

# VETERINARY MEDICINE PROFESSIONAL CURRICULUM (VTMED)

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## **VTMED 5100 - The Animal Body (Foundation Course I) (13 Credits)**

Designed to enable students to understand the principles of veterinary anatomy at the gross, microscopic, and ultrastructural levels.

Emphasizes developmental anatomy to the extent that it reflects determination of adult form and species differences. Radiologic and related imaging techniques are used throughout the course to assist in the understanding of normal structural anatomy. Understanding of the anatomic basis of common surgical procedures is achieved during the various dissection procedures. The course is based on tutorials with significant emphasis on practical laboratories. Lectures and modules complement student learning.

**Enrollment Information:** Enrollment limited to: first- year veterinary students.

**Course Fee:** Course Fee, \$75. Course guide.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes

## **VTMED 5200 - Cell Biology and Genetics (Foundation Course II) (7 Credits)**

Designed to develop an appreciation of the molecular and cellular basis of animal health and disease. Students gain an understanding of the molecular mechanisms that regulate cell function, the molecular signaling processes that form the basis of integrated function and the response to disease, and the mechanisms underlying inherited traits and genetic disease. Emphasis is placed on defining and characterizing normal cell function and on understanding how mutations in specific genes promote disease. The course will be divided into three complementary sections: Principles of Cell Biology and Medical Genetics, Principles of Cell Signaling, and a Focus on the Cell Biology of Cancer. Materials covered early in the course will form the foundation for later discussion. Throughout the course, clinical cases are utilized to illustrate the concepts presented.

**Prerequisites:** VTMED 5100.

**Enrollment Information:** Enrollment limited to: first- year veterinary students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes

## **VTMED 5220 - Neuroanatomy (2 Credits)**

This course introduces students to the anatomy and clinically relevant functioning of the nervous system, with an emphasis on the central nervous system. Students begin by studying the gross anatomy of the brain, spinal cord, cranial cavity and vertebral canal including the meninges and vasculature associated with the CNS. Clinical applications in anesthesia and radiology, such as epidural anesthesia, myelography and MRI are covered. As the course progresses, students learn how the nervous system functions in various contexts including spinal and cranial nerve reflexes, autonomic regulation, somatosensory and visual pathways and motor control. Clinical applications covered include anatomical localization of nervous system lesions based on neurological exam findings and the effects of pain and stress on aspects of physiology via CNS pathways.

**Enrollment Information:** Enrollment limited to: first- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

## **VTMED 5300 - Function and Dysfunction: Part I (Foundation Course IIIa) (9 Credits)**

Designed to develop students' understanding of how an animal maintains itself as a functional organism; how the maintenance of function is achieved through the integration of different organ systems; how tissue structure relates to tissue function; how injury alters structure and leads to dysfunction, manifested as clinical signs; how organ function can be assessed; and how organ function can be modulated pharmacologically. The course incorporates aspects of physiology, biochemistry, cell biology, histology, pathology and histopathology, clinical pathology and pharmacology.

**Prerequisites:** VTMED 5200.

**Enrollment Information:** Enrollment limited to: first- year veterinary students.

**Course Fee:** Course Fee, \$15. Cost of materials.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

## **VTMED 5310 - Function and Dysfunction: Part II (Foundation Course IIIb) (7 Credits)**

Continuation of VTMED 5300.

**Prerequisites:** VTMED 5300.

**Enrollment Information:** Enrollment limited to: second- year veterinary students.

**Course Fee:** Course Fee, \$10. Cost of materials.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes

**VTMED 5400 - Host, Agent, and Defense (Foundation Course IV) (12 Credits)**

This course seeks to develop an understanding of the interplay between the Immunological system of the host and the most significant bacterial and viral agents that cause disease in animals. Lectures focus primarily on adaptive and innate immunity, as well as bacterial and viral pathogens and the diseases they cause. Autoimmunity, epidemiological methods to investigate infectious disease at the herd and single animal levels, and techniques and tools to control infectious disease are also important components of the course. In the laboratory, animals are used to illustrate some aspects of infectious diseases.

**Prerequisites:** VTMED 5310.

**Enrollment Information:** Enrollment limited to: second- year veterinary students.

**Course Fee:** Course Fee, \$20. Course guide.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021  
Schedule of Classes

**VTMED 5410 - Veterinary Parasitology (2.5 Credits)**

Provides a basic introduction to animal parasites of veterinary importance, concentrating mainly on the biology, control, and diagnosis of protozoan and metazoan parasites. Emphasizes parasites representative of significant disease processes or of significant clinical importance to veterinarians. Elaborates on the biology and pathogenesis of these major pathogens with the ultimate goal being to maximize the recognition of the major disease manifestations induced by the different groups of organisms. Laboratories stress certain aspects of some important parasite groups.

**Enrollment Information:** Enrollment limited to: second-year veterinary students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021  
Schedule of Classes

**VTMED 5500 - Animal Health and Disease: Part I (Foundation Course V) (14 Credits)**

Commencing with sections on Clinical Pathology and Fluid and Electrolyte Disorders, the course progresses to dermatology, cardiology, ophthalmology, respiratory, infectious diseases, neurology, population medicine, musculoskeletal disorders, and wildlife, and a surgical skills laboratory, with relevant aspects of applied pharmacology included in some sections. The course is presented on a system - oriented basis, focusing on clinical signs of alteration in function, pathophysiology of clinical signs, and strategies for diagnosis and treatment of the most important veterinary diseases. This course provides a sound foundation for clinical rotations in Foundation Course VI.

**Prerequisites:** VTMED 5400.

**Enrollment Information:** Enrollment limited to: second- year veterinary students.

**Course Fee:** Course Fee, TBA. Course guide.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022  
Schedule of Classes

**VTMED 5510 - Animal Health and Disease: Part II (20 Credits)**

Continuation of VTMED 5500 topics include endocrinology, hematology, anesthesia, surgery, urology, dentistry, gastrointestinal diseases, liver diseases, theriogenology, oncology, exotics, miscellaneous, emergency and critical care, primary care.

**Prerequisites:** VTMED 5500.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021  
Schedule of Classes

**VTMED 5520 - Diagnostic Imaging (2 Credits)**

Diagnostic imaging is an essential part of veterinary medicine; it takes part in many elective and emergency procedures as well as in diagnostic and management of patient's care. While multiple imaging modalities are used, radiography and ultrasonography are performed most often and therefore the focus of this course. Advance imaging techniques, however, are incorporated into some topics. General practitioners perform and initially interpret most veterinary imaging studies. Therefore, the goal of this course is to prepare students for the level of a graduating veterinarian, not a specialty-trained radiologist. This 8-week course consists of weekly lectures (2-4 hours), labs (0-2 sessions), and reading assignments. These activities will include large and small animal imaging and are designed to optimize student's development of pattern recognition, retention of material, and ability to correctly interpret imaging findings considering clinical presentation and application to patient care.

**Prerequisites:** VTMED 5510.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022  
Schedule of Classes

**VTMED 5600 - Ambulatory and Production Medicine (2 Credits)**

Clinical service rotation in which students accompany ambulatory clinicians on farm and stable calls and learn the skills and procedures necessary for operation of a modern veterinary practice offering primary care to large animal clients. Routine herd health visits are conducted for cattle, horses, sheep, goats, and swine. Reproductive evaluations (including pregnancy and fertility examinations), nutritional evaluation, and disease prevention are stressed. Herd health programs also include vaccinations, parasite control, mastitis prevention, and routine procedures. With appropriate herds, analysis of computerized performance data is conducted and discussed with the owner. In addition to assisting with routine scheduled work, students participate in diagnosis and medical or surgical treatment of ill or injured animals. This includes rotating assignments for night and weekend duty.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024  
Schedule of Classes

**VTMED 5601 - Small Animal Community Practice (2 Credits)**

Our community practice, housed in a stand-alone facility as of June 2018, offers full services for our patients of all life stages including preventive medicine, radiology, dentistry, and surgery. Our primary care practice is designed to provide our clinical year students with experience in appointments, procedures, surgery, client communications, and cloud-based electronic medical records to prepare them as entry level veterinarians upon graduation from the CUCVM. The goals and design of the Small Animal Community Practice are to model a non-academic general practice setting where students act as primary case clinicians collecting histories, performing physical exams, assessing their patients, and creating diagnostic and therapeutic plans individualized to a given patient and client. Student clinicians are supervised by rotation faculty and supported by licensed veterinary technicians.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024  
Schedule of Classes

**VTMED 5602 - Small Animal Medicine (2 Credits)**

Structured to provide supervised clinical experience in the practice of small animal medicine. The course is conducted in the Companion Animal Hospital of the Cornell University Hospital for Animals. Students interact directly with clients presenting their pets for primary or referral medical care. Under the supervision of the clinical faculty and staff, the students are expected to formulate and carry out plans for the diagnostic evaluation and medical management of these patients.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5603 - Small Animal Soft Tissue Surgery Service (2 Credits)**

Clinical service rotation that exposes the student to the practice of soft tissue surgery within the companion animal hospital. Students participate in morning and evening patient rounds, appointments, clinical decision making (diagnostics, medical and surgical interventions), and daily patient care under the direction of the faculty and house officers of the surgery service. Students are afforded the opportunity to assist and observe in the operating room. Patient care, client communication, goal-oriented decision making, and an introduction to abdominal surgery are emphasized.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5604 - Large Animal Medicine Service (2 Credits)**

Students participate with the faculty, technicians, and residents of the Large Animal Medicine service in the diagnosis and care of patients. The goal of this course is for students to acquire knowledge and skills in history taking, physical examination, selection and completion of appropriate ancillary tests, diagnosis, treatment plan, and patient care.

Daily rounds, medical records/SOAPs and discussions are used to monitor patient progress and further educate students. If time allows, hands-on examinations (ultrasound exams, cardiac auscultation, etc) will be prioritized over sit-down rounds to discuss medical disorders (as classroom learning was the focus in years 1-3 of the vet program).

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5605 - Large Animal Surgery (2 Credits)**

Clinical rotation structured to provide supervised clinical experience in the practice of large animal surgery. Under the direction of faculty and house staff, students participate in the diagnosis, surgical treatment, and care of patients presented to the Equine and Farm Animal Hospital. Training through patient care is supplemented by formal rounds and didactic instruction.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5606 - Anesthesiology Service (2 Credits)**

The course is designed to provide clinical experience in the use of anesthetics in small companion animals, horses, and farm animals. Students participate in selecting suitable anesthetic techniques for patients in the Cornell University Hospital for Animals and then implement those techniques under the supervision of faculty and residents. The objective is for students to acquire the knowledge and skills necessary to provide safe anesthesia and perioperative analgesia in a modern veterinary practice. Students planning to enter equine, production, or mixed animal practice who elect to take this rotation a second time can choose to spend it exclusively in the Equine and Nemo Farm Animal Hospitals.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5607 - Dermatology Service (2 Credits)**

During this clinical rotation, students participate in diagnosing and managing skin disorders in small and large animals. Patients are examined by appointment and through consultation with other hospital services. Mandatory rounds are conducted in person or through video conferencing as determined by the rotation's service chief. Asynchronous casework and cytology assignments are expected, as is outside reading. Quizzes may be given at the discretion of the service chief to assess dermatology knowledge and progress.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5608 - Ophthalmology Service (2 Credits)**

A large inpatient and outpatient referral case load plus numerous inpatient consultations for other hospital services allow students to become confident acquiring the beginning skills needed for diagnostic ophthalmology. Students perform many routine ophthalmic diagnostic tests (Schirmer tear testing, fluorescein staining, tonometry) and learn and gain confidence using indirect ophthalmoscopes, slit lamps, and tonometers. Students are introduced to other ocular diagnostic tests, including culture, cytology, ultrasound, as well as more advanced diagnostic modalities according to the caseload. The rotation provides students an opportunity to observe common and uncommon therapeutic and surgical procedures. Many of the ophthalmology cases are complex referral cases but adequate routine case material is presented to prepare students for the common eye problems seen in veterinary practice. A competent ocular examination is the goal of this rotation.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5609 - Pathology Service (2 Credits)**

The pathology rotation strives to integrate gross pathology with other diagnostic modalities. Students will performing necropsies on mammals, birds, exotic species, and laboratory animals under the guidance of anatomic pathology faculty and residents. Students will prepare written reports of the necropsies performed and discuss the findings at daily morning rounds. Students will also be instructed by faculty of the Animal Health Diagnostic Center with expertise in ancillary diagnostic techniques. Students are expected to learn to use diagnostic testing regimens as integral parts of comprehensive diagnostic and therapeutic plans. Instruction will consist primarily of the discussion of clinical cases with emphasis on laboratory diagnostics. Students are expected to lead and participate in these discussions and will be evaluated on their ability to do so. Students will also present cases at the weekly gross pathology rounds at the end of each week (Fridays at noon).

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5610 - Radiology Service (2 Credits)**

A two-week clinical experience in the imaging section of the Cornell University Hospital for Animals. Students use radiographic, ultrasonographic, CT, MRI, and nuclear medicine imaging techniques to evaluate animal patients under treatment in the Cornell University Hospital for Animals. Students obtain and interpret radiographic and ultrasonographic studies with guidance from radiology faculty, residents and technical staff. On-line teaching materials are used to familiarize students with radiographic and cross-sectional imaging examples of common diseases of large and small animal species. Small-group discussions are included to present and discuss the teaching files and current cases, in addition to the safe use of x-ray producing equipment.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5611 - Small Animal Clinical Emergency and Critical Care Medicine (2 Credits)**

Management of both emergent and critical cases represents a significant component of the practice of veterinary medicine. The focus of this clinical rotation will be the development of a knowledge base and a comprehensive set of skills necessary for a veterinarian to perform adequately in these areas, within a structured format. These skills will include the appropriate evaluation (triage) and stabilization of emergency patients, the management of post-operative and other critical patients, and sensitive and effective client communication. Participants access relevant information from various sources related to emergency and critical care medicine and understand and apply these principles to clinical cases. Students will participate in the management of incoming emergency cases as well as having primary patient care responsibilities in both intensive care and intermediate care units. Students will work closely with interns, residents, technicians, and faculty on the Emergency & Critical Care Service to become familiar with technical and nursing procedures as well as to develop clinical skills and a systematic approach to clinical cases.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5612 - Fourth-Year Seminar (1 Credit)**

This required course gives each senior student the responsibility and opportunity of selecting and studying a disease entity on the basis of a case or series of cases, or to conduct a short-term, clinically oriented research project under the direction of a faculty member. In either instance, an oral report will be presented at a weekly seminar. A written report is also submitted within 2 weeks after the seminar. All participants are encouraged to foster an atmosphere in which discussion, exchange of ideas, and the airing of controversial opinions might flourish. Veterinary students of all four classes and all faculty and staff members are also invited and encouraged to attend.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Fall 2024, Spring 2024, Fall 2023

Schedule of Classes

**VTMED 5613 - Small Animal Surgery Orthopedic Surgery Service (2 Credits)**

Clinical service rotation that exposes the student to the practice of orthopedic surgery and medicine within a hospital environment. Students participate in rounds; diagnostic techniques; planning of therapy; and daily care of dogs and cats under the direction of an intern, surgical residents, and/or faculty. Students assist experienced surgeons in the operating room. Client communications and the basics of orthopedics in general practice are emphasized. Students are expected to be able to successfully perform an orthopedic examination and localize the lameness by the end of the rotation.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 5701 - Veterinary Practice I (1.5 Credits)**

This Foundation Course complements and augments material learned in VTMED 5100 (Foundation Course I, The Animal Body). Students participate in practical laboratories in which they learn and practice safe, effective, low-stress animal handling and core physical exam skills, including observation, auscultation and palpation, working with dogs, cats, cows, and horses. Students will also learn and practice basic surgical principles and skills.

**Enrollment Information:** Enrollment limited to: first- year veterinary students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021  
Schedule of Classes

**VTMED 5702 - Veterinary Practice: Ethics and Animal Care (Foundation Course VIIb) (1.5 Credits)**

Consists of lectures, small group discussion sessions, surgical skills and PE labs. Lectures average 2 hours each week, covering a variety of topics with some ethical dimension of importance to professional veterinarians. Students participate in two small group discussion sessions in which they discuss topics of interest and work through provided scenarios. In addition, each student completes a research and writing assignment on a topic of their choice. Consists of lectures, small group discussion sessions, surgical skills and PE labs. Lectures average 2 hours each week, covering a variety of topics with some ethical dimension of importance to professional veterinarians. Students participate in small group discussion sessions in which they discuss topics of interest and work through provided scenarios. In addition, each student completes a research and writing assignment on a topic of their choice.

**Prerequisites:** VTMED 5701.

**Enrollment Information:** Enrollment limited to: first- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022  
Schedule of Classes

**VTMED 5703 - Veterinary Practice II (1 Credit)**

This Foundation Course builds on the knowledge and skills related to safety, handling and physical exam in dogs, cats, horses and cows, and surgical skills learned and practiced in VTMED 5701 (Foundation Course VIIa) and VTMED 5702 (Foundation Course VIIb). In addition, students are introduced to and have the opportunity to practice new basic clinical skills and surgical skills. The course also includes learning experiences that support the development of professional competencies, especially communication skills. Subsequent sections of Foundation Course VII will build on the foundation of physical exam, clinical skills, surgical skills and professional competencies provided in this course. In addition, the knowledge and skills learned, practiced and reinforced in this course will help students take full advantage of extra-curricular clinical opportunities during the academic year and breaks.

**Prerequisites:** VTMED 5702.

**Enrollment Information:** Enrollment limited to: first- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022  
Schedule of Classes

**VTMED 5704 - Veterinary Practice III (1 Credit)**

This Foundation Course continues to build on the core physical exam, clinical and surgical skills learned and practiced in previous sections of Foundation Course VII. The course also continues to support the development of professional competencies, primarily through small group communication exercises using case scenarios and simulated clients.

**Prerequisites:** VTMED 5703.

**Enrollment Information:** Enrollment limited to: second- year veterinary students.

**Course Fee:** Course Fee, TBA. Course guide.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021  
Schedule of Classes

**VTMED 5705 - Veterinary Practice: Public Health (Foundation Course VIIe) (1.5 Credits)**

Veterinary training and expertise places veterinarians at the interface between humans and animals, making you an advocate for both. Our professional oath reminds us of this duality with inclusion of the phrase, for the benefit of society. This course will provide an overview of the veterinarian's broad public health role and provide the knowledge and skills necessary to prevent zoonotic diseases, maintain a safe food supply, preserve antimicrobial effectiveness, and promote One Health.

**Prerequisites:** VTMED 5704.

**Enrollment Information:** Enrollment limited to: second- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022  
Schedule of Classes

**VTMED 5706 - Veterinary Practice IV (1.5 Credits)**

The learning activities and experiences within this foundation course support the development of important knowledge and skills in preparation for the clinical year and post graduation. These include communication skills exercises using simulated cases and clients, financial management and career development topics, and regulations relevant to veterinarians.

**Prerequisites:** VTMED 5705.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021  
Schedule of Classes

**VTMED 6100 - Anatomy of the Carnivore (3 Credits)**

Students study carnivore anatomy by detailed systematic and regional dissection of the cat, with comparison to the dog. Student dissection is supplemented with prosections, radiographs, palpation of live cats, and exercises focusing on surgical approaches. There are opportunities to dissect other carnivores, such as the ferret and the fox, depending on availability of specimens. The lectures augment the laboratory dissection, and introduce the student to clinical anatomy of the cat and functional morphological comparative features in the Order Carnivora, as well as introduce topics in feline medicine and surgery. Students do an independent research project on the carnivore species of their choice, and give an oral presentation on this to the class.

**Prerequisites:** VTMED 5100.

**Enrollment Information:** Enrollment limited to: first-year veterinary students; second-, and third-year veterinary students with permission of instructor.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022  
Schedule of Classes



**VTMED 6101 - Anatomy of the Horse (3 Credits)**

Organized as a traditional anatomy course that relies primarily on students learning the anatomy of horses through hands-on dissection laboratories augmented by lectures and highlighted by clinical correlations. An understanding of anatomy that provides the foundation for surgery and medicine. Its relevance to clinical practice is emphasized by the regional approach to dissection. Most lectures emphasize structural-functional correlations that are unique or important in the horse. Student dissection cadavers will be supplemented by skeletal materials, radiographs, models, preserved pre-dissected specimens, and fresh specimens when they are available.

**Enrollment Information:** Enrollment limited to: first-year veterinary students; second-, and third-year veterinary students with permission of instructor.

**Course Fee:** Course Fee, \$30. Manual fee.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6102 - Anatomy of the Ruminant (3 Credits)**

Covers the regional anatomy of several ruminant species using dissection laboratories, procedure laboratories, demonstrations, and lectures. Emphasizes the functional consequences of structural modifications and anatomical features relevant to clinical practice. Student dissection material is supplemented by skeletal materials, models, predissected specimens, and postmortem specimens. Students are required to complete an independent study project on a relevant subject of their choice. Assessment includes practical examination.

**Prerequisites:** VTMED 5100.

**Enrollment Information:** Enrollment limited to: first-year veterinary students; second- and third-year veterinary students with permission of instructor.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6103 - Comparative Anatomy: Pattern and Function (3 Credits)**

The aim of this course is to give students an understanding of the diversity of forms and functions in the vertebrate body. By the end of the course, students will have worked with a plethora of different vertebrates and these experiences will provide a framework to handle unfamiliar species that they encounter in veterinary practice (including mammals, birds, reptiles, amphibians, fish). Rather than dive deeply into a single species as we did in Block 1, we build upon knowledge of the dog to examine a variety of different species. As a result, we do not go into the same level of detail on all species at all times and will instead focus our efforts on understanding unusual or useful anatomical aspects of each animal that we work with.

**Prerequisites:** VTMED 5100.

**Enrollment Information:** Enrollment limited to: first-year veterinary students; second-, and third-year veterinary students with permission of instructor.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6120 - Anatomy and Histology of Fish (2 Credits)**

Provides an overview of the diversity of anatomy and histology of fish. Students participate in lecture, discussion, and laboratory exercises to review the major organ systems. Extensive use of virtual microscopy and assigned readings is expected. Each student prepares a term paper and makes one oral presentation.

**Enrollment Information:** Enrollment limited to: first-year veterinary students; second-, and third-year veterinary students with permission of instructor.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6324 - Applied Pharmacology with an Emphasis on Antimicrobial Therapy (1 Credit)**

Familiarizes students with antimicrobial drugs used in veterinary practice. Builds on fundamental pharmacological and microbiological principles covered in Course 5400, considers antibacterial, antifungal, antiprotozoal, and antiviral drugs from the point of view of unique pharmacokinetic properties, indications for clinical use, and potential toxicities as the basis for rational use.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6330 - Basic Nutrition for Veterinary Students (1 Credit)**

Introduction to nutrition, including basic concepts in metabolism from a comparative aspect. This class will focus primarily on monogastric nutrition with some comparisons to hindgut and foregut fermenters. Lifestage nutrition and common ailments including osteoarthritis, obesity, immunology and cognitive dysfunction will be highlighted as common ailments for nutritional intervention in companion animals (dogs, cats).

**Prerequisites:** VTMED 5310.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6421 - Epidemiology of Infectious Diseases (1 Credit)**

Introduces the epidemiologic methods used in infectious disease investigations. Also discusses the importance of surveillance systems in detecting modern epidemics and in the development of effective disease prevention and control strategies. Emphasizes understanding the relationships between the host, the agent and the environment as they relate to disease causation. Explores contemporary epidemiologic methods applicable to old diseases that remain real or potential problems, newly emerging infectious diseases, and nosocomial infections. Selected diseases are discussed to clarify the role of epidemiology in understanding the pathogenesis of infectious processes in individuals and groups of animals. The students have the opportunity to apply the methods learned to actual disease problems and write an epidemiologic report that might lead to a publication in a peer reviewed scientific journal.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6423 - Clinical Diagnostic Parasitology (0.5-1 Credits)**

The course is intended to give students experience in diagnosing parasitic infections by performing appropriate parasitological testing methods on clinical samples from patients on their rotation. Students evaluate the test results in terms of treatment or management of the infections. If clinical specimens are not available, appropriate materials are provided for study and evaluation. Ambulatory students typically do qualitative and perhaps quantitative flotations on samples from large animal cases they have encountered that week. In CPS, one hour is spent testing samples from current dog and cat patients, while a second hour is devoted to a discussion of the treatment of common endo-and ecto-parasites. Pathology students typically examine and identify intact parasites they retrieved from various organs at necropsy and review common parasites of hosts encountered. This course is considered to be a logical extension to Foundation Course IV, Host, Agent, and Defense, and is expected to build on the didactic material presented in Large and Small Animal Parasitology.

**Prerequisites:** VTMED 5510.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Fall 2024, Summer 2024

Schedule of Classes

**VTMED 6425 - Introduction to Shelter Medicine (0.5 Credits)**

The 8 hours of lecture in this course covers basic shelter medicine principles, including the history of sheltering and humane organizations, issues with pet overpopulation and free roaming companion animals, an overview of preventive medicine and population health in shelters, sanitation and disinfection, and population management.

**Prerequisites:** VTMED 5400. Highly recommended prerequisite: VTMED 6734.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6426 - Timely Topics in Veterinary Parasitology: Large-Animal (0.5 Credits)**

In-depth look at one or a few parasites of special interest relative to large-animal medicine. Presents details of taxonomy, biology, epidemiology, clinical presentation, and preventative and curative treatment. Efforts are made to discuss those aspects of the disease as it relates to the practical control of these and in-depth coverage of primary literature relating to the parasite being discussed. Topics vary annually. The course is presented in a lecture/discussion format.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2023, Spring 2022, Spring 2021, Spring 2020

Schedule of Classes

**VTMED 6427 - Timely Topics in Veterinary Parasitology: Small-Animal (0.5 Credits)**

In-depth look at one or a few parasites of special interest relative to small-animal medicine. Presents details of taxonomy, biology, epidemiology, clinical presentation, and preventative and curative treatment. Efforts are made to discuss those aspects of the disease as it relates to the practical control of these and in-depth coverage of primary literature relating to the parasite being discussed. Topics vary annually. The course is presented in a lecture/discussion format.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2023, Spring 2022, Spring 2021, Spring 2020

Schedule of Classes

**VTMED 6428 - Vaccines: Theory and Practice (1 Credit)**

Broad overview of veterinary vaccines and vaccine programs used in contemporary small and large animal medicine, the poultry industry, aquaculture and equine practice. Considers general guidelines for vaccine use, and the process underlying vaccine development from an industry and scientific perspective. Addresses fundamental mechanisms governing vaccine efficacy, as well as recent advances in the use of carriers, adjuvants and immunostimulants, attenuated pathogens, recombinant subunit vaccines, viral and bacterial vectors for vaccine delivery, and genetic immunization with DNA and mRNA. Finally, the ethics and public perception of vaccine use is discussed.

**Prerequisites:** introductory immunology course or VTMED 5400.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students; or permission of instructor.

**Last Four Terms Offered:** Spring 2023, Spring 2021, Spring 2019, Spring 2017

Schedule of Classes

**VTMED 6430 - Veterinary Perspectives on Pathogen Control in Animal Manure (1 Credit)**

In-depth look at the management of pathogens in animal manures. Reviews the pathogens involved, the role of governing agencies, the survival of pathogens in the field, and methods of pathogen destruction. Discusses commercial methods of manure processing for the control of these pathogens for the protection of other animals and the human population. Concludes with class discussions with major stakeholders representing the dairy, beef, pork, and poultry industries and their understanding of the problem as it relates to veterinary students.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6431 - Microbial Safety of Animal-Based Foods (1 Credit)**

The course will cover the main issues and pathogens relevant to the safety of animal-based foods. The course will consist of lectures and discussions on topics of pre-and post-harvest food safety and various pathogenic microorganisms of importance. Instructor-led discussions will focus on emerging new issues in food safety and approaches that can be used to assure the safety of animal-based foods.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6432 - Fish Health Management (1 Credit)**

This lecture and laboratory course provides an overview of fish health management in commercial aquaculture, aquarium systems, and natural waters. The laboratory is designed to provide students with a knowledge base and hands-on fish necropsy, diagnostic, anesthesia, blood collection, imaging and fish health management in large and small aquatic systems. Students will maintain and manage small aquarium systems to gain an appreciation for the science behind the operation of those systems. This course requires time outside the normal scheduled class sessions for management of the aquariums and for an external visit to an aquatic facility. Student evaluation will be comprised of four parts: (1) participation to course and labs, (2) maintenance of aquariums and lab report, (3) written assignment on a topic related to fish health, and (4) presentation of this paper written assignment in class.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6434 - Advanced Shelter Medicine (1.5 Credits)**

The course will cover more advanced topics in shelter medicine practice: management of common infectious diseases, facilities and housing, quality of life and humane euthanasia, behavioral programs, high quality high volume spay neuter, veterinary forensic exams, access to care and spectrum of care considerations, community cats, and regulatory matters affecting shelters and shelter practice. Lectures and readings are supplemented by in-person activities including an in-person shelter tour, outbreak management exercise, hands-on spay-neuter technique training, and intake procedure models.

**Prerequisites:** VTMED 6425.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6436 - Directing Community Practice (1 Credit)**

The format is a both peer-mentored and service-learning which takes place in a clinical setting. Eight student directors organize and supervise bimonthly healthy pet clinics where they mentor other, less experienced students to provide preventative veterinary care to animals of under served citizens in the Ithaca community.

**Enrollment Information:** Enrollment limited to: second- year veterinary students with previous experience working as clinicians at Southside Healthy Pet Clinic with recommendation by previous directors.

**Exploratory Studies:** (CU-CEL)

**Last Four Terms Offered:** Spring 2025, Fall 2024, Spring 2024, Fall 2023

Schedule of Classes

**VTMED 6437 - Infectious Diseases and Management of Poultry (1 Credit)**

An introductory course covering poultry diseases, general health, and management. Emphasis is placed on diseases of economic importance and the most common viral, mycoplasma, bacterial, fungal, parasitic and nutritional diseases of poultry species. Students learn about the etiology, transmission, clinical signs, lesions, diagnosis, treatment, prevention and control of the diseases.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6438 - Advanced Work in Animal Parasitology (0.5-1 Credits)**

Intended for veterinary students with interests in parasitology research. In-depth training in aspects of animal parasitology tailored to their interests, e.g., improved fecal diagnostics, methods for diagnostics of parasites in skin scrapings, in vitro cultivation of parasites, training in running MATs for toxoplasmosis, egg-hatch assays, PCR for specific agents, etc.

**Enrollment Information:** Enrollment limited to: first-, second-, third-, and fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Summer 2024, Spring 2024, Fall 2023

Schedule of Classes

**VTMED 6521 - Aquavet II: Comparative Pathology of Aquatic Animals (2 Credits)**

Advanced course (sponsored by Cornell University) covering the comparative pathology of aquatic invertebrates and vertebrates commonly used as laboratory animals. The material presented consists of discussions of the diseases of aquatic animals as well as extensive use of the microscope and virtual microscopy to examine the histopathology associated with these diseases. The course is taught by an invited faculty of 12 individuals who are leaders in their respective fields of aquatic animal medicine.

**Prerequisites:** coursework or relevant experience in aquatic animal health, and permission of instructor.

**Enrollment Information:** Enrollment limited to: second-, third- and fourth-year Veterinary students

**Last Four Terms Offered:** Summer 2025, Summer 2024, Summer 2023, Summer 2022

Schedule of Classes

**VTMED 6526 - Small Animal Clinical Nutrition (1 Credit)**

This course will cover nutritional intervention in disease (cardiac, LUTD, renal, hepatic, osteoarthritis, critical care, immunonutrition, GI diseases, allergic disease, cognition, sarcopenia, endocrine diseases, obesity). Each lecture will cover a different topic starting with the mechanism of disease and then focus on the basic medical and in depth nutrition treatment of the disease process including the therapeutic diets available to help ameliorate the medical condition.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6527 - Veterinary Aspects of Captive Wildlife Management (2 Credits)**

This course will review principles of captive zoo and wild animal management. Students will be challenged to learn and integrate a variety of disciplines that are essential to managing these animals successfully in a captive or semi-free-ranging environment. These disciplines include but are not limited to species-specific: (1) behavior and behavioral requirements, (2) nutritional requirements and problems, (3) natural history, (4) zoonotic and toxicological problems, (5) manual restraint and anesthesia, (6) preventive medicine, and (7) medical and legal ethics. The most common species will be presented in lectures, student presentations and special activities.

**Enrollment Information:** Enrollment limited to: second-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes



**VTMED 6528 - Equine and Food Animal Surgical and Anesthetic Techniques (1 Credit)**

This course consists of laboratories performing surgical and anesthesia procedures on horses, calves, cadaver specimens, and animal models. The intent of this course is to familiarize students with a variety of surgical and anesthetic techniques. The course is intended for students pursuing large animal practice after graduation.

**Enrollment Information:** Enrollment limited to: third- year veterinary students. Preference given to: students who have indicated/tracking a career interest in Equine and Production Animal.

**Last Four Terms Offered:** Winter 2025, Winter 2024, Winter 2023, Winter 2022

Schedule of Classes

**VTMED 6530 - Llama Tutorial (1 Credit)**

Autotutorial or group tutorial course covering common problems of llamas and alpacas. Participants are provided with study guides consisting of brief case descriptions and sample study questions. Reference is made to textbooks and journal articles to assist students in finding the answers to the questions efficiently. Grading is based on an oral exam.

**Prerequisites:** VTMED 5400.

**Enrollment Information:** Enrollment limited to: second semester second-years, third- and fourth-year veterinary students.

**Exploratory Studies:** (LAAREA)

**Last Four Terms Offered:** Summer 2025, Spring 2025, Fall 2024, Summer 2024

Schedule of Classes

**VTMED 6531 - Poisonous Plants (1 Credit)**

Field trips demonstrate toxic plants growing in natural or cultivated settings. Lectures address economically important poisonous plants native to the United States. Information presented includes plant identification, natural habitat, toxic principles, clinical signs of toxicosis, and treatment and prevention of poisoning in animals. Some of the major toxic principles found in plants and considered in detail in the course are nitrates, cyanide, oxalates, photodynamic agents, alkaloids, and mycotoxins.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes

**VTMED 6533 - Advanced Equine Lameness (2 Credits)**

Designed to teach students the methodology of equine lameness diagnosis. Places a strong emphasis on a hands-on approach to learning and is primarily laboratory-based. During laboratories, students work in small groups on live horses to diagnose the cause of their lameness. To this end, students learn both the practical skills, such as perineural and intra-articular blocks, as well as the methodology necessary to systematically work up a lameness case. Laboratories also provide students with the opportunity to practice field radiography and gain ultrasound skills as they pertain to equine lameness. Additionally, students have the opportunity to practice basic farrier skills. Lecture topics are intended to round out the students' understanding of lameness by providing them with a knowledge base of the common causes of lameness, organized by response to local anesthesia. Imaging interpretation is emphasized through case discussions. The course is recommended for students anticipating entry into equine practice. Students seeking hands-on experience with horses are also welcome.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6534 - Equine Reproduction (1.5 Credits)**

The goal of this course is to provide the fundamental knowledge and skills necessary for application of routine and advanced practices in equine reproduction. This will be accomplished through hands-on experiences during laboratory sessions as well as lectures focused on the reproductive anatomy, physiology, behavior, and management of mares, stallions, and neonatal foals.

**Enrollment Information:** Enrollment limited to: third- year veterinary students. Priority given to: Equine/Large Animal pathways.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6536 - Advanced Dairy Reproduction (2 Credits)**

Offers lectures and labs that provide both theoretical and practical training in current approaches to the veterinary aspects of dairy cow reproductive care and management. The aim is to empower the student with entry level, current knowledge and skills for the reproductive aspects of any modern dairy practice.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6538 - Special Problems in Equine Medicine (0.5 Credits)**

This course is intended for students interested in providing care to horses upon graduation (equine or mixed practice). Relevant equine medicine topics will be taught in a classroom setting such as equine cardiology, antimicrobial use and more.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6539 - Disorders of Large-Animal Neonates (1 Credit)**

Introductory neonatology course. The emphasis is on the wellness examinations and preventative care for neonatal calves, crias, lambs, kids and foals in the first few days of life. Followed by exploration of the medical and surgical problems of neonates with an emphasis on the foal. To provide experiential learning, students sign up for after-hours shifts in the neonatal intensive care unit providing nursing care of hospitalized neonates under staff supervision.

**Enrollment Information:** Enrollment limited to: first-, second-, and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6541 - Surgical Pathology (1-4 Credits)**

Provides hands-on experience in the Surgical Pathology Service of the Department of Biomedical Sciences. Working with the attending pathologist, students examine tissue specimens histologically, propose diagnoses, and discuss their interpretations.

**Enrollment Information:** Enrollment limited to: second-, third-, and fourth-year veterinary students. Second year students must have satisfactorily completed block IV.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Summer 2024

Schedule of Classes

**VTMED 6542 - Medical and Surgical Problems of Dairy Cattle: Emphasis on the Individual Animal (1.5 Credits)**

This lecture-based course provides students in-depth material on special problems in bovine medicine and surgery. The course covers the most common diseases of dairy cattle with a focus on the diagnosis and treatment of individual animals.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6543 - Advanced Small Animal Medicine (1 Credit)**

The course expands on core knowledge gained in Foundation Course V through lectures and/or case discussions. The material will focus on current hot topics of controversies in small animal medicine, or expand on complicated or unusual presentations of material not covered in Foundation Course V. This course aims to both reinforce basic concepts and introduce more advanced topics to help prepare students for entry into small animal practice.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6545 - Sheep and Goat Medicine (1 Credit)**

Discusses diagnosis, treatment, and prevention of medical and surgical problems of individual small ruminants and of sheep and goat herds. Basic information on breeds, behavior, nutritional requirements, and management systems is supplied. Economically important contagious or metabolic diseases are discussed in depth. The diagnostic evaluation and differential diagnoses for common clinical presentations such as skin disease, neurologic disease, lameness, and mastitis are considered. Herd monitoring of economically important parameters and necropsy diagnosis of abortions and neonatal losses are addressed. Breeding systems, pregnancy diagnosis methods, correction of dystocias, and common surgical procedures are discussed and demonstrated in laboratory sessions. Also offered as an autotutorial during summer and distribution periods in spring.

**Prerequisites:** Prerequisite or corequisite: VTMED 6546. Lab may only be taken with concurrent or prior enrollment in lecture or autotutorial course.

**Enrollment Information:** Enrollment limited to: third- and fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Summer 2024, Spring 2024

Schedule of Classes

**VTMED 6546 - Sheep and Goat Medicine: Lab (0.5 Credits)**

The laboratory sessions will provide the opportunity for students to visit and evaluate local sheep and goat herds and to learn about the economics and health problems associated with their operation. Milk, meat, and fiber production will be discussed as will infectious and parasitic diseases. Additional laboratory sessions will address neonatal care and necropsy, reproduction and dystocia management, parasite diagnostic and control measures, and routine surgeries such as disbudding, dehorning, docking, castration, and vasectomy using cadaver specimens.

**Corequisites:** VTMED 6545.

**Enrollment Information:** Enrollment limited to: third- and fourth-year veterinary students. Lab may only be taken with concurrent or previous enrollment in lecture or autotutorial course.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6547 - Clinical Ophthalmology (0.5 Credits)**

The principles and practice of entry-level veterinary ophthalmology introduced in Foundation Course V, Introduction to Veterinary Ophthalmology, are supplemented by lectures and discussions that emphasize species differences, basic surgical decision-making, and recognition of ocular conditions appropriate for referral. Class periods will be devoted to management of ocular emergencies, ocular surgeries that can be performed by general practitioners, large animal ophthalmology, and exotic animal ophthalmology.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2020

Schedule of Classes

**VTMED 6548 - Dairy Production Medicine (1 Credit)**

This course will introduce students to dairy production medicine concepts and strategies for achieving dairy health, productivity, and profitability goals through service as bovine practitioners. Health and performance monitoring by the use of dairy records, disease prevention, and evidence-based approaches to dairy management will be stressed. Students should expect to develop their knowledge of dairy production systems and bovine practice, acquire skills for analyzing dairy performance, and strengthen their abilities to problem solve and communicate in groups.

**Enrollment Information:** Enrollment limited to: second- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Fall 2022

Schedule of Classes

**VTMED 6550 - Clinical Pharmacology (0.5 Credits)**

Offered after Foundation Courses I-V and formal exposure to pharmacology course work is completed. The course is designed to familiarize students with drug use in the clinical setting. Pharmacological concepts are emphasized, with a focus on the rationale for drug choice, alternative drug choices available, pharmacokinetic considerations, and potential drug interactions/toxicities. This course is offered at the time students are about to embark on their clinical rotations. It is designed to emphasize practical aspects of pharmacology in the clinical setting, using basic concepts obtained during formal course work. The onus is placed on the student to explain/rationalize drugs currently employed clinically.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6551 - Topics in Veterinary Emergency and Critical Care Medicine (1 Credit)**

This course builds upon the foundation built in Block V. It will consist of a combination of lecture and case discussion sections. Although all of the discussions will center on small animal medicine, the same principles often apply to both small animal and large animal situations. Topics that MIGHT be covered include a selection from the following list: shock, trauma, stabilization, cardiopulmonary resuscitation, respiratory emergencies, cardiac emergencies, endocrine emergencies, acute renal failure, hematologic emergencies, transfusion medicine, respiratory monitoring, hemodynamic monitoring, acute abdomen, emergency surgical procedures and sepsis. The class will focus on both emergency stabilization and management of critically ill patients.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6558 - Advanced Small Animal Clinical Oncology (1 Credit)**

Cancer is among the leading causes of morbidity and mortality in companion animals. Prevention, diagnosis and management of cancer in companion animals represents a significant component of small animal clinical practice both in academia and the private sector. The course will provide information on the biological behavior and management of additional types of cancers in dogs and cats not covered in the core material. This information will also be supplemented by more information about new cancer therapies that are being introduced in to veterinary oncology, as well as information about managing chemotherapy complications.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6559 - Applied Dairy Nutrition for Practitioners (2 Credits)**

Provides a foundation in the principles of dairy cattle nutrition for veterinary students interested in dairy production medicine. Emphasizes integration of the principles of dairy cattle nutrition with practical rational formulation and with troubleshooting on dairy farms, both preventive and curative.

**Enrollment Information:** Enrollment limited to: first-, second-, and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6562 - Animal Pain (1 Credit)**

This course will build on the knowledge of pain in veterinary patients acquired in VTMED 5500 Animal Health and Disease (Foundation Course V). We will address the prevention, recognition, and treatment of pain across domestic and non-domestic species. Species-specific pain scoring systems will be introduced. Pharmacological and non-pharmacological treatment of adaptive and maladaptive pain will be presented, with an emphasis on pain management in primary care and emergency practice. Virtual attendance (or watching recorded lectures) is allowed. Grade is based on attendance, completion of online, case-based modules, and an open-book, case-based final examination.

**Prerequisites:** VTMED 5500.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6563 - Aquavet III: Practical Training in Aquarium and Captive Aquatic Animal Medicine (5 Credits)**

A small group of students will shadow and assist veterinarians at the Georgia Aquarium for two weeks. Relevant lectures will be given each day. The next week is a hands on endoscopy training at the University of Georgia. Here lectures will be followed by individual training on rigid endoscopy of turtles and fish. Additionally each student will perform fish surgery. The last two weeks are cetacean medicine. Here the students will have training on all aspects of cetacean medicine at Dolphinaris in Cancun, Mexico. Cetacean specialists there will teach ultrasound of dolphins as well as species specific hematology, fecal and chuff cytology and general care and necessary medical training. The two week course in Cancun Mexico will start on Monday and end on a Saturday of the following week.

**Prerequisites:** formal course work in diseases of aquatic animals or appropriate experience and permission of instructor (available, by a competitive application process, to veterinary and graduate students).  
**Course Fee:** Course Fee, TBA. TBA.

**Last Four Terms Offered:** Summer 2025, Summer 2024, Summer 2023, Summer 2022

Schedule of Classes

**VTMED 6565 - Avian Biomedicine and Diseases (2 Credits)**

**Last Four Terms Offered:** Spring 2024, Spring 2023, Spring 2022, Spring 2021

Schedule of Classes

**VTMED 6566 - Canine and Feline Dermatology (0.5 Credits)**

Dogs and cats with skin and ear diseases account for most general companion animal practice patients. This course will emphasize the approach to diagnosis, treatment, and prognosis for common and often frustrating canine and feline cutaneous reaction patterns. The course will be taught using a multimodal approach utilizing videos, readings, home assignments, and in-person case discussions to promote learning. Asynchronous assignments, quizzes, and classroom attendance will determine your final grade.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6567 - Equine Dermatology (0.5 Credits)**

Horses with skin diseases account for a significant portion of the patients seen in large animal practice. This course will emphasize the approach to diagnosis, treatment, and prognosis for common, and sometimes frustrating, equine derm cases. Attendance to class is mandatory. Attendance and final grade (S/U) determined by weekly attendance and may include weekly content quizzes.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2022, Spring 2021

Schedule of Classes

**VTMED 6568 - Dairy Herd Epidemiology and Economics (2 Credits)**

Veterinarians serving the dairy industry need a sophisticated understanding of population medicine, epidemiology and economics. This course will build on concepts covered in foundation courses and provide practice in applying epidemiology and economics principles to dairy production medicine. While focused on dairy cattle, the skills learned are applicable to other food animal production systems. The course will include lectures and computer laboratories; attendance and participation in group discussions and team problem solving is a key part of the course.

**Enrollment Information:** Enrollment limited to: third- year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6569 - Clinical Aspects of Non-Traditional Species (3 Credits)**

This course will provide a more indepth instruction in the clinical management of exotic small mammals, birds, reptiles, amphibians, and fish for students entering a variety of practice situations. Information will be covered by species and related to work discussed in previous courses and the core-curriculum. A introduction on the importance of evidence-based medicine in the context of exotic animal practice is provided to help students critically appraise treatment and diagnostic options. Lectures cover diagnostics and treatment of various species, with specific sessions on topics of particular importance (eg mammal spay, lagomorph and rodent dental disease). Sessions of group work are performed to help proactive learning from the class.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6571 - Veterinary Clinical Immunology (0.5 Credits)**

Clinical immunology applies the knowledge of basic immunology to clinical conditions, allowing better understanding of pathophysiology of diseases, interpretation of diagnostics, and choice of treatment modalities. Using current published literature, the course will consist of class discussions on immunodeficiencies, immunologic testing, immune-mediated conditions and allergies, immunotherapy and immunosuppression, immune system development and immunosenescence, immunology of cancer, and vaccinology. Both small and large animal clinical conditions will be discussed.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2023, Spring 2022, Spring 2021

Schedule of Classes

**VTMED 6572 - Equine Sports Medicine (1.5 Credits)**

This course is focused for a student interested in equine veterinary practice, whether it be mixed practice or exclusively equine. This course runs alongside the equine lameness course and imaging course in C distribution period. The format will be interactive with case discussions and hands on laboratories. The course will provide an in depth evaluation of the performance horse on topics such as foot problems, tendon disorders, neck and back issues, myopathies, gait abnormalities, respiratory conditions, and cardiac disease. The focus will be on providing the student with the tools to obtain an accurate diagnosis and then manage and treat the various disorders.

**Prerequisites:** VTMED 6101 or VTMED 6102.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6573 - Donkey Health and Welfare (0.5 Credits)**

The objective of this rotation is to prepare students for their future encounters with all types of donkeys in all types of settings and to provide a thorough understanding of appropriate welfare for these donkeys. This course will emphasize anatomical, physiological, behavioral and other differences between the donkey and the horse. It will also highlight the differences between the typical domestic donkey, feral donkeys, working donkeys, and those involved in production systems.

The goal is to provide the tools necessary for practitioners in equine, mixed or other fields to have successful, productive encounters with donkeys whether those encounters occur in their veterinary lives or their personal travels.

**Prerequisites:** VTMED 5510.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2024, Spring 2023, Spring 2022, Spring 2021

Schedule of Classes

**VTMED 6576 - Introduction to Minimally Invasive Surgery (1 Credit)**

The course runs 8 hours per day for one week and enrollment is by application. Students interested in taking this course should submit a letter of interest and a current CV. The letter of interest should explain how this course will further the student's surgical skills or career. Preference will be given to 3rd year students. The objective of the course is to introduce students to laparoscopy and the equipment, instrumentation, skills and techniques necessary to perform minimally invasive surgical procedures. Enrolled students' progress will be assessed, and students must be willing to give consent for assessment and analysis of their skill development. The course is intended for students with a strong interest in small animal surgery.

**Enrollment Information:** Enrollment limited to: third-year veterinary students by application. Permission of instructor required.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6577 - NYSCHAP (1.5 Credits)**

Herd Health and Biosecurity Risk Evaluation Using the NYS Cattle Health Assurance Program Model Introduces students to the identification of disease risk and evaluation of cattle operations, focusing on animal/ herd health, food safety, and the environment. The course combines information on risk assessment, identification of priority issues, creation of herd plans, biosecurity, herd diseases such as Johne's, standard operating procedures, and environmental issues. Additionally, four local farms will be visited to provide students the opportunity to implement knowledge gained in lectures.

**Prerequisites:** VTMED 5400.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6578 - Clinical Decision Making in Bovine Veterinary Practice (1 Credit)**

This course covers a variety of bovine scenarios encountered by clinicians in the Ambulatory and Production Medicine Clinic. Knowledge will focus on physical examination findings, use of diagnostic methods, treatment plans, and the economics of different treatment options. This is a self-paced course with a 1-hour class meeting each week to recap cases and answer questions. Upon successful completion, students will be able to diagnose the presented diseases based on history, photographs, or videos; develop treatment plans including appropriate drug use; understand there are multiple, acceptable ways to tackle a case; and identify resources for future learning opportunities.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2023

Schedule of Classes

**VTMED 6579 - Large Animal Diagnostic Imaging (1 Credit)**

Including both case-based and hands-on practice, this mixed format course is designed to provide veterinary students with the imaging knowledge and interpretation skills necessary to succeed in large animal veterinary medicine. The course provides students with an understanding of all diagnostic modalities, with emphasis on radiography and ultrasonography, organized by body regions. The imaging content is selected based on what is considered core material for the practicing veterinarian, including recognition of appropriateness of examination and modality. The course focuses on conditions affecting horses though as appropriate production animal imaging will be incorporated.

**Prerequisites:** VTMED 5100.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023

Schedule of Classes



**VTMED 6580 - Introduction to Wildlife Medicine (1 Credit)**

Practitioners in any area of clinical medicine may be presented with injured or ill native wildlife. This distribution course will provide an introductory knowledge base and core skill set pertaining to the clinical management of common diseases and conditions in a structured format. Overseen by the wildlife medicine faculty, house officers, and veterinary technicians of the Janet L. Swanson wildlife hospital veterinary students will learn through combined techniques including didactic labs/lectures, independent study, and in-hospital clinical observations. Experience in wildlife medicine is not necessary for this course, and students with any career practice area of interest are welcome. Successful completion of this course depends on successful completion of lectures, case study assignments, clinical reasoning exercises, as well as attendance at labs and lectures.

**Enrollment Information:** Enrollment limited to: Spring: third-year veterinary students; Summer: first-, and second-year veterinary students.  
Schedule of Classes

**VTMED 6581 - Animals as Food: Controversies and Conversations (1 Credit)**

This class is meant to introduce students to some of the ethical, moral, and practical considerations of consuming animals and animal products. These topics are often emotionally charged and weighted; our expectation is for students to critically evaluate their own opinions against those of others, and to consider whether and when “ethical” and “moral” hold different meaning for other cultures, individuals, and contexts. They are challenged to consider both the emotional and practical arguments relating to each practice we discuss. Assigned readings and brief assignments prepare students for class-based discussions. Weekly discussion prompts are provided but students are encouraged to explore others, allowing conversations to shift toward topics of greatest student interest.

**Enrollment Information:** Enrollment limited to: first-, second- and third-year veterinary students.  
Schedule of Classes

**VTMED 6600 - Theriogenology Service (2 Credits)**

Exposure to clinical procedures in theriogenology as provided by Cornell University Hospital for Animals patient load and augmented by teaching herd animals. Exposure to clinical procedures in theriogenology as provided by Cornell University Hospital for Animals patient load and augmented by teaching herd animals. Clinical techniques taught include palpation and ultrasound evaluation, artificial insemination and pregnancy diagnosis in mares; semen collection and evaluation in stallions; and foaling monitoring and neonatal foal care. Additionally, students get exposure to breeding management and assisted reproduction in mares at the Equine Park and to theriogenology clinical cases and emergencies in CUHA comprising all equine, camelid, canine and bovine species.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Summer 2024, Spring 2024

Schedule of Classes

**VTMED 6601 - Cardiology Service (2 Credits)**

Provides students with the opportunity to put into practice what they have learned in the foundation years. The management of the most common cardiac diseases are emphasized including congestive heart failure, arrhythmias, and secondary cardiac diseases. All species are examined, large and small, although the majority are small animals. Diagnostics including cardiovascular physical examination, electrocardiography, radiography, and echocardiography are taught. The rotation includes clinical work, didactic teaching, and self-initiated digging for information.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6602 - Laboratory Animal Medicine (2 Credits)**

Laboratory animal medicine is a diverse field in which veterinarians directly impact the well-being of animals used in research, teaching and testing. Laboratory animal veterinarians assist researchers in achieving their goals, while encouraging replacement, reduction, and refinement of animal use. Treatment of animals and preparation of preventive medicine programs requires the laboratory animal veterinarian to have knowledge of the biology and comparative medicine of a wide variety of species. It is also essential for laboratory animal veterinarians to have knowledge of research methodologies, and animal models of disease as well as a good understanding of state and federal regulations, and guidelines governing the use of animals. In addition, occupational health and safety, and animal facility design are important parts of an institutional animal care program, to which laboratory animal veterinarians have input. The diversity of species, and the novel circumstances that arise regularly in this field make laboratory animal medicine an exciting and unique discipline of veterinary medicine. This rotation is an introduction to the specialty of laboratory animal medicine. Students are exposed to all aspects of a laboratory animal veterinarian's role. Activities include but are not limited to: accompanying laboratory animal veterinarians on clinical rounds of Cornell University's research animal facilities; participating in diagnostic and preventive medicine plans; attending review sessions on the biology, medicine, pathology, husbandry of traditional and non-traditional lab animal species; incorporating information on current legislation regulating the care and use of research animals; and exposure to various research activities on the Cornell University Campus.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6605 - Special Opportunities in Clinical Veterinary Medicine (2-6 Credits)**

Provides opportunities for students who have completed the prerequisites to explore professional areas of clinical interest that are either not available or expand upon the veterinary curriculum. Please consult the VTMED 6605 syllabus for additional information.

**Prerequisites:** VTMED 5500 and VTMED 5510.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6608 - Clinical Oncology (2 Credits)**

Management and prevention of cancer in companion animals represents a significant component of the practice of veterinary medicine. The focus of this clinical rotation is the development of a comprehensive set of skills necessary for a veterinarian to become an advocate for the client/patient with cancer. These skills include appropriate initial evaluation of animals with cancer; sensitive and effective client and referring veterinarian communication; ability to access relevant information from numerous sources related to cancer management; and ability to understand and apply principles of surgical, medical and radiation oncology as well as techniques specifically related to minimize pain and treatment-related side effects in cancer patients.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6609 - Clinical Rotation with the Behavior Medicine Service (2 Credits)**

This clinical rotation will help students to understand normal animal behavior, primarily dogs and cats but also horses and other domestic species. They will gain the knowledge of how to prevent undesirable behaviors that can be utilized daily in clinics. In addition, we will discuss medical conditions which mimic or contribute to behavior problems. Students will practice taking behavioral history, making diagnoses and treatment plans for patients, and delivering treatment plans to strengthen client communication skills.

**Last Four Terms Offered:** Summer 2025, Spring 2011, Spring 2010, Fall 2009

Schedule of Classes

**VTMED 6613 - Equine Health Management Rotation (2 Credits)**

The objective of the Equine Health Management Rotation is to prepare students for diagnosing and treating common conditions of the horse in practice, whether it be exclusively equine or a mixed practice. The course places an emphasis on dentistry, podiatry, deworming, vaccination, and basic veterinary procedures. Many hands-on laboratories are taught on Cornell-owned horses (for example, 3 dental labs, 4h each performing oral examinations and addressing concerns in the mouth).

In addition, the course strives to provide information regarding equine veterinary business and the equine industry with guest speakers. The strengths of this course are the hands-on laboratories and ability to hone your technical skills, along with the interaction with practicing equine veterinarians.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students with priority given to students with an interest in Equine or Mixed Practice.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes

**VTMED 6614 - Large Animal Emergency and Critical Care (2 Credits)**

The evaluation and management of critical patients and other emergency problems represents a significant component of the practice of large animal veterinary medicine. As emergency cases are frequently presented to these practitioners, it is imperative such veterinarians are well prepared. The focus of this clinical rotation is for students to acquire the knowledge, skills and thought processes necessary to triage large animal emergencies and manage critical patients. These skills include the appropriate evaluation, stabilization and treatment of emergency patients, and the management of post-operative cases and other critical patients. Participants access relevant information from various sources related to emergency and critical care medicine and surgery in an effort to understand and apply these principles to clinical cases. Participants primarily have patient care responsibilities in the Large Animal Intensive Care Unit of the Cornell University Hospital for Animals and work closely with technicians and clinicians to develop familiarity with technical and nursing procedures. In addition, students will learn common veterinary skills and techniques using teaching animals when time permits. The large animal emergency and critical care rotation is primarily an after-hours rotation.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Fall 2024, Summer 2024

Schedule of Classes

**VTMED 6615 - Special Topics in Ambulatory and Production-Animal Medicine (2 Credits)**

Provides specialized opportunity in Production Medicine. Consists of participation in an experience designed to improve knowledge and skills regarding production systems. Examples of focus areas include livestock production medicine, poultry and fish farming, milk quality assessment, small ruminant medicine, herd management experience, and specialized diagnostic testing. This course is available in 2 week increments after application to the course leader at least one month in advance of the rotation. Presentation of the completed experience to a student club or in Ambulatory rounds is required.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6616 - Small Animal Dentistry and Oral Surgery (2 Credits)**

This rotation is designed to introduce students to clinical small animal dentistry and oral surgery. By the end of the rotation, students are expected to be capable of: performing a thorough oral examination, obtaining and interpreting intraoral radiographs, discussing appropriate therapeutic options, performing basic periodontal procedures and simple and surgical extractions, and administering pertinent regional nerve blocks.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6618 - Clinical Neurology (2 Credits)**

The Neurology/Neurosurgery (NNS) clinical rotation at Cornell University's College of Veterinary Medicine is a 2 week time period in which the student is directly involved in the diagnosis, management and treatment of animals with a diverse array of neurologic disorders. Gait evaluation and the neurological examination are skills that can be applied to any species and these are emphasized over the rotation. During the rotation students will have multiple opportunities to practice and get feedback on their neurological examinations. This allows students time and practice so that they can apply what they have learned to whichever species they intend to work with following graduation. We have previously discussed other species with neurological conditions and examinations when students have made their interests known. Although clinics is primarily devoted to dogs and cats, we occasionally consult with other services such as large animal medicine and surgery and exotics. The student is expected to assist in all aspects of the rotation, including case rounds, patient receiving, medical and surgical treatments, client communication, and record-keeping. In addition to learning through clinical exposure, the student will be taught principles of clinical neurology during sit-down topic rounds. The primary goal of the rotation for the student is for the student to become comfortable and confident in performing and correctly interpreting the neurologic examination in a clinical setting. A secondary goal is the accumulation and application of practical clinical knowledge pertaining to neurologic diseases of companion animals. To do this effectively we discuss our clinical approach to cases so that students can practice their clinical decision making skills and approach to neurological patients.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6619 - Clinical Pathology Rotation (2 Credits)**

This two-week course consolidates principles of clinical pathology and provides students with additional experience in using clinical pathology data to help with interpretation, diagnosis and management of clinical cases, through the use of archived and current clinical cases. Students will become more experienced and confident in examining blood and cytology smears, interpreting electrophoretogram results and working through clinical case material. Students are required to interpret a mystery slide (hematology or cytology) and case with clinical pathologic data in the last week of the rotation. There is substantial interaction with clinical pathology faculty, staff and residents. The case material can be somewhat tailored to the students' areas of interest.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Fall 2024, Spring 2024, Fall 2023

Schedule of Classes

**VTMED 6620 - Introduction to Ambulatory Primary Care Medicine (1 Credit)**

This is a clinical service rotation in which students accompany ambulatory clinicians on a farm and stable calls and learn the skills and procedures necessary for operation of a modern veterinary practice offering primary care and production medicine services to large animal clients. Routine herd health visits are conducted for cattle, horses, sheep, and goats. Reproductive evaluations (including pregnancy and fertility examinations), sick and lame animal evaluation and treatment, and other health maintenance procedures make up the majority of non-emergency work. Emergencies are usually obstetric cases, injuries, and acute illness. In addition to assisting with routine scheduled work, students participate in diagnosis and medical or surgical treatment of ill or injured animals. This includes rotating assignments for night and weekend duty.

**Enrollment Information:** Enrollment limited to: first-, second-, and third-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Winter 2025, Summer 2024, Winter 2024

Schedule of Classes

**VTMED 6621 - Introduction to Small Animal Orthopedics (2 Credits)**

This 2-week distribution course will allow students in the curriculum early exposure to small animal clinical orthopedic practice. Preclinical students will shadow senior veterinary students for the first week, aiding in case admission, orthopedic case management, and morning/evening treatments. Pending case availability and abilities, preclinical students may begin to function more independently during the second week. Through aiding and being responsible for patient care, students will learn the core principles of diagnosis, prevention, and treatment of orthopedic diseases. Clinical skills that are developed through the rotation include history taking, physical and orthopedic examination, clinical record writing (SOAPs, surgery reports, discharges), radiographic interpretation, and laboratory testing interpretation. Students will partake in case rounding, assisting in surgery, owner discussions, and will become facile with the use of the electronic medical record system (Ezyvet). Students are expected to be present throughout the duration of the rotation according to hospital and curriculum guidelines.

**Enrollment Information:** Permission of instructor required. Must be able to perform a physical examination through Foundation Course VIIA laboratory. No expertise necessary in orthopedics. May be repeated for credit.

**Last Four Terms Offered:** Summer 2025, Summer 2024, Summer 2023, Summer 2022

Schedule of Classes

**VTMED 6622 - Small Animal Emergency Clinical Experience (2 Credits)**

Management of both emergent and critical cases represents a significant component of the practice of veterinary medicine. The focus of this course will be the initial development of a knowledge base and skill set necessary for a veterinarian to perform adequately in these areas, within a structured format. These skills will include the appropriate evaluation (triage) and stabilization of emergency patients, the management of postoperative and other critical patients, and sensitive and effective client communication. Participants will work closely with 4th year students, interns, residents, technicians and faculty on the Emergency & Critical Care Service to become familiar with technical and nursing procedures as well as to develop clinical skills and a systematic approach to clinical cases.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students. Permission of instructor required.

**Last Four Terms Offered:** Summer 2025, Winter 2025, Summer 2024, Winter 2024

Schedule of Classes

**VTMED 6623 - Clinical Rotation in Shelter Medicine: Principles and Practice (2 Credits)**

This clinical rotation is embedded at the SPCA of Tompkins County with travel to other area shelters. During their time with MSMP, students will be exposed to the principles and practice of veterinary medicine in a functioning animal shelter setting. Students will provide direct veterinary medical care to individual shelter animals and apply population health principles, including infectious disease diagnosis, treatment, and management; shelter wellness and protocol-based medicine; high-quality, high-volume spay-neuter and dentistry; shelter animal behavioral assessment, pharmaceuticals and modification, low-stress animal handling, and population and capacity planning. Cases vary with season and shelter intake. The daily schedule includes topic-based online modules, in-person clinical work, and topic rounds. Students will also give a live CE presentation for shelter personnel. Although spay/neuter is part of shelter medicine and will be part of this rotation, this is NOT a spay/neuter intensive rotation; caseload depends on the needs of the shelters we serve. Weekend duty is optional and as-needed.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students. Highly recommended prerequisite: VTMED 6425.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Fall 2024, Summer 2024

Schedule of Classes

**VTMED 6624 - Primary Care Surgery Service (2 Credits)**

The Primary Care Surgery service is a two-week rotation intended to provide students an opportunity to perform surgical procedures in the context of general practice. Emphasis is placed on physical exams (with a focus on low-stress handling) and addressing patients from a comprehensive perspective: intake to discharge. Student clinicians are accountable for all peri-operative care and communication with the shelter/rescue or client. Student clinicians are highly encouraged to experience different methods of performing key skills. There is a significant focus on ergonomic instrument handling, surgical technique, formulating appropriate treatment plans, accurate medical records, and pain/anxiety management. Spectrum of Care decision making is emphasized through case rounds, journal club, and student procedure presentations. Student surgeons work on critical decision making and collaboration with their team. By the end of the rotation, students will have had the opportunity to improve physical exam skills, surgical competence, confidence, and efficiency within the limits of accepted technique. Anesthesia support is provided by licensed veterinary technicians to ensure continuity in the methods of induction, patient monitoring, and recovery.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6626 - Introduction to Small Animal Clinical Neurology (1-4 Credits)**

A 1-2 week time period in which the student is initially observing the diagnosis, management and treatment of animals with a diverse array of neurologic disorders. Depending on the rotation some students may have the opportunity to take a more primary role in these activities towards the end of the 2-week rotations. Although primarily devoted to dogs and cats, we occasionally consult with other services such as large animal medicine and surgery and pocket pets/exotics. The student is expected to assist in all aspects of the rotation, including case rounds, patient receiving, medical and surgical treatments, client communication, and record-keeping. In addition to learning through clinical exposure, the student will be taught principles of clinical neurology during sit-down topic rounds. The primary goal of the rotation for the student is to gain experience in the clinic and by observing and practicing to become more comfortable and confident in performing and correctly interpreting the neurologic examination in a clinical setting. A secondary goal is the accumulation and application of practical clinical knowledge pertaining to neurologic disease of companion animals. Spring; one week during January 1 credit; Summer two week offering 2 credits.

**Prerequisites:** familiarity with EzyVet and ability to perform a physical examination (i.e. completion of Block VII's physical examination section), and completion of first-year Neuroanatomy course.

**Last Four Terms Offered:** Summer 2025, Winter 2025, Summer 2024, Winter 2024

Schedule of Classes

**VTMED 6628 - Clinical Sports Medicine and Rehabilitation (2 Credits)**

The Clinical Sports Medicine and Rehabilitation Service focusses heavily on mobility and function and sees a variety of patients including primary lameness workups, post-surgical rehabilitation, sport dog conditioning, and geriatric care. Foundation coursework in both physiology and musculoskeletal anatomy are applied to clinical cases from movement to healing to pain control. Lameness workups include orthopedic and neurological examinations as well as functional assessment, objective gait analysis, and pain scoring. Various modalities including but not limited to water therapy to neuromuscular electrical stimulation (NMES), therapeutic laser, acupuncture, extracorporeal shockwave, therapeutic ultrasound, and regenerative medicine will be introduced and incorporated as indicated. The course will foster a unique clinical thought processes as a physical therapist to identify impairments and functional deficits, allowing for the development of appropriate physiotherapy goals and exercises.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6629 - Wildlife Medicine (2 Credits)**

This rotation will expose students to the practice of wildlife medicine in a busy hospital setting with the guidance and mentorship of faculty, zoological medicine interns and residents, and four licensed wildlife technicians. Active participation in case management will provide the student with abundant hands-on experience in basic general clinical skills applicable to any species, an understanding of common native wildlife diseases and their management, as well as involvement in advanced wildlife medicine and surgery techniques. Students of any practice/career interest are welcome, and no prior wildlife experience is necessary. The rotation will be tailored to each student's career goals and experience level. No on-call duty is required.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6630 - Clinical Exotic Animal Medicine (2-6 Credits)**

The rotation on clinical exotic animal medicine is meant to provide the basis for veterinary students to take care of non-traditional pets, including rabbits, ferrets, rodents, parrots, chickens, snakes, lizards and chelonians. Veterinary students will be involved in the daily activities of the Exotic Pet Service at Cornell University Hospital for Animals, such as examination, hospitalization, diagnostics and treatments of exotic pets.

**Prerequisites:** VTMED 5520.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6634 - Cornell Ruffian Equine Surgery, Medicine and Emergency Service (2 Credits)**

Students will participate in the daily operations of a high-end full-service equine referral hospital located next to Belmont Park. They will learn alongside faculty, interns and staff in the triage, diagnosis, surgical and medical treatment and clinical care of equine patients. The student will acquire multidisciplinary sports medicine and lameness experience given the diverse caseload. Students will participate in the clinical interpretation of imaging modalities including radiography, ultrasonography, nuclear scintigraphy and MRI. The focus of this clinical rotation is for students to acquire the knowledge, skillset and thought processes necessary to evaluate, treat and manage elective and emergent cases. Daily stall side rounds will provide in-depth discussion and education on clinical cases and will challenge students to think critically about them. Housing will be provided.

**Last Four Terms Offered:** Summer 2025

Schedule of Classes

**VTMED 6635 - Small Animal Urgent Care (2 Credits)**

The primary objective of this rotation is for veterinary students to act as student veterinarians to receive, evaluate and treat urgent care (reduced acuity) level patients. Experience will include history taking, physical exams, diagnostic and treatment plan development and implementation, incorporation of financial considerations in treatment planning in accordance with practicing along a spectrum of care, nursing care/technical skills such as phlebotomy, radiology, bandaging, laboratory skills, pharmacy/drug selection and client communication. All experience will be with the consultation and guidance of an urgent care DVM. In the absence of urgent care cases during a shift, students will support emergency cases, serving in a secondary support role under the supervision of a DVM.

**Last Four Terms Offered:** Summer 2025

Schedule of Classes

**VTMED 6722 - Aquavet I: Introduction to Aquatic Veterinary Medicine (4 Credits)**

Sponsored by Cornell University. Introduces veterinary students to aquatic animal medicine. The aquatic environment is described and visited on field trips. Specific aspects of the comparative anatomy, physiology, nutrition, microbiology, pathology, and medicine of a variety of marine and freshwater species are discussed. Some emphasis is placed on systems of aquaculture. The specific diseases of a few selected species are presented as examples. The course is taught by an invited faculty of 35 individuals who are leaders in their respective fields of aquatic animal medicine. Students present seminars on appropriate topics.

**Course Fee:** Course Fee, TBA. TBA.

**Last Four Terms Offered:** Summer 2025, Summer 2024, Summer 2023, Summer 2022

Schedule of Classes

**VTMED 6724 - Senior Seminar (0.5 Credits)**

Attendance at 10 of the senior seminar sessions presented during the semester is required for completion of this course. Selected class members will serve as moderators for the senior seminar presentations. Other students will take brief on-line quizzes covering the information supplied in the seminars for the week. All students will pose questions on-line to the seniors presenting the seminars.

**Enrollment Information:** Enrollment limited to: first-, second-, and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Fall 2024, Spring 2024, Fall 2023

Schedule of Classes

**VTMED 6731 - Behavior Problems of Small Animals (1 Credit)**

The goal of this course is to give veterinary students the ability to treat common behavior problems of cats and dogs. Environmental management, behavior modification, and pharmacological treatments for behavior problems are described. History-taking, counseling, and follow-up methods also are presented.

**Prerequisites:** one semester of veterinary curriculum.

**Enrollment Information:** Enrollment limited to: first-, second-, and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes



**VTMED 6733 - Veterinarians and Food-Animal Production Systems: An Introduction (1 Credit)**

This seminar course uses an interactive format and multiple experts from their fields to introduce future veterinarians to various food animal production systems, how veterinarians interact with them, and the synergy between these systems and veterinarians in society. Each week the production structure of the dairy, beef, swine, poultry, or aquaculture industry, veterinarians' role in them, and career opportunities and expectations will be discussed. The offering is intended for first- or second-year students so that they can plan appropriately to take additional courses or set up externships in the following years.

**Enrollment Information:** Enrollment limited to: first- and second-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6734 - Companion Animal Welfare Issues (1 Credit)**

Despite significant improvement being made over the last 20 years, homelessness remains one of the largest welfare issues for dogs and cats in this country with an estimated 3-4 million dogs and cats entering US animal shelters annually. While puppies and kittens and healthy adult dogs and cats are still euthanized in some shelters, euthanasia rates have dropped remarkably in the last decade. However, many animals are still bred and sold in the US in less than ideal conditions. The large population of free-roaming and feral cats is both a cause and effect of feline overpopulation; approaches to cat control are controversial and emotionally charged. Animal cruelty, abuse and neglect, including animal fighting and hoarding, represent issues with which veterinarians are becoming increasingly engaged in their communities. The number of well-intentioned pet owners seeking exotic companion animals as pets is increasing. As our community expands globally, welfare issues from abroad are also becoming more apparent. Other controversial issues that impact companion animal welfare include: non-therapeutic/elective surgeries, access to veterinary care, and quality of life measures with advancing technologies in veterinary medicine. The goal of the course is to provide the tools needed for veterinary students to assess the welfare of the companion animals they treat; and to provide information that enables them to begin developing their positions on some of the common companion animal welfare issues, allowing them to assume leadership roles with regards to such issues in their future communities.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6735 - Conservation Medicine (1.5 Credits)**

Conservation Medicine will introduce students to the basic concepts of free-ranging and captive wildlife conservation and will engage veterinary students in diverse issues linking global biodiversity conservation and sustainable development. The course will present information not included in other courses within the curriculum that is fundamental for veterinarians contemplating a career in Conservation Medicine, Wildlife Health, or Zoological Medicine. Students will learn how wildlife populations are regulated by their environment, and how such populations are managed and assessed. Various habitat preservation strategies will be presented and discussed, as well as ex situ strategies for critically endangered species. One goal of the course is to introduce students to the many career paths available to them that are related to wildlife conservation by introducing them to various faculty who work on conservation through diverse approaches. Grades will be based on individual student papers and group presentations, as well as participation.

**Enrollment Information:** Enrollment limited to: first-, second-, and third-year veterinary students.

**Exploratory Studies:** (CU-SBY)

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6736 - Pet Loss and Bereavement Counseling Course (0.5 Credits)**

This course introduces veterinary students to the key issues related to the loss of a companion animal and bereavement counseling. The course provides a structured background to assist students in developing the necessary skills to deal with clients and the grieving process. Students will participate in Cornell University's Pet Loss Support Hotline, a telephone-based community outreach program designed to provide support to callers grieving the loss of a companion animal. Students actively participate in the prerequisite 9 hours of training in the Fall Semester, followed by hands-on experience staffing the Pet Loss Support Hotline. Requirements include attendance at both a Pet Loss Support Hotline sponsored lecture (usually scheduled in the evening) and a rounds discussion session, a case log of calls received and a one page case report.

**Enrollment Information:** Enrollment limited to: veterinary students.

**Exploratory Studies:** (CU-CEL)

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6737 - International Experiences in Wildlife Health and Conservation (1-2 Credits)**

The goal of the course is to provide students with the opportunity to learn about various non-native species and to gain hands on experience working with these animals in a safe and supportive environment. Students will also have the opportunity to learn about local cultures and, through lectures, discussions and site visits, learn how the work that wildlife sanctuaries, refuges, and bioparks in these developing nations is helping to conserve their natural resources. Students will be graded on participation in daily clinical activities and case rounds, teamwork, organizational skills, medical records, professionalism, and punctuality. The course is currently being taught in Central America (Belize).

**Enrollment Information:** Priority given to: students who have volunteered at the Janet L. Swanson Wildlife Health Center.

**Exploratory Studies:** (CU-CEL, CU-ITL, CU-SBY)

**Last Four Terms Offered:** Winter 2025, Winter 2024, Summer 2023, Winter 2023

Schedule of Classes

**VTMED 6739 - Overview of Complementary Therapies in Veterinary Medicine (0.5 Credits)**

This course will introduce the veterinary student to numerous complementary and alternative modalities currently being offered by veterinarians or requested by clients. Concerns and controversies will be discussed for each modality, along with how training can be acquired. Topics will include acupuncture, chiropractic, herbal medicine, rehabilitation and physical therapy, philosophies of energy medicine, homeopathy, integrative nutrition and nutraceuticals. Critical evaluation of the evidence for efficacy of these treatments will be emphasized, along with the current understanding of the contribution of the placebo effect to apparent response to treatment. The first 4 weeks of the course will emphasize large animals while the second 4 weeks emphasize small animals. Students may enroll in one or both portions of the class.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6740 - Seminar in Topics of Global Veterinary Medicine (0.5 Credits)**

This seminar course that allows students to present their work in international veterinary medicine, and to discuss aspects of interest of global or international veterinary medicine among their peers. It will be a forum to present previous works and generate ideas for future international projects. Students will create and deliver presentations describing their experiences in projects in areas abroad during veterinary school. These presentations may be summaries of their clinical work or research, or presentations of topics such as animal welfare issues or socioeconomic issues of veterinarians in countries abroad. Students who have not been on a trip abroad may write about a topic of interest in a geographic area of interest, such as emerging diseases and outbreaks, cultural issues regarding animal care.

**Enrollment Information:** Enrollment limited to: first-, second-, and third-year veterinary students.

**Exploratory Studies:** (CU-ITL)

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6741 - Wellness and Sterilization Clinics Abroad (1-2 Credits)**

This course aims to provide students an opportunity to build clinical skills in settings abroad. Working with local grassroots animal welfare organizations and pet owners in small communities, we will learn how to communicate with them to take medical histories and educate them on aspects of pet health and wellness, and learn more about the human/animal bond in other countries. Students will participate in sterilization surgery procedures with supervision and instruction of veterinarians. Participants will also have opportunities to learn about local cultures and veterinary issues in the areas visited.

**Enrollment Information:** Enrollment limited to: veterinary students.

**Exploratory Studies:** (CU-CEL, CU-ITL)

**Last Four Terms Offered:** Summer 2025, Winter 2025, Summer 2024, Winter 2024

Schedule of Classes

**VTMED 6743 - One Health: Conservation with Communities (2 Credits)**

This course integrates life sciences, social sciences, medical sciences, and the humanities to explore the concept of One Health, the idea that the health of the environment, animals and people are all inextricably linked. The course provides a comprehensive framework that will enable students to critically examine their perspectives and expand their view of the world, skills that are essential to a career in interdisciplinary Conservation Medicine. This course is also offered to undergraduate students, and preparatory for a summer course under the Cornell's Engaged Learning Program.

**Prerequisites:** VTMED 6735.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students.

**Exploratory Studies:** (CU-CEL, CU-ITL)

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6744 - One Health Laboratory: Conservation with Communities Field Experience (3 Credits)**

The One Health Laboratory field course is organized in 2 courses (enrollment in both is required): Part I is the engaged-learning experience at one of the field sites in Indonesia (Ujung Kulon National Park) or Africa (Jane Goodall Institute in Republic of Congo or Uganda). The format for the field course is an applied research project that will further understanding of a problem in conservation that has impact for local people in farming or forestry conservation that has impact for local people in farming or forestry communities, and the wild species that share these working landscapes. Students will be chose during the required course Conservation with Communities for One Health and work in teams (1 DVM, 2 undergraduate students for each field site).

**Prerequisites:** VTMED 6743.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students. Permission of instructor required.

**Exploratory Studies:** (CU-CEL, CU-ITL)

**Last Four Terms Offered:** Summer 2025, Summer 2024, Summer 2023, Summer 2022

Schedule of Classes

**VTMED 6745 - One Health: Conservation with Communities- Seminars (1 Credit)**

Conversations in Conservation is a fall semester debriefing course in which students will reflect and expand learning through presentations of projects (seminars) and experiences, case-directed discussions using experiential journal notes and topical readings from relevant literature, and student-led discussion of impacts/solutions to local problems, with participation of listed faculty and community partners.

**Prerequisites:** VTMED 6743 and VTMED 6744 or permission of instructor.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students. Permission of instructor required.

**Exploratory Studies:** (CU-CEL, CU-ITL)

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2019  
Schedule of Classes

**VTMED 6746 - Food Animal Welfare (1 Credit)**

This one credit S/U course will provide an overview of current topics in food animal welfare. Emphasis will be placed on veterinary issues and public perceptions of welfare of swine, poultry, fish, small ruminants, and beef and dairy cattle. Transport, slaughter, and euthanasia of all species will also be addressed. A welfare audit exercise will be conducted at the Veterinary College Teaching Dairy. Each student will be asked to do in-depth reading on a topic of importance to industry and veterinarians and to prepare a 3 to 5 page paper or give a presentation in class.

**Enrollment Information:** Enrollment limited to: first-, second- and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6748 - Expanding Horizons (4 Credits)**

The Expanding Horizons course offers Cornell veterinary students an opportunity to gain experience in international veterinary medicine and engage in novel veterinary medicine experiences outside of the United States. Students spend the summer (typically 8-10 weeks) or clinical blocks (6 weeks) participating in an independent veterinary research project or veterinary experience in a foreign country. Students are responsible for identifying contacts in the country of interest, developing a project idea, and submitting a written project proposal to the International Experiences Committee for consideration. College faculty and the Office of Student and Academic Services may assist and advise students on project development and preparation for the experience. Students in the course will be assessed through quizzes, reflections, discussion board posts, and written communication products.

**Enrollment Information:** Application required.

**Exploratory Studies:** (CU-CEL, CU-ITL)

**Last Four Terms Offered:** Summer 2025, Spring 2025, Fall 2024, Summer 2024

Schedule of Classes

**VTMED 6749 - Agile Innovation in Animal Health-Hackathon (1 Credit)**

The course is designed to complement the Animal Health Hackathon and will focus on the challenges and opportunities related to animal health entrepreneurship and innovation. Veterinary students will work in diverse teams with students from other programs on campus to gain a broader perspective of both the challenges (e.g., organizational and institutional) and opportunities (e.g., unmet customer needs and possibilities for future ventures) in this sector. Students will learn and apply team innovation processes, business model innovation, design thinking, creativity management, product pitches, data analysis, critical thinking, and product innovation. To receive a Satisfactory grade for the course, students must satisfactorily complete all three mandatory course components: 1) must attend and be an active participant in all three Agile Innovation lectures (two pre-Hackathon and one post), 2) must fully participate in a Hackathon team from team formation to pitch delivery, and 3) must satisfactorily complete all post-Hackathon course assignments. Failure to satisfactorily complete any of the three course components will result in an Unsatisfactory grade for the course.

**Prerequisites:** Requires concurrent participation in the Cornell Animal Health Hackathon.

**Enrollment Information:** Enrollment limited to: veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6750 - The Healer's Art (0.5 Credits)**

Compassion fatigue in veterinary medicine has effected a broad search for etiologies and effective educational interventions. Recent research suggests that finding personal meaning in one's daily work is highly correlated with diminished compassion fatigue (lack of meaning is considered a main cause of compassion fatigue). The Healer's Art is a nationally recognized curriculum that provides opportunities to explore meaning and helps participants to develop self-care and to establish a foundation for resilience. Through an interactive, process-based program, participants can create a supportive and judgment-free community, allowing inquiry between DVM students and graduate DVM facilitators. This course is scheduled in the evening to prevent conflict with other courses and to allow a more relaxed and stress free time for self-reflection, discovery and sharing.

**Enrollment Information:** Enrollment limited to: second- and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes

**VTMED 6751 - Professional Competencies (2 Credits)**

**Last Four Terms Offered:** Spring 2023

Schedule of Classes

**VTMED 6752 - Veterinary Forensic Medicine and Pathology (1 Credit)**

Veterinarians are uniquely qualified to recognize potential animal cruelty and are required to report suspected cruelty in the state of NY. The definition of cruelty varies from state to state, and prosecution willingness varies by county. Although forensic medicine and pathology rely on the same basic principles and methods used for conventional veterinary medical investigations, the analytical framework and purpose differ significantly, as do the risks and rewards. Through lectures from the pathology and shelter medicine faculty as well as ASPCA forensic department guests, this course provides students with the theoretical framework and practical information needed to participate in animal cruelty investigations for live and deceased animals.

**Enrollment Information:** Enrollment limited to: third-year veterinary students. Permission of instructor required.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023  
Schedule of Classes

**VTMED 6754 - Small Animal Euthanasia: Clinical Communications and Practice (1 Credit)**

This course is designed to help you begin to build comfort with end-of-life care; feel more prepared to provide euthanasia; and supply practice discussing euthanasia with clients. Given that, at most, 25% of veterinary students graduate with first-hand euthanasia experience (McVety, 2017) it is not surprising that the majority of veterinary graduates feel neither competent nor comfortable with the technical and professional skills involved with euthanasia (Tinga, et al., 2001). This course is meant to address that gap. Through immersive laboratories and active-learning-focused lectures, students will (1) expand their knowledge and (2) refine clinical communication and practical skills as they relate to veterinary euthanasia of companion animals.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023  
Schedule of Classes

**VTMED 6755 - Introduction to Laboratory Animal Medicine (2 Credits)**

This course introduces veterinary students to the field of laboratory animal medicine. Topics include ethics of research animal use, regulations and guidelines, occupational health and safety, biology and medicine of laboratory animal species, facility design and animal housing, alternatives to using animals in research, intervention points, and research models. All primary and some secondary laboratory animal species in the ACLAM role delineation document are discussed (mice, rats, rabbits, nonhuman primates, dogs, pigs, zebrafish, cats, hamsters, and guinea pigs). Course content is presented in an interactive format, using a combination of reading assignments, interactive discussions, videos, and scenarios. Students will be expected to give a short presentation relevant to the field during the last class session.

**Enrollment Information:** Enrollment limited to: first-, second-, and third-year veterinary students.

**Last Four Terms Offered:** Spring 2023  
Schedule of Classes

**VTMED 6756 - Advanced Topics in Clinical Behavioral Medicine (1 Credit)**

This course is meant to provide students with a review of the literature on common behavior issues, which will be applied to clinical cases in the Behavior Service. The class will involve weekly 2-hour journal review sessions. The information then will be applied to clinical cases seen with the Behavior Service. Each student will be required to lead a discussion session and observe at least two clinical behavior cases before leading a case with the Behavior Service. Students who lead a case will be responsible for communicating with the pet owners to obtain a detailed history, assigning a diagnosis, and developing a comprehensive treatment plan.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023  
Schedule of Classes

**VTMED 6757 - A History of Surgery (0.5 Credits)**

This course aims to provide a general overview of the history of surgery through delving into historical figures, concepts, and techniques. Through introducing this historical perspective, the hope is that both a fuller understanding as well as greater appreciation for surgical concepts and techniques is had. The primary focus of this course is the history of human medicine and surgery. Veterinary correlates will be introduced where applicable. Themes that we will focus on during this course include resilience and quality.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025  
Schedule of Classes

**VTMED 6758 - FARVets Academy Domestic Community Cat Clinics (0.5 Credits)**

Students will join the FARVets program, including a series of lectures culminating in participating in two community cat sterilization clinics in New York State.

**Prerequisites:** completion of Milestone II.  
Schedule of Classes

**VTMED 6771 - Personal Finance (2 Credits)**

This course intends to teach essential financial skills regarding personal debt management, budgeting, and savings, with an emphasis in the formulation of financial decision-making strategies that effectively utilize acquired financial competence to increase the student's level of financial literacy. Topics include financial planning, budgeting, managing / paying off student and personal debt, goal creation, strategy and decision making, understanding credit and investment products, interest rates, simple and compounding interest, time value of money concepts, opportunity costs, savings and planning for the future, savings vehicles, salary and wages, employment benefits, value of complete compensation packages, and income taxes.

**Enrollment Information:** Enrollment limited to: first, second, and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025  
Schedule of Classes

**VTMED 6772 - Managerial Accounting and Inventory Management (2 Credits)**

This course intends to teach essential concepts of managerial accounting and lean inventory management. We will define the components of financial statements and explore their use for strategic decision making. Topics include financial statements, profit and cash flow, financial management and analysis, forecasting, budgeting, leverage, capital, funding, activity-based costing, capital expenditure analysis, TVM, discounted cash flow analysis, and practice valuation. We will also define the costs associated with purchasing, ordering, and holding inventory as related to veterinary practices. Topics include inventory costs, ABC analysis, demand management and forecasting, ordering strategies, safety stock, re-order point, order quantity, distributor specials, and management performance analysis. This course is a prerequisite for the Practice Ownership and Management course offered in 3rd year.

**Enrollment Information:** Enrollment limited to: second and third-year veterinary students.

**Last Four Terms Offered:** Spring 2025

Schedule of Classes

**VTMED 6773 - Services Marketing (1 Credit)**

This course intends to teach essential concepts of services marketing with an emphasis on helping develop customer service skills that lead to customer satisfaction and business success / growth. We will explore quality improvement processes and strategies to maintain high quality of service. Concepts include customer service skills, assessment of customer satisfaction, market segment, target market, positioning strategy, market mix, service recovery system, marketing opportunities and research tools, and administration / analysis of customer surveys for business decision making amongst others.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025

Schedule of Classes

**VTMED 6774 - Veterinary Contracts and Negotiation (1 Credit)**

This course intends to teach essential legal concepts surrounding veterinary employment contracts as it relates to salary, employee benefits, taxation of compensation packages, and enforceability of contract line items, specifically around termination, restrictive covenants, and liquidated damages. It will explore the art and science of contract negotiation, including the legal components of the negotiation interest list and the general process of contract negotiation within the veterinary profession.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025

Schedule of Classes

**VTMED 6775 - Medical Records and Informed Consent (1 Credit)**

This course intends to teach essential legal concepts surrounding the business and legal reasons for proper medical records and the type of documentation that creates proper medical records. It will explore the regulation of veterinary licensure by state board licensing authority, the requirements for obtaining and maintaining veterinary licensure, and the concepts surrounding compliant behavior and consumer complaints. Students will explore the laws impacting drug use within veterinary medicine, including the use of legend, compounded, and extra-label-use drugs. The course will additionally explore the legal requirements to obtain informed consent from owners before treatment.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025

Schedule of Classes

**VTMED 6776 - Practice Ownership and Management (1.5 Credits)**

This course intends to teach essential concepts of establishing and managing a veterinary practice by pairing classroom deliveries with guided exercises exploring realities of veterinary practice. Topics include practice ownership models and pathways, types of business organization, business ownership, financial and organizational management, operational strategy and efficiency, market analysis, services and fee structures, asset needs, decisions on capital and funding for equipment / facilities, leverage, capital expenditure analysis, time value of money, management of human capital, interpersonal communication, business implications of the veterinary medicine landscape, business and personal risk management, leadership, and practice value creation. Accounting and Inventory Management course is a prerequisite.

**Prerequisites:** VTMED 6772.

**Enrollment Information:** Enrollment limited to: third-year veterinary students.

**Last Four Terms Offered:** Spring 2025

Schedule of Classes

**VTMED 6778 - CVBE Capstone I (0.5 Credits)**

This course intends to create an individual project-based experience in veterinary business that expands and incorporates the knowledge acquired through prerequisite courses that focus on financial literacy, personal and professional development, financial and organizational management, and entrepreneurship. Students who meet course prerequisites will apply for course enrollment directly to instructor by supplying project proposal. Course students will develop a project in collaboration with a CVBE stakeholder that will utilize and implement veterinary business and management skills. Students will complete their project in a manner that does not interfere with clinical responsibilities. Students will finalize their capstone experience through delineated deliverables.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students. Permission of instructor required.

**Last Four Terms Offered:** Fall 2024

Schedule of Classes



**VTMED 6779 - CVBE Capstone II (0.5 Credits)**

This course intends to create an individual project-based experience in veterinary business that expands and incorporates the knowledge acquired through prerequisite courses that focus on financial literacy, personal and professional development, financial and organizational management, and entrepreneurship. Students who meet course prerequisites will apply for course enrollment directly to instructor by supplying project proposal. Course students will develop a project in collaboration with a CVBE stakeholder that will utilize and implement veterinary business and management skills. Students will complete their project in a manner that does not interfere with clinical responsibilities. Students will finalize their capstone experience through delineated deliverables.

**Prerequisites:** VTMED 6778.

**Enrollment Information:** Enrollment limited to: fourth-year veterinary students. Permission of instructor required.

**Last Four Terms Offered:** Spring 2025

Schedule of Classes

**VTMED 6895 - 3rd Year Clinical Experience (2-4 Credits)**

Students will spend 2 weeks (90 hours) working on a clinical service or nursing care unit. Responsibilities vary depending on service/unit structure. Up to 10 hours per week may involve independent study or research. Evening and weekend shifts may be required. Each participating service or unit will have its own section of the course with a faculty instructor responsible for oversight of the experience and assigning the grade.

**Prerequisites:** VTMED 5500.

**Last Four Terms Offered:** Spring 2025, Spring 2024

Schedule of Classes

**VTMED 6896 - Topics in Veterinary Medicine (0.5-4 Credits)**

This course provides an opportunity for faculty to pilot a new course, or to offer a new course on a temporary basis and/or after the deadline for course submission has passed.

**Enrollment Information:** Enrollment limited to: veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Summer 2024

Schedule of Classes

**VTMED 6897 - Teaching Projects in Veterinary Medicine (0.5-3 Credits)**

This is a variable credit course in which students contribute to the teaching of a course in the veterinary curriculum (VTMED). Student responsibilities may include providing instructional support in laboratories, preparing teaching material, giving presentations, providing feedback to students on assignments, grading, or performing other appropriate tasks. Students are assessed based on the quality of performance in their responsibilities. Students are required to submit a brief reflection summarizing what they have accomplished and learned as a result of the teaching project. Projects must be submitted via the online application process by the applicable term deadlines.

**Enrollment Information:** Enrollment limited to: veterinary students.

**Last Four Terms Offered:** Spring 2025, Winter 2025, Fall 2024, Spring 2024

Schedule of Classes

**VTMED 6898 - Special Projects in Veterinary Medicine (0.5-4 Credits)**

Students work individually with a CVM faculty member to pursue an area of particular interest that is not part of the established curriculum. Specific course objectives and course content should be relevant to career interests in veterinary medicine and should reflect the expertise of the faculty. Students are required to submit a brief reflection summarizing what they accomplished and learned as a result of the special project. Projects must be submitted via the online application process by the applicable application deadline for each term.

**Enrollment Information:** Enrollment limited to: veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes

**VTMED 6899 - Research Projects in Veterinary Medicine (0.5-4 Credits)**

Students work individually in the research environment of a CVM faculty member involved in veterinary or biomedical research. Specific course objectives and course content should be relevant to career interests in veterinary medicine and should reflect the expertise of the faculty. Students are required to submit a brief reflection summarizing what they accomplished and learned as a result of the research opportunity. Projects must be submitted via the online application process before the first day of the term.

**Enrollment Information:** Enrollment limited to: veterinary students.

**Last Four Terms Offered:** Summer 2025, Spring 2025, Winter 2025, Fall 2024

Schedule of Classes