	Middleport

Special Students in Short Course

Pinckney, S. V.	Pontiac, Ill.
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STUDENTS FROM THE COLLEGE OF AGRICULTURE TAKING ONE YEAR MORE OR LESS OF VETERINARY INSTRUCTION

Arnold, Mary	Plainfield, N. J.
Baker, A. W.	West Dryden
Barlow, F. S.	South Onondaga
Bradley, E. C.	Madrid
Brown, W. M.	Unadilla Forks
Bruns, G. J.	Niagara Falls
Button, H. F.	Cottons
Caldwell, E. L.	Corpus Christi, Tex.

Carter, William	West Chester, Pa.
Clements, D. H.	Liberty
Cole, Asa C.	Little Falls
Cole, Claude C.	Ovid
Cowden, C. W.	Versailles
Cowell, A. W.	Auburn
Crary, W. R.	Liberty
Crosby, R.	Wayne
Crouch, H. E.	Cohocton
Dunham, John	Old Chatham
Gerow, C. H.	Washingtonville
Glazier, C.	Dryden
Harding, A. B.	Hornellsville
Harter, J. W.	Columbia
Hetherington, A. L.	Big Flats
Holmes, E. M.	Franklinville
Holton, N. E.	Collins Center
Hopper, H. A.	Ithaca
Hosford, G. W.	Mexico
Hunziker, O. F.	Zurich, Switzerland
Kelly, C. M.	Burke
Kelsey, C. E.	North Tonawanda
King, W. E.	South Kortright
Kraatz, C. H.	Akron,
Lacey, F. W.	Black Creek
Lauder, A. G.	Binghamton
McLallen, H. C.	Trumansburgh
McMahon, Thomas	Stamford
Marsh, R. A.	New Britain, Conn.
Matthews, A. S.	Buffalo
Matthews, R. B.	Scranton, Pa.
Morgan, Wm. M.	Seaford, Del.
Moulton, L. H.	Cuba
Newkirk, F. A.	Liberty
Phelps, E. M.	Cortland
Phillips, C.	Thornton
Place, Ira T.	South West Oswego
Potter, L. E.	New Britain, Conn.
Procter, Percy, Jr.	Oakland, Md.
Reed, Mabel	Somerville, N. J.
Richards, F. H.	Enfield, Mass.
Roberts, G. V. Jr.	Port Byron
Roberts, S. W.	Remsen
Rogers, Harriette	Garrison
Ruggles, A. G.	Annapolis, N. S., Can.
Sackett, G.	Irving
Sagendorph, A. H.	Spencer, Mass.
Sanford, E. B.	Honeoye Falls
Sawai, Zeuhichi	Kitagun, Ehima, Japan
Schrader, A. H.	Wellsville
Shafer, A. F.	Olean
Shapley, S. L.	Randallsville

Shepson, H. M.	Farmer
Snyder, J. I.	Marion
Steward, F. H.	Kirk
Stewart, M. F.	Mariposa
Tiffany, J. B.	Hop Bottom, Pa.
Tucker, G. M.	Albany
Ulmer, R. D.	Hepburn, Pa.
Van Vleet, B. S.	North Hector
Vreeland, J. A.	Irona
Walker, J. C.	Linwood
Welling, C. S.	Johnsonville
West, George H.	Reber
Wiese, N. E.	Wawarsing
Williamson, O. E.	West Township
Winters, H. B.	Smithboro
Wright, C. W.	Worcester, Mass.

SUMMARY

*Veterinary Students	45
†Veterinary Short Course Students	11
‡Partial Course Veterinary Students from the College of Agriculture	76
Total	132

*The Veterinary Students are working for a degree or having already graduated at a Veterinary College, are taking graduate work to perfect themselves in special branches, or finally are endeavoring to make good the defects of their veterinary education obtained in too short a time or with inferior facilities.

†Veterinary Short Course Students are practitioners of Veterinary Medicine for whom a special course is given (see pp. 36-40), to put them in possession of the latest and most successful methods of medical and surgical treatment. This course also offers opportunity for becoming acquainted with the advancement in the sciences which form the basis for all good medical work.

‡Partial course veterinary students are from the College of Agriculture. Their purpose as future agriculturalists, is to gain such knowledge of veterinary science as will be of use to them in the care, breeding and raising of farm animals. This part of the Veterinary College's work seems very important for the live stock interests of the state, and likewise indirectly for a better appreciation of the hygienic precautions necessary for the preservation of the health not only of the animals but of man.

CORNELL UNIVERSITY

PUBLICATIONS

1. The Cornell University Register. This is the general publication of the University, and gives information upon all colleges and departments. It also contains a catalog of the Board of Trustees, the Faculty and the Students.
 2. Announcement of all courses of instruction.
 3. Question papers used at examinations for admission, admission to advanced standing and for university scholarships.
 4. Announcement of the Cornell University summer session.
 5. Announcement of the College of Law.
 6. Announcement of the College of Agriculture.
 7. Announcement of the New York State Veterinary College.
 8. Announcement of the College of Architecture.
 9. Announcement of the Cornell University Medical College.
 10. Announcement of summer courses in medicine.
 11. Announcement of the New York State College of Forestry.
 12. Bulletins of the Cornell University Agricultural Experiment Station.
 13. Teachers' leaflets in Nature Study.
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Any of the above publications and other special announcements may be had upon application. Address: *The Registrar of Cornell University, Ithaca, N. Y.*

CORNELL UNIVERSITY

DEPARTMENTS AND COLLEGES

GRADUATE DEPARTMENT

Degrees, A.M., Ph.D., etc.

ACADEMIC DEPARTMENT

Degree, A.B.

COLLEGE OF LAW

Degree, LL.B.

MEDICAL COLLEGE

Degree, M.D. New York City and Ithaca.

NEW YORK STATE VETERINARY COLLEGE

Degree, D.V.M.

COLLEGE OF AGRICULTURE

Degree, B.S.A.

NEW YORK STATE COLLEGE OF FORESTRY

Degree, B.S.F.

COLLEGE OF ARCHITECTURE

Degree, B.Arch.

COLLEGE OF CIVIL ENGINEERING

Degree, C.E.

SIBLEY COLLEGE OF MECHANICAL ENGINEERING AND MECHANIC ARTS

Degree, M.E.