
CORNELL UNIVERSITY OFFICIAL PUBLICATION

VOL. 30

August 1, 1938

No. 3

Announcement of The New York State Veterinary College 1939-40



PUBLISHED BY CORNELL UNIVERSITY AT ITHACA, N. Y.

Monthly in September, October, and November

Semi-monthly, December to August inclusive

*[Entered as second-class matter, December 14, 1916, at the post office at Ithaca,
New York, under the act of August 24, 1912]*

THE UNIVERSITY CALENDAR

1939-40

1939

FIRST TERM

Sept.	18, <i>Monday</i> ,	Entrance examinations begin.
Sept.	25, <i>Monday</i> ,	Registration and assignment, new students.
Sept.	26, <i>Tuesday</i> ,	Registration and assignment, old students.
Sept.	28, <i>Thursday</i> ,	Instruction begins at 8 A.M.
Oct.	19, <i>Thursday</i> ,	Last day for the payment of tuition for the first term.
Nov.	29, <i>Wednesday</i> ,	Instruction suspended at 4 P.M. (<i>Thanksgiving Recess</i>)
Dec.	4, <i>Monday</i>	Instruction resumed at 8 A.M.
Dec.	20, <i>Wednesday</i> ,	Instruction suspended at 4 P.M. (<i>Christmas Recess</i>)
Jan.	4, <i>Thursday</i> ,	Instruction resumed at 8 A.M.
Jan.	11, <i>Thursday</i> ,	Founder's Day.
Jan.	29, <i>Monday</i> ,	Final examinations begin.
Feb.	7, <i>Wednesday</i> ,	Final examinations end.
Feb.	8, <i>Thursday</i> ,	A holiday.

SECOND TERM

Feb.	9, <i>Friday</i> ,	Registration of all students.
Feb.	12, <i>Monday</i> ,	Instruction begins at 8 A.M.
March	4, <i>Monday</i> ,	Last day for the payment of tuition for the second term.
March	30, <i>Saturday</i> ,	Instruction suspended at 12:50 P.M. (<i>Spring Recess</i>)
April	8, <i>Monday</i> ,	Instruction resumed at 8 A.M.
May	—, <i>Saturday</i> ,	Spring Day: a holiday.
June	3, <i>Monday</i> ,	Final examinations begin.
June	11, <i>Tuesday</i> ,	Final examinations end.
June	17, <i>Monday</i> ,	COMMENCEMENT.

NEW YORK STATE VETERINARY COLLEGE

FACULTY

- EDMUND EZRA DAY, S.B., A.M., Ph.D., LL.D., President of the University.
LIVINGSTON FARRAND, A.B., M.D., L.H.D., LL.D., President Emeritus.
SIMON HENRY GAGE, B.S., Professor of Histology, Emeritus.
WALTER LONG WILLIAMS, Professor of Obstetrics and Research Professor in the Diseases of Breeding Cattle, Emeritus.
GRANT SHERMAN HOPKINS, B.S., D.Sc., D.V.M., Professor of Veterinary Anatomy, Emeritus.
WILLIAM ARTHUR HAGAN, D.V.M., M.S., D.Sc., Professor of Bacteriology and Dean of the College.
DENNIE HAMMOND UDALL, B.S.A., D.V.M., Professor of Veterinary Medicine and Director of the Ambulatory Clinic.
HOWARD JAY MILKS, D.V.M., Professor of Therapeutics and Director of the Small Animal Clinic.
JAMES NATHAN FROST, D.V.M., Professor of Veterinary Surgery and Director of the Surgical Clinic.
RAYMOND RUSSELL BIRCH, B.S.A., D.V.M., Ph.D., Professor and Superintendent of the Veterinary Experiment Station.
HENRY HUGH DUKES, B.S., D.V.M., M.S., Professor of Veterinary Physiology.
EARL SUNDERVILLE, D.V.M., Professor of Veterinary Anatomy and Secretary of the Faculty.
CHARLES ERNEST HAYDEN, A.B., D.V.M., Professor of Veterinary Physiology.
PETER OLAFSON, D.V.M., M.S., Professor of Pathology.
HERBERT LESTER GILMAN, D.V.M., M.S., Ph.D., Professor of Research.
HADLEY CARRUTHERS STEPHENSON, B.S., D.V.M., Professor of Materia Medica and Small Animal Diseases.
MYRON GUSTIN FINCHER, D.V.M., M.S., Professor of Medicine and Obstetrics.
HENRY ASMUS, Assistant Professor of Farriery.
EARL LOUIS BRUNETT, D.V.M., M.S., Assistant Professor of Poultry Diseases.
ALEXANDER ZEISSIG, B.S.A., D.V.M., M.S., Ph.D., Assistant Professor of Bacteriology.
DONALD WYCKOFF BAKER, B.S.A., D.V.M., Ph.D., Assistant Professor of Parasitology.
KENNETH FRANKLIN HILBERT, D.V.M., Assistant Professor of Poultry Investigation. (Stationed at Farmingdale, L. I.)
WALTER JOSEPH GIBBONS, D.V.M., M.S., Assistant Professor of Medicine and Obstetrics.
CLIFFORD WARREN BARBER, D.V.M., Ph.D., Research Assistant Professor of Poultry Diseases.
SETH DARWIN JOHNSON, D.V.M., Research Instructor in Medicine.
WILLIAM MORRIS EVANS, D.V.M., Instructor in Diagnosis.
MALCOLM EUGENE MILLER, D.V.M., B.S.A., M.S., Instructor in Anatomy.
PHILIP PINCUS LEVINE, M.S., D.V.M., Ph.D., Research Instructor in Poultry Diseases.
ARTHUR GORDON DANKS, D.V.M., B.S. in Agr., Instructor in Surgery.
WINFIELD SCOTT STONE, D.V.M., M.S., Research Instructor in Veterinary Medicine.
HENRY THOMAS BATT, B.V.S.C., M.V.Sc.(Tor.), Instructor in Veterinary Physiology.
WILLIAM SEASTREAM MONLUX, D.V.M., Instructor in Pathology.
HERMAN TAX, D.V.M., Research Instructor in Poultry Diseases. (Stationed at Farmingdale, L. I.)
FRED DRY MAURER, B.S., B.S.V.M., D.V.M., Instructor in Bacteriology.
CLEMENT IGNATIUS ANGSTROM, D.V.M., Research Instructor in Poultry Diseases.

JEAN FERGUSON, A.B., M.S., Research Assistant in Medicine.
 JAMES ANDREW BAKER, B.S., M.S., Ph.D., Research Assistant in Bacteriology.
 ROBERT ORVIETT ALLEN, D.V.M., Assistant in Materia Medica.
 WILSON BRYAN BELL, Student Assistant in Bacteriology.
 RALPH EUGENE LOOMIS, Student Assistant in Anatomy.
 ALEXANDER DONALD RANKIN, Student Assistant in Physiology.
 DONALD R. CORDY, B.A., D.V.M., M.S., Lederle Fellow.
 LEWIS HUGH WILLIAMS, Laboratory Technician.
 LLOYD HERBERT SCRIVNER, D.V.M., Cooperator in Bang's Disease Research, U.S.B.A.I.
 RICHARD WILLIAM STAUB, Agent in Bang's Disease Control (Cooperative), U.S.B.A.I.
 PAUL SENEAL GOETCHIUS, Agent in Bang's Disease Control (Cooperative), U.S.B.A.I.
 ROBERT HENRY JOHNSON, Agent in Bang's Disease Control (Cooperative), U.S.B.A.I.
 JOHN PATRICK SULLIVAN, Agent in Bang's Disease Control (Cooperative), U.S.B.A.I.

FLOYD KARKER RICHTMYER, Ph.D., Dean of the Graduate School.
 FRANK BARRON MORRISON, B.S., M.S. in Agr., Professor of Animal Husbandry.
 ELMER SETH SAVAGE, Ph.D., Professor of Animal Husbandry.
 HAROLD ELLIS ROSS, B.S.A., M.S. in Agr., Professor of Dairy Industry.
 EDWARD SEWELL GUTHRIE, Ph.D., Professor of Dairy Industry.
 WINFRED ENOS AYRES, Assistant Professor of Dairy Industry.
 BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D., Professor of Histology and Embryology.
 EDWIN SHEPHERD HARRISON, B.S., Professor of Animal Husbandry.
 BARBOUR LAWSON HERRINGTON, Ph.D., Assistant Professor of Dairy Industry.
 ROBERT BYRON HINMAN, Ph.D., Assistant Professor of Animal Husbandry.
 JOHN PETER WILLMAN, Ph.D., Assistant Professor of Animal Husbandry.
 HOWARD BERNHARDT ADELMANN, Ph.D., Assistant Professor of Histology and Embryology.
 W. F. BRUCE, Ph.D., Instructor in Chemistry.

THE STATE COLLEGE COUNCIL

The President, *Chairman*; The Provost, J. DUPRATT WHITE, EDWARD R. EASTMAN, STANTON GRIFFIS, MYRON C. TAYLOR, GEORGE R. VANNAMEE, HORACE WHITE, HOWARD E. BABCOCK, MILLARD H. DAVIS, FRANK P. GRAVES, HOLTON V. NOYES, MAURICE C. BURRITT, MARY H. DONLON, HARPER SIBLEY, CARL E. LADD, WILLIAM A. HAGAN, P. J. PARROTT, HOWARD J. MILKS, DWIGHT SANDERSON, RICHARD BRADFELD, FLORA ROSE.

LECTURERS 1938-39

Dr. W. L. Williams, *Ithaca*; Dr. George L. Stringham, *Wappingers Falls*; Dr. Don A. Boardman, *Rome*; Dr. L. E. Moore, *Amsterdam*; Dr. Irving Altman, *Brooklyn*; Dr. E. R. Cushing, *Plainfield, N. J.*; Dr. E. T. Faulder, *Albany*; R. A. McIntosh, V.M.D., B.V.Sc., Professor of Obstetrics and Diseases of Cattle, Ontario Veterinary College, *Guelph, Ontario, Canada*; Frank Breed, D.V.M., The Norden Laboratories, *Lincoln, Nebraska*; J. R. Varley, D.V.M., E. R. Squibb and Sons, *New Brunswick, N. J.*; A. F. Coca, M.D., Lederle Laboratories, Inc., *Pearl River*; Hon. Holton V. Noyes, Commissioner of Agriculture, *Albany*; Carl G. Snavely, *Cornell University*; Richard E. Shope, M.D., Rockefeller Institute, *Princeton, N. J.*; Dr. Edmund E. Day, President of Cornell University.

DIRECTORY OF THE COLLEGE

President of the University, Morrill Hall.
 Dean of the Veterinary College, south wing, James Law Hall.

Allen, R. O., Assistant, Small Animal Building.
Angstrom, C. I., Instructor, Room 111, Moore Hall.
Asmus, Henry, Assistant Professor, Surgical Building.
Baker, D. W., Assistant Professor, south wing, James Law Hall.
Baker, J. A., Assistant, Room 313, Moore Hall.
Barber, C. W., Assistant Professor, Room 217, Moore Hall.
Batt, H. T., Instructor, third floor, James Law Hall.
Birch, R. R., Professor, Room 1, first floor, James Law Hall.
Brunett, E. L., Assistant Professor, Room 114, Moore Hall.
Cordy, D. R., Fellow, Room 216, Moore Hall.
Danks, A. G., Instructor, Room 2, first floor, James Law Hall.
Dukes, H. H., Professor, Room 4, first floor, James Law Hall.
Evans, W. M., Instructor, Room 103, Moore Hall.
Ferguson, Jean, Assistant, Medical Building.
Fincher, M. G., Professor, Medical Building.
Frost, J. N., Professor, Room 2, first floor, James Law Hall.
Gibbons, W. J., Assistant Professor, Medical Building.
Gilman, H. L., Professor, second floor, James Law Hall.
Goetchius, P. S., Cooperative Agent B.A.I., Room 104, Moore Hall.
Hagan, W. A., Professor, Room 301, Moore Hall.
Hayden, C. E., Professor, third floor, James Law Hall.
Hopkins, G. S., Professor Emeritus, Room 12, second floor, James Law Hall.
Johnson, R. H., Cooperative Agent B.A.I., Room 104, Moore Hall.
Johnson, S. D., Instructor, Medical Building.
Levine, P. P., Instructor, Room 111, Moore Hall.
Maurer, F. D., Instructor, Room 312, Moore Hall.
Milks, H. J., Professor, Small Animal Building.
Miller, M. E., Instructor, north wing, James Law Hall.
Monlux, W. S., Instructor, Room 210, Moore Hall.
Olafson, Peter, Professor, Room 209, Moore Hall.
Scrivner, L. H., Cooperative Agent, B.A.I., second floor, James Law Hall.
Staub, R. W., Cooperative Agent, B.A.I., second floor, James Law Hall.
Stephenson, H. C., Professor, Small Animal Building.
Stone, W. C., Instructor, second floor, James Law Hall.
Sullivan, J. P., Cooperative Agent, B.A.I., Room 104, Moore Hall.
Sunderville, Earl, Professor, Room 3, James Law Hall.
Udall, D. H., Professor, Medical Building.
Williams, L. H., Assistant, Room 212, Moore Hall.
Zeissig, A., Assistant Professor, Room 308, Moore Hall.

Librarian, Edith C. Williams, second floor, James Law Hall.
Assistant Librarian, Mrs. S. H. Burnett, second floor, James Law Hall.

Financial Secretary, H. H. Haight, south wing, James Law Hall.
Stenographer and Secretary to the Dean, Ethel Fernow, south wing, James Law Hall.
Clerk, E. B. Houseweller, south wing, James Law Hall.
Clerk and Stenographer, Alice Clapp, Medical Building.
Clerk and Stenographer, Dorothy Gannett, first floor, James Law Hall.
Stenographer, Mable Howell, Room 108, Moore Hall.
Stenographer, Gladys Bailey, Room 103, Moore Hall.
Stenographer, Catherine Clapp, Small Animal Building.

Machinist, Archie Wilson, basement, James Law Hall.
Groom, W. C. Selover, cottage.
Groom, George Willis, Medical Building.
Groom, Fay Davis, Surgical Building.
Teamster, Ray Newman, Experiment Station.

Attendant, Thad Brown, south wing, James Law Hall.
“ Thomas Merrill, north wing, James Law Hall.
“ O. H. Newman, Surgical Building.
“ L. F. Kirk, Small Animal Building.
“ J. T. Mitchell, north wing, James Law Hall.
“ Ira Fowler, Experiment Station.
“ Wm. Fowler, Experiment Station.
“ J. M. Honness, Experiment Station.
“ Carl Sears, Experiment Station.
“ Ralph Phillips, Experiment Station.
Janitor, Eugene Heckman, Room 317, Moore Hall.
Janitor, Joseph Krupa, Room 213, Moore Hall.
Laborer, Joseph Fatula, Medical Building.
Laboratory caretaker, Carolyn Bush, Room 303, Moore Hall.
Laboratory helper, Mrs. Mary Drake, Room 303, Moore Hall.

THE FOUNDATION OF THE COLLEGE

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 provision was made for the buildings, equipment, and maintenance of the College 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," the Trustees of Cornell University were intrusted with its administration.

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 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 economic questions which will contribute to the more profitable breeding, rearing, and utilization of animals; to produce reliable standard preparations of toxins, antitoxins, and other productions to be used in 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 standards of veterinary investigation and instruction to the level of the most recent advances in biology and medicine. According to the 1934 census of the United States the number of farm animals in the State, exclusive of poultry and pet animals, was 2,998,000 of the value of \$36,188,400. This gives some idea of the great financial interest at stake in the matter of live stock. The latest census report for 1935 gives the value of the live stock of the United States on farms exclusive of poultry and pet animals at \$2,871,431,560. The value of poultry in New York State is \$13,409,000. 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; therefore, 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 higher 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, 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 is the aim of the College to train thoroughly a class of veterinarians for dealing with all diseases and defects that depreciate the value of our live stock, and with the causes that give rise to them. It further aims, as far as it has the means and opportunity, to maintain a center of investigation looking toward discoveries in the nature of diseases, in therapeutics, and in the immunization of animals from contagion; and toward the production of biological products to be employed in diagnosis, treatment, and immunization. So much has been discovered recently in these directions and present knowledge points so unmistakably to coming discoveries, that to neglect this field at the present time would be very unfortunate. Furthermore, it is the purpose of the College to be of as much assistance as possible to the practitioners of veterinary medicine.

SITUATION

The New York State Veterinary College is situated at Ithaca, a city of 21,000 population, at the head of Cayuga Lake, 263 miles from New York City, on the Lehigh Valley and Lackawanna Railroads. The college buildings are near the center of the campus of Cornell University.

BUILDINGS

The College is housed in six principal buildings forming a quadrangle. All of these except the latest are of buff pressed brick; the main portion of the recently constructed Moore Laboratory is of native seam-faced limestone.

The main building (James Law Hall) is a three story building facing East Avenue across a small park. The first floor is largely occupied by the College Museum. Several offices, including that of the College Secretary where newly arrived students should register, are also found on this floor. The greater part of the second floor is occupied by the laboratories and offices of the Veterinary Experiment Station. The third floor and basement contain the laboratories of the Department of Physiology.

The Veranus A. Moore Laboratory of Pathology was completed and equipped in 1938. It is the most complete and best equipped structure of its kind in America. It is an L-shaped building of three stories

and a basement. The basement contains the operating machinery for the refrigeration plant, the elevator and the other services, a feed storage room, a cool room for storing paraffin tissue blocks, and a student locker and lounging room. The first floor contains two lecture rooms, two suites of rooms for the general and poultry diagnostic laboratories, respectively, offices and, in the rear, quarters for large experimental animals. The second floor is devoted to the offices and laboratories of pathology. Two undergraduate teaching laboratories, a teaching museum, preparation and slide storage rooms, a photographic unit, a seminar room, and a number of offices and individual research laboratories are found in the main portion of this floor. In the rear, opening on a terrace at the level of the clinic buildings is a large autopsy room, fitted with the most modern of equipment, including an hydraulic table for large animals, smaller tables for small animals, a large refrigeration room, and a small laboratory. The third floor is devoted to bacteriology. Two teaching laboratories, a chemical laboratory, a media kitchen and sterilizing unit connected by an electric dumbwaiter to the laboratories on the first and second floors, and a number of offices and individual research laboratories occupy the greater part of this floor. In the rear are the quarters for small experimental animals.

The Small Animal, the Medical, and the Surgical Buildings form a group, commonly called the Clinical Buildings. They are three stories in height and face Garden Avenue overlooking Alumni Field.

The Small Animal Building contains a large, modern operating room, drug rooms, X-ray room, and kennels and cages for patients. There are a number of wards for infectious diseases and skin diseases. The offices, laboratories, and examining rooms of the clinic are found on the second floor, and the laboratories for materia medica and pharmacy on the third.

The Medical Building contains, on the ground floor, a clinic hall, a drug room, a physical examination room for large animals, wards for patients, and a garage for the cars of the Ambulatory Clinic. The second floor contains wards for patients, a lecture room, a clinical diagnostic and research laboratory and offices. The third floor contains an apartment for the groom and rooms for the internes. A loft provides storage space for hay and grain. A freight elevator provides means of handling feed and large animal patients.

The Surgical Building contains, on the ground floor, two isolation wards for horses and cattle and a demonstration hall. The second floor contains a completely equipped shop for the teaching of horse-shoeing. The third floor is used for classrooms and a museum.

The Surgical Ward is situated behind the Surgical Building. It is two stories high and is devoted almost entirely to stalls for large animal, surgical patients. At the south end of this building is the Operating Pavilion, a large operating room equipped with stocks, an hydraulically-controlled operating table, and the necessary sterilizing machines and surgical instruments for aseptic surgery.

The Experiment Station Farm is situated about two and one-half miles east of the Campus and consists of one hundred thirty-three acres. On this farm there are two well-equipped, steam-heated laboratory buildings, one for poultry disease investigation, the other for research in parasitology. There is also a building for the breeding of small, experimental animals, a work shop, six barns for cattle, two for swine, one for horses, and numerous small isolation buildings. Several residences for staff members complete the list of buildings. All buildings are supplied with running water, and the principal ones are lighted electrically.

LIBRARIES AND MUSEUMS

The Veterinary College not only has a good special library of its own, the Roswell P. Flower Library, but it also enjoys the free use of the University Library and other college libraries containing more than 900,000 volumes and over 2,500 current periodicals and transactions of societies. Its own museum, moreover, is supplemented by other University museums, among which, of particular value to the college, are those of vertebrate and invertebrate zoology (including entomology), agriculture, botany, and geology.

THE ROSWELL P. FLOWER LIBRARY

The college is fortunate in having the Flower Veterinary Library, containing over 13,500 volumes and 150 current periodicals, second to no other special veterinary library in the country. This library is made up of two collections, a small one purchased with state funds, and the main collection purchased with the proceeds of a fund begun by Roswell P. Flower in 1897 with a gift of \$5,000 to the University for the use of the Veterinary College. Four thousand dollars of this gift was used immediately for the purchase of books, leaving \$1,000 as a source of income. This sum was increased, first in 1900 by \$10,000 given by Mrs. Flower, and in 1929 by about \$8,000 added largely through the efforts of Dr. Frank H. Miller, for many years trustee of the University.

Besides texts in the fields covered by the curriculum and related subjects, the library carries over a hundred American and foreign periodicals and receives pertinent publications from all other important colleges and experiment stations. The University also deposits a number of special periodicals and handbooks in this library, which increases its serviceability.

The library is in the south wing of James Law Hall with stack room and spacious reading room open from 8:30-6. In the main reading room are the current numbers of periodicals—veterinary and medical—the catalogue, indices, reference books and texts bearing especially on class work. In an adjoining room are the stacks, which are generally open to the students.

Books may be drawn for home use as from the University and Agricultural libraries. These and the Chemistry library are also

accessible to Veterinary students and extend their opportunities in the fields of general and special literature. The library also borrows largely from the New York Academy of Medicine and the Army Medical Library in Washington, thus opening to research workers the main collections of medical literature in the country.

ADMISSION

No student may be admitted to the Veterinary College until he has secured from the New York State Education Department a Veterinary Student Qualifying Certificate. The requirements for this certificate are:

".....the satisfactory completion of at least one year of study in a registered college of liberal arts and sciences or its equivalent, as determined by the Commissioner. This year of study shall include English, six semester hours; inorganic chemistry, six semester hours. Correspondence regarding this preliminary education requirement and particularly regarding the equivalent should be addressed to the Supervisor of Professional Schools Qualifying Certificates, State Education Department, Albany, N. Y." The "satisfactory completion of at least one year of study" has been interpreted as meaning the passing of at least 30 semester credit units of work. Certificates are not sent to the applicants but are filed with the Veterinary College when requisition is made for them.

The approval forms which are returned to applicants by the Education Department should be filed with the Director of Admissions, who will requisition the certificates.

In addition to fulfilling the requirements for the Veterinary Qualifying Certificate, every student admitted to the Veterinary College must have completed *at least 4 credit hours of college zoology*.

In some instances courses in Biology are accepted, but only when the college catalogue indicates that these courses contain the equivalent of four credits in zoology, or when the Head of the Department furnishes a statement to this effect.

A final requirement should be met, if possible, at the time of application, but may be deferred until after admission, if necessary. This is the *Farm Practice Requirement*. At least 10 Farm-practice points, as determined by the Farm Practice Department of the New York State College of Agriculture, are necessary and of these at least five must be for experience with farm animals, exclusive of poultry. These credits are based on actual farm experience with animals. Students who have had one or two summers or more of *actual farm work* on general farms, where livestock (horses, cattle, swine or sheep) are kept, should be able to satisfy this requirement. Those who are deficient may be admitted as Freshmen, in which case they must remove the deficiencies within two years. None will be allowed to begin the work of the Junior year until the requirement has been met in full.

The applicant should also write as early as possible to the Director of Admissions of Cornell University, Morrill Hall, Ithaca, New York,

requesting the application forms for admission to the Veterinary College. The Director of Admissions will require a transcript of the applicant's college record; hence the candidate should procure two transcripts, one for the Department of Education at Albany, and the other for the University.

The number of students that can be admitted annually is limited. It is likely that the number of applicants who meet the scholastic requirements will exceed the number that can be accepted. In this case a Committee on Admissions of the faculty of the Veterinary College will select those to be admitted after considering not only the formal preparation but also the available evidence bearing on each applicant's character, seriousness of purpose, and fitness for the work that he proposes to undertake. This committee will require a personal interview, whenever this is feasible.

Priority of application is not necessarily a determining factor in the selection of students to be admitted; nevertheless, the gathering and weighing of the necessary evidence require time, and, as the Committee will begin filling the eligible list early in the Spring, it is advantageous to the candidate to file his application early. Students who have not completed the work required for the Veterinary Student Qualifying Certificate but expect to do so prior to July 1 may apply and the committee will act on the application provisionally. June 1 is the latest date for filing applications.

RULES GOVERNING ADMISSION

Besides satisfying the entrance requirements, candidates for admission must comply with the following rules:

1. Every candidate for admission must deposit twenty-five dollars with the University. Candidates are warned not to send cash through the mails. A check, draft, or order should be payable to Cornell University and should be sent to the Office of Admissions, Cornell University, not later than June 1.

If the candidate matriculates, the deposit will be credited to his account, \$10 for the matriculation fee and \$15 as a guaranty fund, which every undergraduate student is required to maintain and which is to be refunded upon his graduation or permanent withdrawal, less any indebtedness to the University.

If admission is denied a candidate, the deposit is refunded in full.

A candidate may withdraw the application for admission, but a charge of \$10 is regularly made for accrued expenses unless the application is withdrawn and a refund of the deposit in full is claimed before June 1. If an application is not withdrawn until after the due date of the college concerned, but is withdrawn before August 31, the \$10 charged for accrued expenses is deducted and \$15 of the deposit is refunded. No refund is made to an applicant who withdraws the application after August 31.

(The winner of a New York State Tuition Scholarship in Cornell University may apply for admission to the University and make the required deposit of \$25 immediately after receiving formal notice of his appointment from the Commissioner of Education at Albany.)

2. Every candidate for matriculation must submit to the Director of Admissions a satisfactory certificate of vaccination against small-

pox, not later than August 1. It will be accepted as satisfactory only if it certifies that within the last five years a successful vaccination has been performed or three unsuccessful attempts at vaccination have been made.

3. Every candidate for admission must file with his application at the Office of Admissions either a certificate of good moral character or, if he has attended some other college or university without graduating from it, a certificate of honorable dismissal from it.

ADMISSION TO ADVANCED STANDING

Applicants for admission to advanced standing as members of the second, third, or fourth year class must present the necessary educational qualifications for admission to the first year class, and must pass satisfactory examinations in all the work for which they desire advanced credit, or offer satisfactory certificates of the completion of this 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.

Graduates of Veterinary colleges whose requirements for graduation are not equal to those of the New York State Veterinary College may be admitted upon such terms as are fixed by the State Department of Education in Handbook No. 12. 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 page 11 and Appendix B.

ADMISSION TO GRADUATE STUDY

Graduates of this college or other colleges may enter the Graduate School of Cornell University and pursue work in the Veterinary College and allied departments of the University. A prospective graduate student should consult the Announcement of the Graduate School and apply to the Dean of the Graduate School.

ADVANCED WORK AND RESEARCH

The Veterinary College, alone or in combination with other departments of the University, offers advanced students excellent opportunities for study and investigation. Its situation gives it abundant and varied material for research, and it has ample facilities for the prosecution of such work. It encourages graduate and advanced students to carry on independent investigations. Courses of study especially adapted to advanced work and research will be found among those listed on pages 19-30.

SEMINARIES

The several departments of the College hold seminars or special conferences for their advanced and graduate students. The seminary hears reports of the results of investigations and the progress of knowledge in its particular field; discusses methods of advanced and independent work such as is expected of those who are preparing theses or prosecuting any special investigation; and hears the reports

of the students on the progress of their work. By means of the seminary the student incidentally gains facility in public speaking and fits himself to take a creditable part in the meetings of veterinary or medical societies.

STUDY FOR PRACTITIONERS

The very rapid advance made during recent years in veterinary science and in facilities and methods for teaching it, as well as the advantage to be gained by studying a given subject under more than one teacher, make it highly desirable that busy practitioners should be enabled as far as possible to increase their personal knowledge by means of study at such times as they can leave their practices. The New York State Veterinary College wishes to supply this want so far as practicable and offers every facility at hand to accomplish this end.

Veterinarians who are legally authorized to practice at their places of residence will be admitted to any class in the college at any time and for such period as they may elect, without entrance examinations. They will be wholly free to elect any studies that are being regularly taught at the time, and will be granted all opportunities and facilities offered to regular students as long as these privileges do not interfere with the instruction of the regular students. No tuition will be required from licensed veterinarians practicing in the State of New York. Those taking laboratory courses will be required to pay fees to cover the cost of the material used. Every practicable facility will be offered for special study along desired lines. A study of pages 20-30 (Departments, Methods, and Facilities) will enable a practitioner to determine in advance precisely what work will be in progress at a given date.

This work is offered to veterinarians entirely for the benefit they may derive from increased knowledge in veterinary science and does not contemplate the granting of a degree, certificate, or other evidence of responsibility on the part of the College.

General inquiries in reference to this work should be addressed to the Dean, whereas questions relating to studies in the various departments may be addressed to the heads of the departments concerned.

COMBINED COURSES

Students in the College of Agriculture and in the College of Arts and Sciences of Cornell University may, by a judicious selection of courses, not only obtain the B.S. or A.B. degree but acquire one year's advanced credit in the Veterinary College. The D.V.M. degree may then be obtained after three additional years. Students who wish to follow this course should plan their courses from the very beginning toward this end. They may apply for admission to the Veterinary College at any time after the admission requirements have been met, even though they may not be ready until one or two years later to begin their work.

REGISTRATION

Every student is required to register with the Registrar of the University at the beginning of each term. See the Calendar on page 2 for the exact day. After completing that registration, he must register on the same day with the Secretary of the Veterinary College, Dr. Sunderville, at Room 3, on the first floor of the main building of the College. After being admitted to the University no student is allowed to register after the close of the regular registration day except by special permission.

TUITION AND OTHER FEES

Tuition. For students not residents of the State of New York the tuition in the Veterinary College is two hundred dollars a year, payable \$110 at the beginning of the first term and \$90 at the beginning of the second term. Tuition is free to residents of the State of New York. The law governing the administration of the College provides that "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." A limited number of tuition scholarships are available to non-residents; see Scholarships, page 16.

Students are advised to consult the General Information Number for the University's rules regarding the payment of tuition and other fees.

Laboratory Fees. Every person taking laboratory work is required to pay for the materials actually used. For the first year the laboratory fees will approximate \$43.50; for the second year, \$62; for the third year, \$37.50; for the fourth year, \$10.

A Matriculation Fee of \$10 and an *Examination Book Fee* of \$1 are required of every student upon entrance into the University; these fees must be paid at the time of registration. A new undergraduate student who has made the required deposit of \$25 with the Treasurer need not make an additional payment of these fees, because the Treasurer will draw on the deposit for them.

An Administration Fee of \$5 a term is required, at the beginning of each term, of every student.

A Health and Infirmary Fee of \$6 a term is required, at the beginning of each term, of every student. In return for the Infirmary fee, any sick student is, on his physician's certificate, admitted to the Infirmary, and is given without further charge a bed in a ward, board, and ordinary nursing, for a period not exceeding two weeks in any one academic year.

A Willard Straight Hall Membership Fee of \$5 a term is required, at the beginning of each term, of every student. Its payment entitles the student to a share in the common privileges afforded by the operation of Willard Straight Hall, subject to regulations approved by the Board of Managers of the Hall. A fee of \$5 a term is required of all graduate students except those who are members of the instructing staff, for whom membership is optional. The use of the hall is restricted to those who have paid this fee.

A Physical Recreation Fee of \$4 is required at the beginning of each term of every undergraduate man and woman. Its payment entitles the student, either

to the use of the Gymnasium and the University Playgrounds and to the use of a locker, with bathing facilities and towels, in the Gymnasium, the New York State Drill Hall, or the Schoellkopf Memorial Building, or else to the use of the women's gymnasium, recreation rooms, and playgrounds, and to the use of a locker if that is necessary.

A *Graduation Fee* is required, at least ten days before the degree is to be conferred, of every candidate for a degree. For the first or baccalaureate degree the fee is \$10; for an advanced degree it is \$20. The fee will be returned if the degree is not conferred.

Tuition and other fees become due when the student registers. The University allows twenty days of grace after the last registration day of each term. The last day of grace is generally printed on the registration coupon which the student is required to present at the Treasurer's Office. Any student who fails to pay his tuition charges, other fees, and other indebtedness to the University, or who, if entitled to free tuition, fails to claim it at the Treasurer's office and to pay his fees and other indebtedness, within the prescribed period of grace, is thereby dropped from the University unless the Treasurer has granted him an extension of time to complete payment. For such extension the student is assessed a fee of \$2. A fee of \$5 is charged for the late payment where no extension has been granted.

A tuition fee or other fee may be changed by the Trustees at any time without previous notice.

CHARGES FOR MINOR DELINQUENCIES

Every student is held personally responsible for any injury done by him to any of the University's property.

Assessments, charged to the student's account and payable at the Treasurer's office, are levied upon the student in certain circumstances, under the following rules of the University:

A matriculated student desiring to register after the close of registration day shall first pay a fee of \$5. [Students in the Graduate School are excepted.]

A student desiring to file his registration of studies after the date set by his college for filing the same shall first pay a fee of \$2.

A student desiring to take an examination or other test for the removal of a term condition (including the making up of a mark of "absent" or "incomplete") shall first pay a fee of \$2 for each examination or other test.

A student desiring to make an appointment for the required medical examination or conference after twenty days from the last registration day of the term shall first pay a fee of \$2.

For reasons satisfactory to the proper authority any of the above-mentioned assessments (except that levied for examination or other test to remove a condition) may be waived in any individual case if the student's failure to comply with the regulation was due to ill health or to other reason beyond his control. Application for such a waiver should be made to the Dean of the college enrolling the student, or in the case of the medical examination, to the chairman of the Faculty Committee on Health.

SCHOLARSHIPS AND PRIZES

The following scholarships and prizes are offered to students in the Veterinary College as incentives to earnest study:

University Undergraduate Scholarship. At a special examination held at the beginning of the fall term in each year, eighteen scholarships, continuing for two years and of an annual value of \$200 each, are open to competition by all members of the incoming freshman class of the University. For a statement of the provisions regulating the award and tenure of these scholarships, see the General Information Number.

University Scholarship for Graduates. One University Graduate Scholarship of the value of \$200 is offered annually to a graduate in veterinary medicine. This scholarship is open to graduates of all veterinary schools having requirements for graduation equivalent to those of this college. Applications may be made by graduates or seniors in good standing and should be filed with the Dean of the Graduate School on or before March 15 of the academic year preceding the one for which application is made.

Tuition Scholarships. The trustees have authorized a limited number of scholarships, each of an annual value of \$200, the amount of the annual tuition, to be awarded each year by the Veterinary College. The scholarships are awarded to undergraduate students who are of sufficiently high promise or standing in the judgment of the faculty, who are not residents of New York State, and who have had, before entering, two or more years of college or university training. Each student holding a scholarship must maintain a standing satisfactory to the Veterinary Faculty.

(In recent years the number of New York State applicants has been much greater than can be accommodated. For this reason the number of out-of-state students admitted has been limited and tuition scholarships are rarely awarded. Only those who have extraordinary qualifications and a real need of financial assistance are likely to be considered seriously for these scholarships.)

The Horace K. White Prizes, established by Horace K. White of Syracuse, are awarded annually to meritorious students in the graduating class of the College. They consist of a prize of \$75 to the first in merit and a prize of \$25 to the second in merit.

The Jane Miller Prize of \$40 in veterinary physiology is awarded to the student or students doing the best work in this subject. This prize is usually divided into a first prize of \$25 and a second prize of \$15 and awarded at the end of the junior year.

The James Gordon Bennett Prize of \$40 is offered to members of the graduating class. The award is based upon work in the clinics giving evidence of the ability of the recipient to handle diseased animals humanely. Special emphasis is laid upon the ability of the student to apply effectively local and general anaesthesia.

The Anne Besse Prize of \$40 in the principles and practice of veterinary medicine. This award is based upon work in the clinics giving evidence of ability in clinical diagnosis.

Charles Gross Bondy Prizes. Two annual prizes to be awarded to two senior students who rank highest in proficiency in the courses of practical medicine and surgery of small animals. The first prize is \$25 and the second prize is \$15.

The Merry Prize in Anatomy. This prize is bestowed by Albert E. Merry as a memorial to his father, Addison D. Merry. This prize is usually divided into a first prize of \$30 and a second prize of \$20. It is awarded at the end of the sophomore year to the student or students doing the best work in this subject.

EXPENSES

Living expenses in Ithaca vary from \$8 to \$12 a week. Books, instruments, stationery, etc., cost about \$40 a year.

The laboratory fees are first year, \$51.50; second year, \$62; third year, \$39; fourth year, \$10.

OPPORTUNITIES FOR SELF-HELP

In addition to occasional and irregular work at hourly compensation in the various departments, the following positions as student assistants are open to capable students:

Anatomy	\$400 a year
Bacteriology and Pathology	\$400 a year
Physiology	\$400 a year

THE RULE GOVERNING STUDENT CONDUCT

The University's rule governing the conduct of students is this: "A student is expected to show both within and without the University unfailing respect for order, morality, personal honor, and the rights of others." The authority to administer this rule and to impose penalties for its violation is vested in the University Committee on Student Affairs. The rule is construed as applicable at all times, in all places, to all students of the University. A student may at any time be removed from the University if, in the opinion of the Committee on Student Affairs, his presence is not conducive to the University's best interests.

PRESCRIBED FOUR-YEAR COURSE

LEADING TO THE DEGREE OF DOCTOR OF VETERINARY
MEDICINE (D.V.M.)

REQUIREMENTS FOR GRADUATION

In order to receive the degree of Doctor of Veterinary Medicine (D.V.M.), candidates must satisfy all the entrance requirements (see page 11), must successfully pursue the courses named in the following Schedule of Studies, must have paid all due fees, and must have spent at least one year in residence.

The work of the college is arranged to begin late in September and to close in June. The academic year is divided into two terms. See the Calendar on page 2.

To remain in the Veterinary College, students must pass twelve hours each term with a grade of 70 or higher in six, and must maintain an average of 67 or better for each term.

THE SCHEDULE OF STUDIES

In the following schedule, the figure in the first column after the name of the course is the number of the course and refers to a description on one of the following pages, 20-30; the figures in the second and third columns indicate the hours of credit given for the successful pursuit of the several courses in either term.

FIRST YEAR

<i>Subject</i>	<i>Course</i>	<i>Credit</i>
Anatomy	I	3 —
“	2	1 —
“	3	3 —
“	4	— 6
Histology	6	4 3
Physiology, chemical	11	— 4
“ lectures	12	— 3
Organic Chemistry	375	5 —
Animal Husbandry	I	3 —
Animal Husbandry	10	— 3
Hygiene	I and 2	— —
Military drill		— —
		— —
Total of credit		19 19

SECOND YEAR

Anatomy	5	5 —
Physiology, lectures and recitations	13	3 —
“ laboratory	14	3 —
Pharmacology	20	— 4
Materia Medica and Pharmacy	21	— 2
General Pathology, recitations	40	2 —
“ “ laboratory	40a	2 —
Special Pathology	41	— 2
“ “	41a	— 2

<i>Subject</i>	<i>Course</i>	<i>Credit</i>
General Bacteriology, lectures.....	43	2 —
“ “ laboratory	43a	2 —
Pathogenic Bacteriology	49	— 2
“ “	49a	— 3
Physical Diagnosis	51	— 2
		— —
Total of credit..		19 17

THIRD YEAR

Physiology, applied chemical.....	15	2 —
Embryology	9	— 2
Diseases of Small Animals.....	22	2 —
Materia Medica, recitations.....	23	2 —
Small Animal Clinic.....	25	1 1
Consulting Clinic	34	1 1
General Surgery	30	4 —
Surgical Exercises.....	31	1 —
Special Surgery	32	— 5
Dairy	1	— 3
Poultry Diseases	46	— 2
Food Hygiene.....	48	— 2
Parasites	62	2 —
“	62a	1 —
Medicine	50	3 2
Ophthalmology	55	— 1
		— —
Total of credit....		19 19

FOURTH YEAR

Diseases of Small Animals.....	22a	2 —
Small Animal Clinic.....	25	1 1
Consulting Clinic	34	1 1
Jurisprudence	35	— 1
Horseshoeing	36	1 1
Infectious Diseases, lectures.....	42	2 —
Autopsies	47	1 1
Medicine	50a	2 3
Ambulatory Clinic.....	53	2 2
Obstetrics	54	5 —
Veterinary Hygiene.. ..	56	— 1
Market Milk and Milk Inspection.....	102	— 5
Clinic and Laboratory Practice.....	200	3 3
		— —
Total of credit.....		20 19

DEPARTMENTS; FACILITIES; METHODS;
COURSES OF INSTRUCTION

In the following pages, the names of the departments, with summaries of their particular equipment, facilities, methods, and courses of instruction, are given approximately in the order in which the studies are pursued in the veterinary curriculum.

CHEMISTRY

Chemistry 375. **Elementary Organic Chemistry.** First term. Lectures and laboratory. Five hours credit. Prerequisite, Chemistry 102 or 104. Dr. BRUCE and assistants. M W F S 9, *Baker* 207. Lectures, conferences, and discussion. Laboratory, T 8-10:30, *Baker* 250. Laboratory fee, \$15.

MICROSCOPY; HISTOLOGY; EMBRYOLOGY

Professor, B. F. KINGSBURY; Assistant Professor, H. B. ADELMANN.

This department offers instruction in the theory and use of the microscope and its accessories; in vertebrate histology, in vertebrate embryology, and in histologic and embryologic technique; and opportunity for research in all of these subjects. For all the courses the department is well supplied with the best modern apparatus.

The rooms for the use of this department are in the basement and second floors of Stimson Hall. They consist of a large general laboratory, a research laboratory, preparation room, and laboratories for the instructing staff, where also special demonstrations of difficult subjects are given to small groups of students.

In the courses outlined below, the student gains a practical knowledge of the normal structure of the tissues and organs of the animal body by the direct study of them in the laboratory. From time to time, the ability of the student to recognize the normal structure is tested by the identification of unlabeled preparations. The laboratory work is supplemented by recitations, reviews, and lectures covering the general aspects of the subject.

6. Microscopy and Histology. First and second terms. Credit seven hours. Required of first year students. The exercises each week are as follows: First term: Lectures, M F 8. Laboratory, M F 1:40-4. Second term: Lectures and laboratory, W F 8-11. Professor KINGSBURY and assistants.

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. Laboratory fee, \$6 a term.

Histology. This includes the study of the fine anatomy of the animal body, and also fundamental methods of histologic investigation and demonstration.

9. Embryology. Third year, second term. Credit two hours. The exercises each week are as follows: Lectures, S 9. Laboratory, M 1:40-4. Professor KINGSBURY. A study of the development of the domestic animals (chiefly cat, dog, pig, sheep, cow, horse), the fetal membranes and placenta, together with a general consideration of sex, inheritance, and the laws of development, maternal impressions, etc.

ANATOMY

Professor, EARL SUNDERVILLE; Instructor, M. E. MILLER; Assistant, R. E. LOOMIS.

The instruction in anatomy is by lectures, recitations, and laboratory work, the last 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 functions 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, before taking his final examination, will be required to dissect all parts of the horse or the ox, and such parts of other domestic animals as may prove most expedient.

The courses in anatomy extend over three terms. The first year is devoted to the study of bones, joints, muscles, and certain viscera; the second year, to the vascular and nervous systems and to the organs of special senses.

In the study of the osseous, muscular, digestive, and respiratory 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.

1. Comparative Osteology. First year, first term. Credit three hours. Lecture, F 11. Laboratory, M 9-12; T 10:30-12:30, 1:40-4; Th 10:30-12:30, 1:40-4; S 9-11:30. Professor SUNDERVILLE, Instructor MILLER, and assistants. Laboratory fee, \$5.

2. **Arthrology.** First term. Credit one hour. This course immediately follows course 1. Professor SUNDERVILLE, Instructor MILLER, and assistants.

3. **Myology and Abdominal Viscera.** First term. Credit three hours. In this course the dissection of muscles is begun. Lectures, laboratory hours, etc., the same as in the preceding courses. Professor SUNDERVILLE, Instructor MILLER, and assistants.

4. **Myology, Thoracic and Abdominal Viscera, Lymphatic System, Organs of Special Sense, and a study of the Topographic Anatomy of the Dog, and the regions of the body most subject to surgical operations.** Second term. Credit six hours. Laboratory work, T F 10-12:30; W Th F 1:40-4. Professor SUNDERVILLE, Instructor MILLER, and assistants. Laboratory fee, \$10.

5. **Blood Vessels and Nerves of the Arm, Leg, and Head.** Second year, first term. Credit five hours. Laboratory work, M W Th F 1:40-4; W 10-12:30. Professor SUNDERVILLE and assistants. Laboratory fee, \$7.

200. **Clinical and Laboratory Practice.** Throughout the year. For Senior students in Veterinary Medicine only. Credit three hours a term. (This course is given co-operatively by several departments among which students will divide their time.) M W F 2-4:00.

Students will be assigned in small groups to special work in the surgical and small animal clinics, the diagnostic laboratories, and in topographic anatomy, blood and urine chemistry, parasitology, hematology, clinical pathology, bacteriology and serology.

PHYSIOLOGY

Professors, H. H. DUKES, C. E. HAYDEN; Instructor, H. T. BATT; Student Assistant, A. D. RANKIN.

It is the aim of this department to select from a wide field of important topics those that will be of greatest use to the student in comprehending normal body functions. Without a broad knowledge of normal functions, it is useless to attempt progress in the proper conception of diseased conditions.

Physiology is an intermediary between such subjects as anatomy, histology, zoology, and chemistry, and the more applied and clinical subjects. This fact has been taken into account in determining the proper place of physiology in the curriculum.

The work in the lecture and recitation room is correlated with that in the laboratory, thus affording to the student a better understanding of the perspective and symmetry of the subject than could be obtained otherwise. The lectures are illustrated with lantern slides, moving pictures, charts, anatomical preparations, and demonstrations. The laboratories are well equipped with modern apparatus for work in both the experimental and the chemical phases of physiology.

Those who have the necessary qualifications and interest in physiology are encouraged to pursue their work beyond that given in the regularly scheduled courses.

Courses 11, 12, 13, 14 and 15, listed below are designed primarily for students in Veterinary Medicine and are required of them. However, if space is available, other qualified students will be admitted, but permission to register must be obtained.

10. **Animal Physiology.** First or second term. Credit three hours. A course of lectures or recitations arranged especially for students in Agriculture, but open to others. Students taking this course should be familiar with the first principles of chemistry. Permission to register is not required. First term, M W F 9; second term, M W F 10. Professor HAYDEN.

11. **Chemical Physiology.** First year, second term. Credit four hours. An introductory course in chemical physiology, including the elements of biophysical chemistry. Lectures or recitations, M 9; W 12. Laboratory, T 8-10:30; S 9-11:30. Laboratory fee, \$7.50. Professor HAYDEN and Dr. BATT.

12. **Physiology of the Domestic Animals.** First year, second term. Credit three hours. Lectures and recitations on blood and lymph, circulation, respiration, digestion, and absorption. M W F 8. Professor DUKES.

13. **Physiology of the Domestic Animals.** Second year, first term. Credit three hours. Lectures and recitations on excretion, metabolism, heat regulation, endocrine organs, muscle and nerve, central nervous system, senses, and reproduction. M T W 9. Professor DUKES.

14. **Experimental Physiology.** Second year, first term. Credit three hours. Prerequisite, Course 12 or 13, or its equivalent. A course in experimental physiology in which special emphasis is placed on mammalian physiology. Conference, Th 9. Laboratory: Section I, F 8-1; Section II, S 8-1. Laboratory fee, \$15. Professor DUKES and Dr. BATT.

15. **Applied Chemical Physiology.** Third year, first term. Credit two hours. A laboratory course in which attention will be given to the normal chemical constituents of blood and urine and the quantitative estimation of such as have been found to be most important in physiological and clinical studies. Section I, M F 1:40-4; Section II, W Th 1:40-4. Laboratory fee, \$7.50; deposit, \$5. Professor HAYDEN and Dr. BATT.

[16. **Advanced Experimental Physiology.** Second term. Credit three hours. Prerequisites, Course 12 or 13, or its equivalent, and Courses 14 and 15, or their equivalent. A laboratory course in mammalian and avian physiology. Number taking the course limited to ten. Registration by permission. F 9-1. A conference hour to be arranged. Laboratory fee, \$10. Professor DUKES and Dr. BATT.] Not given in 1939-40.

17. **Special Problems in Chemical Physiology.** Both terms. This course will be adapted to the needs of students and will consist of laboratory work, conferences, collateral readings, and reports. Registration by permission. Hours and credit to be arranged. Laboratory fee, \$2 a credit hour. Professor HAYDEN and Dr. BATT.

18. **Research.** Both terms. Hours to be arranged. For graduates only. Professors DUKES and HAYDEN.

200. **Clinical and Laboratory Practice.** (See page 22.)

MATERIA MEDICA AND SMALL ANIMAL CLINIC

Professors, H. J. MILKS and H. C. STEPHENSON; Assistant, R. O. ALLEN.

The instruction in Materia Medica and Small Animal Clinic consists of lectures, recitations, and laboratory work. The work in pharmacology includes not only the action of medicines but also their preparation and uses. The clinic furnishes abundant material for the study of applied therapeutics and the action of different drugs.

20. **Pharmacology.** Second year, second term. Credit four hours. A study of the actions and uses of the various drugs and their preparation. A varied collection of the crude drugs and their official preparations is available. Four lectures or recitations each week. M T Th F 9. Professors MILKS and STEPHENSON. Prerequisite, Veterinary Physiology 11.

21. **Materia Medica and Pharmacy Laboratory.** Second year, second term. Credit two hours. The work in this course consists of the study of a selected group of inorganic drugs and of certain crude organic drugs and their official preparations, and in making pharmaceutical preparations such as syrups, emulsions, spirits, liniments, tinctures, fluid extracts, extracts, ointments, pills, etc. In this study the student is required to write concise notes on the physiologic action of the drugs examined and to make tests of their incompatibility. 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 thoroughly emphasized. Five hours a week. Section I, T 1:40-4, S 10-12:30; Section II, T 10-12:30, Th 1:40-4. Professors MILKS and STEPHENSON. Laboratory fee, \$10.

22. **Diseases of Small Animals.** This course deals principally with canine and feline diseases. Two lectures or recitations throughout the first term of the third year. T Th 9. Professors MILKS and STEPHENSON. Prerequisites: Special Pathology 41 and 41a, and Physical Diagnosis 51.

22a. **Diseases of Small Animals.** Fourth year, first term. Credit two hours. M W 9. Professor MILKS. Prerequisites: Diseases of Small Animals 22.

23. **Recitations in Materia Medica and Therapeutics.** Third year, first term. Credit two hours. W F 9. Professors MILKS and STEPHENSON. Prerequisite: Pharmacology 20.

24. **Advanced Work.** This course will consist principally of laboratory exercises on the physiological action of drugs on animals and will be supplemented by collateral reading and reports. Five or more hours a week. Professors MILKS and STEPHENSON.

CLINIC FOR SMALL ANIMALS

In this clinic, dogs and cats form the majority of patients. The students have close supervision of the cases; they compound and administer medicines and assist in the surgical operations.

25. **Small Animal Clinic.** Credit one hour a term. Six actual hours a week throughout the third and fourth years. Daily. First and second terms, 10-12. Professors MILKS and STEPHENSON, and assistants.

26. **Elective.** Two hours a week. This will consist of advanced work in pharmacology or in diseases of the small animals. The choice will depend largely upon the interest of each student.

200. **Clinical and Laboratory Practice.** (See page 22.)

ANIMAL HUSBANDRY

1. **Livestock Production.** First term. Credit three hours. Lectures, W F 10. *Agricultural Economics* 25. One laboratory period, first year students, W 11-1. *Judging Pavilion.* Professors SAVAGE, HARRISON, and HINMAN, Assistant Professors SALISBURY and WILLMAN, and assistants. Laboratory fee, \$2.

Introduction to types, breeds, judging, and management of livestock.

10. **Livestock Feeding.** Second term. Credit three hours. Lectures, M W F 9. *Veterinary College.* Assistant Professor MILLER.

The feeding of farm animals, including the general basic principles, feeding standards, the computation of rations, and the composition and nutritive value of livestock feeds.

DAIRY INDUSTRY

IN THE COLLEGE OF AGRICULTURE

1. **Introductory Dairy Science.** Third year, second term. Credit three hours. Lectures and laboratory practice. T Th 11. Laboratory, W 1:40-4:30. *Dairy* 218. Assistant Professor HERRINGTON and Mr. HOLLAND. Laboratory fee, \$7.

102. **Market Milk and Milk Inspection.** Fourth year, second term. Credit five hours. Lectures and laboratory practice. T Th 1-6. *Dairy* 218. Professor ROSS and Professor AYRES. Laboratory fee, \$10.

EXPERIMENT STATION

Professors, R. R. BIRCH and H. L. GILMAN; Assistant Professor, D. W. BAKER; Instructor, W. S. STONE.

61. **Health and Diseases of Animals.** Arranged especially for students in the College of Agriculture. First term. Credit three hours. Not open to freshmen or to those who have had no courses in animal husbandry. Lectures, M W F 11. *Veterinary College.* Professor BIRCH.

The course is designed to give the student a clear conception of the causes and nature of the diseases of animals, with suggestions for their prevention. Special epizootic diseases. Such information as is practicable is given for the treatment of slight injuries and for first aid in emergencies.

62. Animal Parasitology. Third year, first term. Credit two hours. M W 12. Prerequisite courses: Pathology 40, 40a, and Zoology 1a.

This is an introductory course with a limited time allowance and as such endeavors to provide the student with a knowledge of fundamental facts and principles about animal parasitisms. Emphasis is given to the biological aspects of the subject such as the interrelations of host and parasite, the life cycle of the parasite, the epidemiological factors, and underlying principles of treatment and prevention rather than to nomenclature and morphology. The specific and detailed directions for the treatment of the principal parasitic diseases of domestic animals are given in the courses in Medicine and Small Animal Diseases and so needless repetition of such information is curtailed. The general principles of treatment which contribute to success or failure are thoroughly discussed. These principles include the manner in which drugs reach the parasites, the mechanism by which the death and removal of the parasite is accomplished and the specific reaction between certain parasites and certain drugs. A comprehensive study of the parasites of the horse, cow, sheep, goat, pig, dog, cat, and certain wild animals of economic importance is arranged on the basis of the parasitism of the host rather than by the more conventional system of zoological affinities.

62a. Parasites Laboratory. A companion course to 62 with the same prerequisites. Credit one hour. Section I, T 1:40-4; Section II, M 1:40-4. Laboratory fee, \$3. A study of the protozoal, helminth, and arthropod parasites of domestic animals. Parasitized animals will be used for the study of symptoms and therapeutics. External and internal parasites removed from these hosts will be used for anatomical examination. Post-mortem examinations of parasitized animals will be supplemented by microscopic examinations of prepared specimens. A study of technique includes the collection, preservation, staining, and mounting of specimens, and microscopic examination of blood smears, urine, and feces for presence of protozoa or helminth ova. Assistant Professor BAKER.

63. Advanced Work in Animal Parasitology. First and second terms. Credit one to three hours, by arrangement. Prerequisite courses 62 and 62a. For advanced undergraduate and graduate students. Special problems concerned with the parasites of domestic animals. Assistant Professor BAKER.

64. Elective. Students desiring to fit themselves for special work with Bang's disease can arrange for an elective with two credit hours. This will cover both semesters of the senior year. Professor GILMAN and Instructor STONE.

200. Clinical and Laboratory Practice. (See page 22.)

SURGERY

Professor, J. N. FROST; Assistant Professor, HENRY ASMUS; Instructor, A. G. DANKS.

The instruction consists of classroom and laboratory work designed to afford symmetrical training for practice.

THE CLASSROOM WORK

Course 30 in General Surgery, Course 40 in General Pathology, and Course 31 in Surgical Exercises together constitute a group designed to impart a general knowledge of the principles of surgery, surgical pathology and therapeutics, and operative technique.

Course 32, a total of eighty lectures and recitations, is devoted to the surgery of the various regions of the body.

The College possesses an extensive collection of surgical instruments and apparatus of home and foreign make, illustrating the history of veterinary surgery as indicated by the means employed in the cure of diseases. The College has acquired since its foundation an extensive pathological collection illustrative of surgical diseases, to which has been added from the surgical and obstetrical clinics a large amount of material of value for teaching purposes. Further important additions are made by veterinary practitioners. The surgical collection is especially rich in specimens illustrating the diseases of the teeth.

CLINICS AND LABORATORY WORK

The laboratory work in the Department of Surgery includes Surgical Exercises and Clinics. The course in surgical exercises comprises sixteen periods of three hours each, in which the student is required to perform all the important operations on horses and cattle. The animal for a given exercise is placed under general anaesthesia, which is maintained until the close of the period, when the subject is destroyed. The maintenance of chloroform anaesthesia for three consecutive hours gives the student valuable experience in the technique of general anaesthesia, for which there is a constantly increasing demand. Strict method is enforced in relation to asepsis and antisepsis, arrest of hemorrhage, suturing, and dressing, so that, while acquiring skill and knowledge of the appearance, resistance, and general character of living tissues, the student also forms proper habits in surgical procedure.

CLINICAL SURGERY OF THE LARGER ANIMALS

M W F, first and second terms. One year. Students in charge of cases are required to give necessary daily attention.

The surgical building has a thoroughly modern equipment in every respect. There is a spacious operating room fitted with operating table, stocks, and other conveniences, a commodious recovery room for chloroformed animals, and other accessory rooms for instruments, drugs, and other necessities. The entire structure is planned to secure the highest efficiency in aseptic and antiseptic surgery. Senior students assist regularly in the surgical operations.

General and local anaesthetics are regularly used in painful operations, and the student is taught to eliminate, as far as practicable, the element of pain in surgery. Instruments and apparatus of the most approved pattern are kept directly at hand in the operating room, and the student becomes familiar with their good and bad points by actual use.

Special apparatus for investigation is supplied as needed. Advanced students are called upon to assist in the various investigations, and thus become not only more familiar with surgical manipulations but also inspired to study methodically and effectively the many questions in surgical pathology and therapeutics. They also become better prepared to cope promptly and properly with the many atypical cases constantly occurring in general practice.

30. **General Surgery.** Third year, first term. Four recitations or laboratory periods a week. M 9; T Th 8; S 8-10:00. Dr. DANKS. Prerequisite courses are 1, 2, and 3 in Anatomy, Course 10 in Physiology, Course 6 in Histology.

31. **Surgical Exercises.** Three hours a week of laboratory work in surgical operations upon anaesthetized animals. Third year, first term. Section I, Th 1:40-4; Section II, T 1:40-4. Professor FROST and Dr. DANKS. Laboratory fee, \$20.

32. **Special Surgery.** Third year, second term. Five lectures or recitations a week. M T W Th F 9. Professor FROST.

34. **Consulting Clinic.** Six actual hours a week for four terms. Daily at 10-12. Professor FROST and Dr. DANKS.

35. **Jurisprudence, Ethics, and Business Methods.** One lecture a week. Fourth year, second term. F 9. This course is given chiefly by members of the legal and medical professions and by non-resident veterinarians.

36. **Horseshoeing.** Laboratory and lecture. Fourth year. First term: laboratory, Section I, T 2-4; Section II, Th 2-4. Prerequisite, Special Surgery 32. Second term: lecture, W 9. Prerequisite, first term's laboratory. Assistant Professor ASMUS.

37. **Horseshoeing Short Course.** Four weeks' training for farmers and farm boys who wish to gain sufficient knowledge to shoe their own horses. One course during the month of November and one during the month of January. Assistant Professor ASMUS.

200. **Clinical and Laboratory Practice.** (See page 22.)

MEDICINE AND OBSTETRICS

Professors, D. H. UDALL and M. G. FINCHER; *Assistant Professor*, W. J. GIBBONS; *Instructor*, S. D. JOHNSON; *Laboratory Assistant*, JEAN FERGUSON.

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 non-infectious maladies of the different systems of organs—digestive, respiratory, circulatory, urinary, cutaneous, and visual—of the various genera of domestic animals.

Our proximity to the city and to a well-stocked agricultural country tends to secure a greater variety of patients than can be had in a large city remote from country flocks and herds. Students take charge of individual cases in the hospital and ambulatory clinic and keep a record of each with treatment. The course also includes instruction in diagnosis. Through the medium of laboratory guides students are expected to acquire a methodical system of examination by repeated systematic observations on both normal and diseased animals. The work involves the use of various special diagnostic methods taught in other laboratories of the College, such as examination of the blood, urine, and feces, the application of sero-diagnostic methods, etc.

AMBULATORY CLINIC

An ambulatory or out-clinic is conducted for the purpose of giving instruction to students under conditions identical with those encountered in private practice. Proper conveyances and equipment are provided and an opportunity offered for observing such diseased farm and dairy animals as cannot be entered in the clinics of the College. The student thereby not only has an opportunity to see cases not readily brought to the college clinic, but also assists in handling cases in the same manner and under the same environment as is required of the country practitioner. As the vicinity of Ithaca is largely devoted to dairying, valuable clinical material relating to obstetrics and the diseases of dairy cows is available and is extensively used.

50. **Veterinary Medicine, Principles and Practice.** Lectures or recitations. Third year. First term, M W F 8; second term, T Th 8.

50a. **Veterinary Medicine, Principles and Practice.** Fourth year. First term, T Th 8; second term, M W F 8.

51. **Physical Diagnosis.** Two recitations or lectures a week. Second year. Second term. Credit two hours. M F 8.

53. **Ambulatory Clinic.** Throughout the senior year. Credit two hours each term. One hour a week is devoted to a review and discussion of the cases treated in the clinic. Recitations, first term, F 9; second term, M 9.

54. **Obstetrics, including Diseases of Genital Organs of Cattle, Sterility, Abortion.** Four lectures or recitations and one laboratory section a week in the first term of the fourth year. M W 8; T Th 9. Section I, Th 2-4; Section II, T 2-4. It is aimed in this course to give a general survey of the subject of obstetrics, and to include a thorough consideration of the diseases of the genital organs, including sterility and abortion. Obstetric exercises are given by appointment throughout the year. For this work a specially constructed apparatus or "phantom" is employed in such a manner as to closely simulate actual working conditions in obstetrical practice. Newborn calves are procured, killed, and so placed in the apparatus that the various corrections of position and embryotomic operations may be carried out by the student under the direction of the instructor in charge.

Clinical instruction in obstetrics is given in Course 53.

55. **Ophthalmology.** One lecture or recitation a week. Third year, second term. W 8.

56. **Hygiene.** One lecture or recitation a week. Fourth year, second term. T 8.

Special Lectures. During the year, lectures on special topics in medicine will be given by eminent practitioners and teachers of veterinary medicine. These will form a part of the instruction in this department.

Opportunities for Research. The activities of the department, aside from the instruction work, are devoted to research in connection with diseases of cattle, including the phenomena of sterility and abortion in animals of breeding age, and of diseases of newborn calves having intimate relation to the diseases of the genital organs of cows. Opportunity is afforded for participation in the investigations by graduate students having acceptable preparation.

PATHOLOGY AND BACTERIOLOGY

Professors, W. A. HAGAN, PETER OLAFSON; *Assistant Professors*, E. L. BRUNETT, ALEXANDER ZEISSIG, C. W. BARBER, K. F. HILBERT (at Farmingdale); *Instructors*, W. M. EVANS, P. P. LEVINE, W. S. MONLUX, C. I. ANGSTROM, F. D. MAURER, HERMAN TAX (at Farmingdale); *Assistant*, J. A. BAKER; *Student Assistant*, W. B. BELL.

The laboratories of the department are well equipped with modern apparatus providing opportunity for advanced work, for those students who are properly prepared, in pathological anatomy, autopsy work, pathogenic bacteriology, and immunity. The department operates two diagnostic laboratories, one for poultry diseases and the other for general diagnostic work, to which a great deal of pathological material and blood samples for serological testing come from all parts of the State. These laboratories furnish an abundance of fresh materials for teaching work and for research in animal diseases. The clinics and the routine autopsies also furnish material.

The following courses are required in the curriculum of the Veterinary College and are given particularly for veterinary students. When there is room for them, properly prepared students of other colleges will be admitted, but permission to register must be obtained in each case.

40. **General Pathology.** Second year, first term. Credit two hours. Prerequisite, course 6 (Microscopy and Histology) or equivalent. In addition it is desirable that the student shall have had at least one year's work in anatomy and physiology. In special cases of students who are majoring in biology and expect to take no further work in pathology, these prerequisites may be waived in part. When this is done, the course will not be accepted as a prerequisite for other courses. Recitations, T Th 8. Dr. OLAFSON.

40a. **General Pathology Laboratory.** Credit two hours. Course 40 must be taken simultaneously or have been completed previously. Section I, T 10-12:30; F 8-10:30. Section II, M 10-12:30; Th 10-12:30. Laboratory fee, \$5. Drs. OLAFSON and MONLUX.

41. **Special Pathology.** Second year, second term. W S 8. Credit two hours. Prerequisite course 40a. Dr. OLAFSON.

41a. **Special Pathology Laboratory.** Credit two hours. Course 41 must be taken simultaneously, or have been completed previously. Second year, second term. Section I, T Th 10-12:30. Section II, W 1:40-4; S 10-12:30. Laboratory fee, \$5. Drs. OLAFSON and MONLUX.

42. **Pathology of Infectious Diseases.** Fourth year, first term. Credit two hours. Prerequisites, courses 41 and 49. Recitations, T Th 12. Dr. HAGAN.

43. **General Bacteriology.** Second year, first term. Credit two hours. Lectures and recitations, M W 8. Dr. HAGAN.

43a. **General Bacteriology Laboratory.** Credit two hours. Open to students who have taken or are taking course 43 or its equivalent. Section I, M Th 10-12:30. Section II, T 10-12:30; S 8-10:30. Laboratory fee, \$10. Drs. ZEISSIG, MAURER, and BAKER.

46. **Diseases of Poultry.** Third year, second term. Credit two hours. Prerequisite, course 49a. T F 12. Dr. BRUNETT.

47. **Autopsies.** Throughout the third and fourth years. Daily 10-12. Credit one hour in fourth year. Drs. OLAFSON, BRUNETT, and ANGSTROM.

48. **Food Hygiene.** Third year, second term. Credit two hours. Prerequisites, courses 41 and 49. Lecture, M F 8. Dr. ZEISSIG.

49. **Pathogenic Bacteriology.** Credit two hours. Prerequisite, course 43, or its equivalent. Second year, second term. T Th 8. Dr. HAGAN.

49a. **Pathogenic Bacteriology Laboratory.** Credit three hours. Second year, second term. M W F 10-12:30. Laboratory fee, \$10. Dr. ZEISSIG.

NOTE: The following courses are not a part of the regular veterinary curriculum. Course 170 is given especially for students of poultry husbandry in the College of Agriculture. Course 149 is given to accompany Course 49 for those students who have had no work in pathological anatomy. The others are for graduate and advanced undergraduate students. Permission to register must be obtained by all students electing these courses.

149. **Pathogenic Bacteriology Laboratory.** Credit two hours. Students must have completed, or take simultaneously, course 49. T 1:40-4; Th 1:40-4. Laboratory fee, \$10. Drs. ZEISSIG, MAURER, and BAKER.

150. **Laboratory Methods of Diagnosis.** Credit one to three hours. Prerequisites, courses 41a and 49a or 149. Hours by appointment. Dr. EVANS.

Instruction and practice in the application of bacteriological, pathological, and serological methods for the diagnosis of disease.

151. **Immunological Methods.** First term. Credit two hours. Prerequisites, Courses 49 and 49a or 149. Class limited to twelve students. Two laboratory periods. T Th 1:40-4:00. Laboratory fee, \$10. Dr. ZEISSIG.

152. **Advanced Work in Pathology, Bacteriology, or Immunology.** First and second terms. Credit one to three hours. Hours to be arranged. Laboratory fee, \$2 a credit hour. Drs. HAGAN, OLAFSON, and ZEISSIG.

Properly prepared students may undertake special problems or receive special assignments.

153. **Hematology.** Second term. Credit one hour. One lecture and laboratory session a week. Th 1:40-4:00. Laboratory fee, \$2. Dr. OLAFSON.

154. **Seminar.** First and second terms. Hours to be arranged. No credit. Required of all graduate students. Undergraduate students are admitted.

170. **Poultry Hygiene and Disease.** First term. Credit two hours. Prerequisites: Animal Physiology (Veterinary 10), or Human Physiology (Arts 303) and Agricultural Bacteriology 3. Lectures, T Th 10. Dr. LEVINE. (Special course for students of poultry husbandry.)

200. **Clinical and Laboratory Practice.** (See page 22.)

MILITARY SCIENCE AND TACTICS

1. **Basic Course.** Required. Throughout the year. The complete course covers two years. Three hours a week, either M T W or Th, 1:40-4:10 P. M.

The course of training is that prescribed by the War Department for Senior Division Units of the Reserve Officers' Training Corps for basic students. Instruction is offered in Infantry and Field Artillery. For details concerning the course see the Announcement of the Department of Military Science and Tactics.

Required of all able bodied first year male students in the Veterinary College who are American citizens, and candidates for a baccalaureate degree. The requirements of Military Science and Tactics must be completed in the first terms of residence, otherwise the student will not be permitted to register again in the University without the consent of the faculty.

Advanced standing. With the approval of the Department of Military Science and Tactics, credit may be allowed a student for all or part of the Basic Course requirement, upon presentation of evidence of satisfactory work completed at an approved institution.

HYGIENE AND PREVENTIVE MEDICINE

All students in the first year of undergraduate courses are required to attend lecture-recitations on Hygiene and Preventive Medicine given once a week throughout the college year.

Entering students will be held for two hours of Hygiene and Preventive Medicine unless they present evidence of having satisfactorily completed an equivalent course previous to entering here.

1. **Hygiene (Required of all Freshmen).** One lecture-recitation each week with preliminary examination and final. The use of a textbook is required.

Registration and assignment to section: *for men*, first term at the Drill Hall, second term at the Old Armory; *for women*, first term at the Drill Hall, second term at the Sage Gymnasium.

Sections for men:

Professor SMILEY, Assistant Professors DEYOE, GOULD, SHOWACRE, and Instructors.

Sections for women:

Assistant Professors EVANS and CUYKENDALL, and Dr. STELLE.

2. **Hygiene (Required of all Freshmen).** One lecture or recitation each week with preliminary examination and final. The use of a textbook is required.

Registration and assignment to section: *for men*, first term at the Drill Hall, second term at the Old Armory; *for women*, first term at the Drill Hall, second term at the Sage Gymnasium.

APPENDIX A

OPENINGS FOR VETERINARIANS IN AMERICA

1. In the Medical Department of the United States Army there is a demand for a limited number of veterinarians. Beginning with the rank of First Lieutenant, the veterinarian earns promotion after certain periods of service and examination. The initial salary is \$2,000 per year, with quarters and a subsistence allowance of \$1.20 a day.

2. In the Bureau of Animal Industry, United States Department of Agriculture, a number of veterinarians are employed professionally as livestock agents and inspectors, inspectors and superintendents of quarantine stations, and investigators in bacteriology and pathology. By an act of Congress, the federal veterinary inspectors must be graduates of a veterinary college maintaining the requirements of the Bureau. Applicants for the position must take a civil service examination. The initial salary is \$2,000 a year.

3. In the different states there are appointive positions as State Veterinarian, and in some states as County or District Veterinarian. These are desirable positions and involve considerable responsibility.

4. 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.

5. Veterinarians are needed to serve on tuberculosis and other commissions in order that the work in this field may be conducted intelligently and successfully along scientific lines. The control of disease depends largely upon those specially trained in the anatomy, physiology, hygiene, and pathology of the lower animals.

6. Educators in comparative pathology are wanted in agricultural and veterinary colleges and experiment stations, and must soon be in demand by every medical college that aims to keep abreast of the times.

7. 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 thirteen 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 recovery of stock values and the increase in the number of farm animals.

APPENDIX B

LEGAL REQUIREMENTS TO PRACTICE VETERINARY MEDICINE IN THE STATE OF NEW YORK

EXTRACTS FROM THE EDUCATION LAW, ARTICLE 50

§1326. *Qualifications for practice.* No person shall practice veterinary medicine after July first, eighteen hundred and ninety-five, unless previously registered and legally authorized, unless licensed by the department and registered as required by this article; nor shall any person practice veterinary medicine who has ever been convicted of a felony by any court, or whose authority to practice is suspended or revoked by the department on recommendation of the state board.

§1331. *Admission to examination.* The department shall admit to examination 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 prior to beginning the first year of veterinary medical study the preliminary general education required by the rules of the department; (fourth) has completed not less than four satisfactory courses in four different academic years, in a veterinary medical school registered as maintaining at the time a standard satisfactory to the department; (fifth) has received a veterinary degree from a veterinary medical school registered as

maintaining at the time a standard satisfactory to the department. The department may accept as the equivalent of any part of the third and fourth requirement, evidence of five or more years' reputable practice in veterinary medicine, and as the equivalent of any part of the fourth requirement the completion of courses of study in another institution that have been accepted by such registered veterinary medical school for credit towards its degree. The department may admit to the examination graduates of duly incorporated veterinary schools, who matriculated in such schools prior to nineteen hundred and fifteen, provided such graduates are now and have been for at least five years, residents of the state.

§1333. *Examinations and reports.* Examination for license shall be given in at least four convenient places in this state and not less than twice annually, in accordance with the department rules, and shall be exclusively in writing and in English. Each examination shall be conducted by a department examiner, who shall not be one of the veterinary medical examiners. At the close of each examination, the department 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 department 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 department. If a candidate fails on his first examination, he may have a second examination without fee.

§1334. *Licenses.* On receiving from the state board an official report that an applicant has successfully passed the examination and is recommended for license, the department shall issue to him, if in their judgment he is duly qualified therefor, a license to practice veterinary medicine. Every license shall be issued by the department under seal and shall be signed by each acting veterinary medical examiner of the board and by the officer of the department who approved the credential which admitted the candidate to examination, and shall state that the licensee has given satisfactory evidence of fitness as to age, character, preliminary and veterinary medical education and all other matters required by law, and that after full examination he has been found duly qualified to practice. Applicants examined and licensed before July first, eighteen hundred and ninety-seven, by other state examining boards registered by the regents as maintaining standards not lower than those provided by this article, and applicants who matriculated in a New York state veterinary medical school before July first, eighteen hundred and ninety-six, and who received the veterinarian degree from a registered veterinary medical school before July first, eighteen hundred and ninety-seven, may without further examination, on payment of ten dollars to the department, and on submitting such evidence as they may require, receive from it an endorsement of their licenses or diplomas conferring all rights and privileges of a department license issued after examination. And any veterinary practitioner in any county of this state who was registered in the county clerk's office between July first, eighteen hundred and ninety-five, and July first, nineteen hundred and fifteen, or any commissioned veterinary medical officer heretofore serving in the United States army or an allied army in the world war, or so commissioned and honorably discharged therefrom, and who was a citizen and resident of this state at the time of entering such service or on April twenty-fourth, nineteen hundred and twenty-four, or becomes a resident within one year thereafter, may, upon satisfactory evidence of such registration or discharge and of qualification to practise either with or without examination as the department may direct on the recommendation of the board of veterinary medical examiners, and upon written application, receive from the department a certificate of facts which may be registered in the office of the county clerk where such practitioner was registered, or where such discharged commissioned officer intends to practice, and the registration of such certificate shall constitute a lawful registration under the provisions of this article and shall operate to confer all the rights and privileges of a department license issued after examination. Before any license is issued it shall be num-

bered and recorded in a book kept in the office of the department 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.

§1335. *Registry.* Every license to practice 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 his license to practice. 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 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 order that such license should be conferred, and shall annually in the month of January report, under oath, to the state board of examiners, any facts required by the board, shall pay to the department a registration fee of one dollar, and shall receive a certificate of registration that must be conspicuously displayed together with the original certificate of registration. Every license, or if lost, a copy thereof legally certified so as to be admissible as 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 department, shall indorse or stamp on it the date and his name preceded by the words, "Registered as authority to practice 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 a total fee of one dollar for registration, affidavit and certificate.

CATALOGUE OF STUDENTS

GRADUATE STUDENTS

- Angstrom, Clement Ignatius, *Stratford, Iowa.*
 Batt, Henry Thomas, *Guelph, Ontario, Canada.*
 Cordy, Donald R., *Los Angeles, California.*
 Maurer, Fred D., *Pullman, Washington.*
 Miller, Malcolm Eugene, *Ithaca.*
 Monlux, William Seastream, *Algona, Iowa.*
 Scrivner, Lloyd Herbert, *Laramie, Wyoming.*
 Stone, Winfield Scott, *Binghamton.*
 Suebsang, Charas, *Bangkok, Siam.*

SENIORS, CLASS OF 1939

- Ayres, John Patrick, *Corbettsville.*
 Badgley, Francis Roy, *Farmingdale.*
 Beckley, Elizabeth Garnett, *Buffalo.*
 Bell, Wilson Bryan, *Iver, Va.*
 Bent, Clarence Farrar, *Hudson, N. H.*
 Birch, Frank McKeeman, *Ithaca.*
 Boldt, Vincent Leo, *Marilla.*
 Bridgeman, Richard Judson, *Ithaca.*
 Christian, Arthur Booth, *Elmira.*
 Combs, Clarence Carl, *Lakewood, N. J.*
 Crandall, Mark Robert, *Stillwater.*
 Dorney, George Thomas, *Ithaca.*
 Erdheim, Morris, *Brooklyn.*
 Faatz, Gerald Almon, *Woodsport.*
 Fagan, Raymond, *Brooklyn.*
 Fallon, Walter Joseph, *Constable.*
 Ferber, Robert, *Flushing.*
 Frohlich, Rudolph, *New York City.*
 Halloran, John Lewis, *Stapleton.*
 Holmes, John Mansfield, *Sawyer ville.*
 Hoy, Lyman Lester, *Deer River.*
 Kwong, Francis Jung-lu, *Taisun, Kwangtung, China.*
 Lasher, Norbert Augustus, *Minona.*
 McCarthy, James Joseph, *Lowville.*
 Martin, Sidney Matthew, *Chateaugay.*
 Michaels, Albert, *Arverne.*
 Murray, John Delaney, *Elkland, Pa.*
 Nadler, Harold Edwin, *Homer.*
 O'Connor, Patricia Gwendolyn, *Buf-falo.*
 Pontick, Albert Paul, *East Setauket.*
 Potter, Lyndon Wainwright, *Windham.*
 Povar, Ralph, *Brooklyn.*
 Rankin, Alexander Donald, *Batavia.*
 Sasmore, Daniel Paul, *New York City.*
 Skelton, Daniel, *New York City.*
 Spiegel, Milton, *Ithaca.*
 Sprecher, Isidor Israel, *Brooklyn.*
 Sunderville, Edwin Joseph, *Ithaca.*
 von Decken-Luers, Miss Rikki, *New York City.*
 Wood, Donald Adelbert, *Stockton.*

JUNIORS, CLASS OF 1940

- Alberding, Milton Stephen, *Oriskany Falls.*
 Alfson, George Robert, *Sherburne.*
 Allen, Theodore, *New York City.*
 Ashman, Robert Irving, *Monroe.*
 Baker, James Andrew, *Ithaca.*
 Bergerson, John Russell, *Perry.*
 Borchmann, Helen Marie, *Great Neck.*
 Boynton, James Webster, *Worcester.*
 Chickering, Emily Gordon, *Lancaster, Mass.*
 Combs, (Mrs.) Clarence Carl, *Lake-wood, N. J.*
 Favata, Anthony Frederic, *Dunkirk.*
 Gangarosa, Ralph Louis, *Rochester.*
 Gifford, Rebecca, *Pittsfield, Mass.*
 Grotenstein, Harold, *Brooklyn.*
 Guile, Harlan Switzer, *Rochester.*
 Jordan, Clarence Arthur, *Troy.*
 Kahl, Paul, *Jamaica.*
 Kelsey, Carleton Richard, *Alpine.*
 Kopp, Moe, *Woodridge.*
 Leonard, Edwin, *Staten Island.*
 Lombard, Ferdinand Anthony, *Fort Plain.*
 Loomis, Ralph Eugene, *Williamsport, Pa.*
 McBride, Garry V., *Slingerlands.*
 McClelland, Frank Edwin, jr., *Ken-more.*
 Mayer, Karl, *Buffalo.*
 Oppenheimer, Russell Braun, *Brook-lyn.*
 Paciello, Vincent Xavier, jr., *Queens Village.*
 Patashnick, Jerome, *Woodridge.*
 Potter, Carleton Wilburn, *Truxton.*
 Richtscheid, George, *Edmeston.*
 Rosen, Bernard William, *Far Rock-away.*

Sawyer, John Edwin, *Canton*.
 Shear, Herbert, *Bayside*.
 Skinner, Norman Ely, *Fort Ann*.
 Sullivan, George Joseph, *Lawrence, Mass.*
 Thompsett, Robert Evan, *Delevan*.

Vogel, Abraham, *New York City*.
 White, Lee R., *Cortland*.
 Wingerter, Emery George, *Red Bank, N. J.*
 Wiswall, Roscoe George, *Ballston Spa*.
 Witter, Ralph Edward, *Ithaca*.

SOPHOMORES, CLASS OF 1941

Ackerman, Anthony Joseph, *Long Island City*.
 Bendusky, Samuel, *Nassau*.
 Britton, John Wanzer, *Oakland, Calif.*
 Bryan, Donald Irving, *Washingtonville*.
 Charles, Arthur Sheldon, *Brooklyn*.
 Conner, Alexander, *Avoca*.
 Dean, Donald Joseph, *Scotia*.
 Earl, Alfred Ellsworth, *Morristown, N. J.*
 Everly, William Parkinson, *Manlius*.
 Fales, Roger Richard, *Derby*.
 Ferris, Joseph, *Portland Point*.
 Fobian, Vernon Christian, *Ballston Lake*.
 Guglielmino, Angelo José, *Brooklyn*.
 Harmon, Karl Storer, *Springvale, Maine*.
 Helsel, Harry Joseph, *Syracuse*.
 Horowitz, Nathan, *Brooklyn*.
 Linden, Benjamin, *New York City*.
 McKinney, George Voorheis, *Spencerport*.

Maxwell, Henry, *Albany*.
 Meisels, Morton, *Brooklyn*.
 Mick, Louis William, *Peterboro*.
 Milks, Richard Vose, *Ithaca*.
 Papish, Philip George, *Ithaca*.
 Peppe, Vincent John, *Pine Plains*.
 Polansky, Henry, *New York City*.
 Rice, Alvin Whitney, *Ithaca*.
 Risley, Henry Brainard, *Brooklyn*.
 Sheridan, Gerald Haynes, *Cortland*.
 Simmons, Eric Whiting, *Watertown, Mass.*
 Siver, Dougal Harvey, *Watertown*.
 Snyder, Leon Donald, *Cortland*.
 Spanier, Seymour Edward, *New York City*.
 Steinfeldt, Edward Frederick, *Rochester*.
 Sylstra, Anthony, *Midland Park, N. J.*
 Tucker, Edgar Wesley, *Port Jervis*.
 Udall, Robert Hovey, *Ithaca*.
 Woodruff, Raymond Arthur, *Albion*.
 Wright, Frederick, *Rhinebeck*.

FRESHMEN, CLASS OF 1942

Armstrong, James, *Fullers*.
 Baxter, Clinton M., *Union*.
 Blostein, Leon E., *Ithaca*.
 Comin, Ralph, *Richmond Hill*.
 Fitchett, Alson M., *Poughkeepsie*.
 Fraser, Gordon S., *Chazy*.
 Gilmour, Judd T., *Mt. Vernon*.
 Haller, Christian J., *Ithaca*.
 Handler, Paul, *Brooklyn*.
 Jones, Arthur J., *Remsen*.
 Kane, Joseph R., *Johnstown*.
 Kinney, Grace E., *Auburn*.
 Kopp, Harold, *Woodridge*.
 Lasher, Hiram N., *Catskill*.
 Leahy, Charles R., *Whitney Point*.
 Leveson, Lawrence, *Buffalo*.
 Mackerley, Jean, *Newton, N. J.*
 Martin, Ansel R., *Clarence*.
 May, Robert E., *Webster Crossing*.
 Mick, Lester H., *Peterboro*.
 Morse, Guy E., *Marathon*.
 Muskus, Claudio E., *Caracas, Venezuela*.

Newton, Wright I., *Cohoes*.
 Peterson, Elwin H., *Madison, Wis.*
 Phelps, Harold C., *Watkins Glen*.
 Proctor, Delano L., jr., *Lexington, Ky.*
 Pulling, Fred B., jr., *Lagrangeville*.
 Rieber, Jesse P., *New York City*.
 Rubenstein, Abraham M., *New York City*.
 Sann, Benjamin, *New York City*.
 Saunders, Richard, *Clarence*.
 Scheffler, Harold G., *Williamsville*.
 Schwobel, Wilbur P., *Jamaica*.
 Smith, Merwin G., *Syracuse*.
 Smith, Robert D., *Bristol, Vt.*
 Solnitz, Gerhard S., *Bryn Mawr, Pa.*
 Steed, Donald J., *Johnson City*.
 Ucko, Peter W., *New York City*.
 Vedder, Charles D., jr., *Fonda*.
 Wager, Leslie A., *King Ferry*.
 Weiss, Leonard, *Jamaica*.
 White, Howard S., *North Tarrytown*.
 Wuori, Leo A., *Westbury*.

PRACTITIONERS COURSE

Loyal K. Flower, Ralph Benedict, W. A. Deppa, F. M. McConnell, A. B. Sexmith, C. C. Dauber, J. L. Boydston, B. Hyman, W. M. Crall, William Van Zoren, H. O. Elliot, C. C. Petty, C. R. Young, F. C. Pritchard, T. L. Bott, and F. W. Main, all from Michigan; and E. C. Chapin from Indiana.

SUMMARY

Graduate students, 9; seniors, 40; juniors, 41; sophomores, 38; freshmen, 43; practitioners, 17; Total, 188.