MEDICAL SCIENCES - VETERINARY MEDICINE (MED SC-V)

MED SC-V 570 – ANIMAL HEALTH HISTORY RESTRAINT AND PHYSICAL EXAMINATION
1 credit.

Introduces use of the problem oriented medical record concepts, history taking, physical examination and basic restraint, and diagnostic and therapeutic techniques in large and small domestic animals.
Requisites: Declared in Doctor of Veterinary Medicine with first year standing
Repeatable for Credit: No
Last Taught: Spring 2025
Learning Outcomes: 1. Demonstrate appropriate restraint of dogs, cows, and horses.
Audience: Undergraduate

2. Demonstrate safe and appropriate techniques for handling blood collection devices (needles, syringes, vacutainer sample tubes).
Audience: Undergraduate

3. Develop a systematic technique for physical examination of small and large animals.
Audience: Undergraduate

4. Demonstrate knowledge of normal values for temperature, pulse, respiratory rates for dogs, cats, horses, and cows.
Audience: Undergraduate

5. Describe and summarize physical examination findings in a format suitable for use in medical records.
Audience: Undergraduate

6. Collect and organize a comprehensive health history on a canine or feline patient.
Audience: Undergraduate

MED SC-V 576 – SMALL ANIMAL EMERGENCY AND CRITICAL CARE I
1 credit.

Introduction to to various topics of emergency and critical care medicine.
Requisites: Declared in Doctor of Veterinary Medicine
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Recognize how to triage an ill/injured dog or cat
Audience: Undergraduate

2. Recognize signs of shock in a dog
Audience: Undergraduate

3. Recognize signs of shock in a cat
Audience: Undergraduate

4. Recognize methods of toxin decontamination
Audience: Undergraduate

5. List basic stabilization techniques for unstable patients
Audience: Undergraduate

MED SC-V 577 – SMALL ANIMAL EMERGENCY AND CRITICAL CARE II
1 credit.

Cover various topics in emergency and critical care medicine. Several areas of emergency and critical care medicine will be presented.
Requisites: MED SC-V 576
Repeatable for Credit: No
Last Taught: Fall 2025
Learning Outcomes: 1. Describe how to triage an ill/injured dog or cat
Audience: Undergraduate

2. Identify point of care diagnostics and when they should be utilized
Audience: Undergraduate

3. Create a prioritized problem list following a triage exam and initial diagnostics
Audience: Undergraduate

4. Recognize signs of shock in a dog
Audience: Undergraduate

5. Recognize signs of shock in a cat
Audience: Undergraduate

MED SC-V 625 – VETERINARY DIAGNOSTIC AND THERAPEUTIC TECHNIQUES
0-1 credits.

Formal laboratory instruction. Detailed examination techniques and diagnostic and therapeutic procedures relevant to veterinary procedures on all species of domestic animals.
Requisites: Declared in Doctor of Veterinary Medicine with third year standing
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Apply multiple medical techniques and skills necessary for practice.
Audience: Undergraduate

2. Recognize multiple medical tools utilized in practice
Audience: Undergraduate

3. Identify different specialties and specific procedures associated with that specialty.
Audience: Undergraduate

MED SC-V 629 – VETERINARY NUTRITION
1 credit.

Presents awareness of the importance of nutrition in the veterinary practice.
Requisites: Declared in Doctor of Veterinary Medicine with first year standing
Repeatable for Credit: No
Last Taught: Spring 2025
Learning Outcomes: 1. Explain the importance of clinical nutrition in veterinary practice
Audience: Undergraduate

2. Articulate the role of nutrition in maintaining animal health and productivity
Audience: Undergraduate

3. Integrate clinical nutrition information with basic biochemical and physiological information
Audience: Undergraduate

4. Understand nutrient groupings, basic nutrient definitions, and nutrient requirements well enough to have a solid foundation for future clinical nutrition instruction
Audience: Undergraduate

5. Evaluate the basic nutritional adequacy of a diet fed to an animal
Audience: Undergraduate

MED SC-V 632 – COMPANION ANIMAL AND EQUINE MEDICINE I
6 credits.

Basic concepts of well-animal companion animal and equine health care, nutrition, and reproduction will be presented. Discussion of the etiology, pathophysiology, diagnosis, treatment, and prevention of important internal medicine and reproductive diseases in these species will be emphasized.
Requisites: Declared in Doctor of Veterinary Medicine with third year standing
Repeatable for Credit: No
Last Taught: Fall 2025
Learning Outcomes: 1. Recognize clinical signs, diagnose and treat common diseases in small animals
Audience: Undergraduate

2. Recognize clinical signs for common disease presentations in companion animals
Audience: Undergraduate

3. Describe important clinical features of diseases that aid in recognition in companion animals
Audience: Undergraduate

4. Construct an appropriate diagnostic plan to identify common diseases in companion animals
Audience: Undergraduate

5. Create a refined differential diagnosis list for common diseases in companion animals
Audience: Undergraduate

6. Identify treatment options for common diseases in companion animals based on patient needs, available resources, and client circumstances
Audience: Undergraduate

MED SC-V 633 – COMPANION ANIMAL AND EQUINE MEDICINE II
6 credits.

Basic concepts of well-animal companion animal and equine health care, nutrition, and reproduction will be presented. Discussion of the etiology, pathophysiology, diagnosis, treatment, and prevention of important internal medicine and reproductive diseases in these species will be emphasized.
Requisites: Declared in Doctor of Veterinary Medicine with third year standing
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Recognize clinical signs, diagnose and treat common diseases in small animals and horses.
Audience: Undergraduate

2. Recognize clinical signs for common disease presentations in companion animals and horses.
Audience: Undergraduate

3. Describe important clinical features of diseases that aid in recognition in companion animals and horses.
Audience: Undergraduate

4. Construct an appropriate diagnostic plan to identify common diseases in companion animals and horses.
Audience: Undergraduate

5. Create a refined differential diagnosis list for common diseases in companion animals and horses.
Audience: Undergraduate

6. Identify treatment options for common diseases in companion animals and horses based on patient needs, available resources, and client circumstances.
Audience: Undergraduate

MED SC-V 634 – FOOD ANIMAL MEDICINE
5 credits.

Basic principles for food animal species. Integrates food animal medicine, theriogenology, nutrition and preventive medicine concepts.
Requisites: Declared in Doctor of Veterinary Medicine with third year standing
Repeatable for Credit: No
Last Taught: Fall 2025
Learning Outcomes: 1. Diagnose and treat medical and surgical conditions of food and fiber animals at the competency level expected of an Upper Midwest mixed animal practitioner
Audience: Undergraduate

2. Recommend protocols for the prevention of major infectious and metabolic diseases that are appropriate for different food and fiber animal production systems
Audience: Undergraduate

3. Design programs that optimize reproductive efficiency in food and fiber animal operations
Audience: Undergraduate

4. Integrate food animal medical and surgical principles with considerations of animal welfare, environmental impact, and public perception of animal agriculture
Audience: Undergraduate

MED SC-V 635 – SWINE MEDICINE
1 credit.

Focuses on basic swine medicine clinical skills including diagnosis and treatment of common swine diseases that present in individual pigs and populations. Influences of production practices and farm structure will be introduced as they impact the successful practice of swine medicine. Additionally, regulatory influences unique to swine veterinary medicine and principles of biosecurity/biocontainment and bioexclusion will be discussed.
Requisites: Declared in Doctor of Veterinary Medicine with third year standing
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Demonstrate knowledge (commensurate with an entry-level mixed animal practitioner in the Upper Midwest) about basic swine medicine principles.
Audience: Undergraduate

2. Apply and integrate knowledge from medicine and epidemiology so that they can investigate disease outbreaks in swine operations.
Audience: Undergraduate

3. Acquire sufficient knowledge to pass the swine medicine questions on the NAVLE licensure exam.
Audience: Undergraduate

4. Define basic swine science terminology, farm structure and expected biological performance.
Audience: Undergraduate

5. Summarize the unique characteristics of swine populations that influence diagnosis and treatment of disease.
Audience: Undergraduate

6. Perform a systematic evaluation of a swine population that identifies the correct individual animals for physical exam or diagnostic testing.
Audience: Undergraduate

7. Describe the parameters, and the normal ranges expected for those parameters, on a physical exam of a healthy pig.
Audience: Undergraduate

8. Identify the correct restraint procedure for a specific age and class of pig.
Audience: Undergraduate

9. Describe the best testing strategy for a population given a common swine disease and diagnostic objective.
Audience: Undergraduate

10. Recommend a vaccination program to a swine farmer.
Audience: Undergraduate

11. Synthesize the following information to determine a case specific treatment plan for common pathogens found in swine: clinical relevance to swine health, zoonotic potential, clinical significance of strain variation in etiology, preferred diagnostic test, usefulness of serology, usefulness of oral fluids, efficacy of vaccination, and availability of legal antimicrobial treatments.
Audience: Undergraduate

MED SC-V 667 – SMALL ANIMAL NEUROLOGY
2 credits.

Provide instruction and guidance in obtaining a complete neurological history, interpreting examinations, diagnostic tests and rationally selecting an appropriate diagnosis and effective management for neurology cases.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Perform a complete neurologic examination to localize neurologic lesions and explain relevant basic neuroanatomical pathways
Audience: Undergraduate

2. Develop a prioritized differential diagnosis and refined problem list for general neurological lesion localizations based on the neurologic exam
Audience: Undergraduate

3. Explain the differences between general neurologic imaging techniques and select appropriate diagnostic imaging for a patient
Audience: Undergraduate

4. Understand the pharmacokinetics, standard dosage, and recommended monitoring of patients treated long-term with antiepileptic drugs
Audience: Undergraduate

5. Administer appropriate drugs to treat status epilepticus and identify and monitor impacts of antiepileptic drugs in long-term patients
Audience: Undergraduate

6. Effectively communicate with clients the appropriate treatment options and medical management for patients with neurologic diseases
Audience: Undergraduate

7. Recognize situational limitations and offer or recommend referrals for a patient as needed
Audience: Undergraduate

MED SC-V 668 – CLINICAL DERMATOLOGY ROTATION
2 credits.

Develop the technical, clinical and knowledge skills to effectively examine, diagnose and manage the dermatology patient.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Perform a client interview and obtain historical data that is necessary and pertinent to establishing the cause of skin disease in a dog or cat
Audience: Undergraduate

2. Identify and describe the major lesion types that may be found during dermatologic examination of a dog or cat
Audience: Undergraduate

3. Demonstrate performance of flea combing, skin scraping, and trichogram procedures as used to assess a patient for parasitic skin disease
Audience: Undergraduate

4. Perform and interpret the results of a skin cytology, combine the results with gross observations on dermatologic examination, and interpret these findings to suggest presence/absence and etiologic diagnosis of either yeast or bacterial skin infection, including providing initial treatment recommendations
Audience: Undergraduate

5. Perform and interpret the results of an ear cytology, using the results to suggest both an etiologic diagnosis of the condition and an appropriate initial treatment regimen
Audience: Undergraduate

6. Outline a logical diagnostic approach sequence (including examinations and tests to be performed) for a dog with a primary owner complaint of pruritic skin disease, aimed at creating a focused list of differential diagnoses specific to the pet's particular condition
Audience: Undergraduate

7. Provide a list of differential diagnoses for a dog with an owner primary complaint of nonpruritic, generalized, noninflammatory hair loss, along with diagnostic tests that would be useful to rule out each of the proposed differential diagnoses
Audience: Undergraduate

8. Describe the role of "foundation" and "accessory" treatments in canine atopic dermatitis; list the main available treatment options for each of these categories of treatments along with their advantages, disadvantages, contraindications, and potential adverse effects
Audience: Undergraduate

9. List the four main reaction patterns in feline skin that are suggestive of a hypersensitivity disorder, and tests that might be used to establish a definitive diagnosis for these patterns
Audience: Undergraduate

MED SC-V 669 – SMALL ANIMAL CARDIOLOGY ROTATION
2 credits.

Diagnostic techniques and therapy available for the management of cardiology patients.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Describe and apply appropriate techniques for full physical examinations on small animal cardiology patients
Audience: Undergraduate

2. Observe video recordings to identify techniques and procedures for less commonly seen diseases and abnormalities in cardiology
Audience: Undergraduate

3. Accurately perform a blood pressure measurement on small animal veterinary patients
Audience: Undergraduate

4. Evaluate thoracic radiographs and ECGs using appropriate systematic approaches to identify common abnormalities
Audience: Undergraduate

5. Describe and justify routine therapeutic procedures for arrhythmias and congestive heart failure in small animals
Audience: Undergraduate

MED SC-V 670 – SENIOR ROTATION IN LARGE ANIMAL MEDICINE SERVICE
2 credits.

Diagnosis and medical treatment of diseases of horses, cattle, sheep, goats and pigs. Examine, admit and discharge cases in the Veterinary Medical Teaching Hospital.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Obtain a complete and problem-specific medical history and physical exam
Audience: Undergraduate

2. Identify clinical problems from a history and physical examination
Audience: Undergraduate

3. Create ranked problem and differential diagnoses lists for relevant clinical problems
Audience: Undergraduate

4. Design appropriate diagnostic and therapeutic plans for patients
Audience: Undergraduate

5. Effectively and empathetically communicate with clients and colleagues to coordinate patient care
Audience: Undergraduate

MED SC-V 674 – SENIOR ROTATION IN AMBULATORY SERVICE
2 credits.

Diagnosis, treatment, and recommendation of preventive measures for common medical, surgical and management problems on farms. Examine the environmental influences associated with such problems.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Perform comprehensive physical examination of patients to create viable differential diagnoses.
Audience: Undergraduate

2. Create and adjust a diagnostic and treatment plan based on available resources and client needs.
Audience: Undergraduate

3. Perform clinical tasks and procedures that are commonplace in ambulatory practice.
Audience: Undergraduate

4. Develop individual animal and health management plans including vaccination programs, deworming strategies and nutritional management.
Audience: Undergraduate

5. Recognize communicable zoonotic diseases of animals, including management strategies and appropriate reporting at the state and federal level.
Audience: Undergraduate

6. Describe business management of a multiple person veterinary medical practice, including personnel, finance, pharmaceutical and equipment inventories, client relations and charging and billing for services.
Audience: Undergraduate

MED SC-V 675 – SPECIAL TOPICS
1-5 credits.

Topics vary.
Requisites: Declared in Doctor of Veterinary Medicine
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Develop competence and professional skills in veterinary medicine
Audience: Undergraduate

2. Explore current topics and trends in veterinary medicine
Audience: Undergraduate

3. Developing breadths of experiences related to veterinary medicine
Audience: Undergraduate

MED SC-V 678 – SMALL ANIMAL INTERNAL MEDICINE
2 credits.

Develop the ability to analyze, organize and integrate information effectively to make clinical decisions relating to the diagnosis, prognosis, management and control of diseases.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Obtain both a complete and a problem-specific medical history and physical examination
Audience: Undergraduate

2. Identify clinical problems from a history and physical examination
Audience: Undergraduate

3. Create ranked problem and differential diagnoses lists for relevant clinical problems
Audience: Undergraduate

4. Design appropriate diagnostic and therapeutic plans for patients
Audience: Undergraduate

5. Effectively and empathetically communicate with clients and colleagues to coordinate patient care
Audience: Undergraduate

6. Understand how to document patient plans, procedures, and treatments
Audience: Undergraduate

7. Use appropriate literature to solve clinical questions or scientific problems
Audience: Undergraduate

MED SC-V 679 – SMALL ANIMAL ONCOLOGY
2 credits.

To develop skills in clinical medicine, palpation, interpretation of laboratory data and become acquainted with oncology clientele.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Obtain a complete history and physical exam on oncology patients
Audience: Undergraduate

2. Understand the anatomical location of lymph nodes and basic biology and physical signs of common cancers in dogs and cats
Audience: Undergraduate

3. Demonstrate appropriate use of instrumentation and techniques for measuring masses and general tissue handling and oncological biopsy procedures
Audience: Undergraduate

4. Perform appropriate biopsy fine needle aspirate procedures to determine review cytology of patient samples
Audience: Undergraduate

5. Formulate a diagnostics and therapeutic plan for oncology patients based on available information and abnormal findings on testing and examination
Audience: Undergraduate

6. Model low-stress handling and humane restraint of chemotherapy patients and properly administer therapeutics
Audience: Undergraduate

7. Collaborate with team members to implement effective care for new and recheck oncology patients
Audience: Undergraduate

MED SC-V 699 – DIRECTED STUDY
1-5 credits.

Projects in the laboratory and/or through library work in specific subject areas under the direct guidance of a faculty member.
Requisites: Consent of instructor
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Apply foundational veterinary knowledge and critical thinking to identify problems in veterinary medicine
Audience: Undergraduate

2. Develop professional veterinary medicine skills of interest by performing select techniques and procedures
Audience: Undergraduate

3. Communicate in written and/or verbal reports to veterinary colleagues and supervisors
Audience: Undergraduate

MED SC-V 701 – PRODUCTION MEDICINE I
2 credits.

Visit dairy farms, learn to identify production limiting problems, and develop a priority list based upon economic importance. The farm investigation consists of visual evaluations of farmstead and herd, interpretation of DHI records, and computer analysis of herd records.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Fall 2025
Learning Outcomes: 1. Evaluate medication and vaccine use in dairy calves and fresh cows
Audience: Graduate

2. Use injury and locomotion scoring to evaluate cow comfort and lameness in adult dairy cattle and assess hoof trimming at the herd level
Audience: Graduate

3. Use Microsoft Excel and free online software to perform statistical analysis on health and production data collected from DHIA and DairyCOMP 305
Audience: Graduate

4. Diagnose pregnancy and identify ovarian structures using transrectal palpation. Incorporate reproductive management strategies to improve fertility in dairy herds
Audience: Graduate

5. Provide obstetric manipulations to safely deliver malpositioned and/or oversized calves.
Audience: Graduate

6. Evaluate fresh cow diagnosis and treatment protocols on dairy farms
Audience: Graduate

7. Deliver written and verbal reports to dairy farmers and veterinary colleagues
Audience: Graduate

MED SC-V 703 – PRODUCTION MEDICINE II
2 credits.

Investigate and analyze farm and laboratory data and evaluate recommendations using benefit/cost analyses. Perform milking system, milking procedure, and environmental management evaluations.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2025
Learning Outcomes: 1. Evaluate transition cow risk factors on dairy farms

Audience: Graduate

2. Utilize transrectal ultrasound to diagnose pregnancy and identify ovarian structures and use reproductive management strategies to identify and re-inseminate non-pregnant cows
Audience: Graduate

3. Evaluate barn ventilation, freestall, and tiestall design
Audience: Graduate

4. Create partial budgets to assist farmers' decision making for on-farm management practices
Audience: Graduate

5. Evaluate milking parlor procedures to ensure timely let-down of milk and improve udder health in dairy cattle
Audience: Graduate

6. Use Food Armor® HACCP principles to promote food safety and proper drug use in food animals
Audience: Graduate

7. Deliver written and verbal reports to dairy farmers and veterinary colleagues
Audience: Graduate

MED SC-V 705 – PRODUCTION MEDICINE III-APPLIED DAIRY NUTRITION
2 credits.

Rotation for applying principles of nutrition to dairy practice.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Investigate calf health management programs including nutrition, growth, sanitation, passive transfer, morbidity and mortality
Audience: Graduate

2. Use lung ultrasound to evaluate respiratory health in young cattle
Audience: Graduate

3. Develop on-farm troubleshooting strategies for adult cow and young calf health and performance problems
Audience: Graduate

4. Evaluate robotic milking systems
Audience: Graduate

5. Identify humane methods of euthanasia and provide euthanasia services using captive bolt
Audience: Graduate

6. Assess bull fertility through breeding soundness examinations
Audience: Graduate

7. Deliver written and verbal reports to dairy farmers and veterinary colleagues
Audience: Graduate

MED SC-V 708 – PRE-CLINICAL TOPICS IN VETERINARY MEDICINE
1-3 credits.

Selected topics in veterinary medicine covering materials such as, but not limited to, innovative trends in veterinary medicine, experimental practices, or trending topics in the field.
Requisites: Declared in Doctor of Veterinary Medicine
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, for 50 number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Apply theoretical knowledge to real-world veterinary scenarios and case studies.
Audience: Graduate

2. Demonstrate competence in integrating concepts and skills to solve practical veterinary problems.
Audience: Graduate

3. Enhance practical competency in diverse areas of veterinary medicine through hands-on activities, simulations, or field experiences.
Audience: Graduate

4. Recognize connections and interdependencies between diverse topics within the veterinary profession.
Audience: Graduate

MED SC-V 710 – SMALL ANIMAL EMERGENCY MEDICINE ROTATION
2 credits.

Work jointly with faculty, residents and interns to assess emergent patients, formulate both treatment and diagnostic plans. Under direct supervision, demonstrate basic ER skills and procedures upon patients, as is appropriate.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, for 2 number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Recognize indicators of emergency and prioritize a plan of action
Audience: Graduate

2. Perform a complete and accurate assessment of emergent patients
Audience: Graduate

3. Describe and apply appropriate basic procedural skills on emergent patients
Audience: Graduate

4. Recognize situational limitations and seek consults as needed
Audience: Graduate

MED SC-V 711 – SELECTIVE CLINICAL EXPERIENCES IN VETERINARY MEDICINE
1 credit.

Selected experiences in veterinary medicine to explore clinical environments and investigate various career paths within the veterinary profession before formal clinical rotations.
Requisites: Declared in Doctor of Veterinary Medicine
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, for 4 number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Effectively bridge the gap between classroom learning in foundational sciences and its application in real clinical scenarios.
Audience: Graduate

2. Perform basic veterinary clinical skills, including physical examination techniques, patient handling, and restraint.
Audience: Graduate

3. Practice professional conduct and etiquette in a clinical setting, including interactions with clients, staff, and patients.
Audience: Graduate

4. Explore potential career paths in different areas of the veterinary profession.
Audience: Graduate

MED SC-V 714 – SMALL ANIMAL PRIMARY CARE ROTATION
2 credits.

Provide a practical, clinical experience by determining the diagnosis and treatment of general practice preventative medicine and diseases of dogs and cats. Provide an opportunity to evaluate and treat primary or first opinion cases (medicine, surgery) seen in private practice, to develop proficiency in client communications, and to create a skills base for management of preventive health, new pet and primary medical and surgical cases.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, for 2 number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Obtain an oral history and perform a complete physical examination to identify clinical problems and abnormalities
Audience: Graduate

2. Apply foundational veterinary knowledge and critical thinking to create problem lists and prioritized differentials
Audience: Graduate

3. Demonstrate appropriate use of instrumentation and techniques for proper tissue handling and basic surgery on live patients
Audience: Graduate

4. Create a preventative care plan for small animals
Audience: Graduate

5. Create patient discharge instructions and written medical records using appropriate language for effective communication and understanding
Audience: Graduate

MED SC-V 716 – SMALL ANIMAL WISCARES ROTATION
2 credits.

Lead cases by determining diagnosis and treatment of general practice preventative medicine and diseases of small animal species. Build clinical diagnostic and surgical skills, communication skills, interdisciplinary teamwork, self-reflection, and cultural humility skills.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, for 1 number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Incorporates animal welfare, client expectations, and economic considerations into the diagnostic or treatment plan
Audience: Graduate

2. Recognizes zoonotic diseases and responds accordingly
Audience: Graduate

3. Promotes the health and safety of people and the environment
Audience: Graduate

4. Listens attentively and communicates professionally
Audience: Graduate

5. Adapts communication style to colleagues and clients
Audience: Graduate

6. Demonstrates inclusivity and cultural competence
Audience: Graduate

MED SC-V 731 – FOUNDATIONS OF VETERINARY MEDICINE I
7 credits.

Develop a comprehensive understanding of the foundational concepts underpinning the normal, healthy animal. Through a structured approach comprising various modules, including foundations of homeostasis, movement and support, and circulation and respiration, delve into essential anatomical and functional elements vital for animal health. Emphasizing the intricate interplay of cells, tissues, organs, and organ systems, gain crucial insights into the mechanisms orchestrating communication and control to uphold homeostasis. Integrating disciplines such as anatomy, physiology, histology, embryology, and radiology, combine foundational knowledge with an emphasis on practical clinical applications and the development of critical thinking essential for navigating the complexities of veterinary practice.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2025
Learning Outcomes: 1. Describe the location, organization, development, and main purposes of the structures involved in a body system.
Audience: Graduate

2. Explain the relationship between the structure and function of organs within a system.
Audience: Graduate

3. Analyze the cause-and-effect relationships between different elements within a body system.
Audience: Graduate

4. Evaluate the importance of biochemical, electrical, and mechanical events within a body system.
Audience: Graduate

5. Predict the sequence of events necessary to restore homeostasis after disruption or dysfunction.
Audience: Graduate

6. Compare and contrast the functions of different body systems and describe how their combined actions maintain or restore homeostasis and health.
Audience: Graduate

7. Identify scientific literature from various sources and appraise information based on credibility and applicability.
Audience: Graduate

MED SC-V 732 – FOUNDATIONS OF VETERINARY MEDICINE II
7 credits.

Develop a comprehensive understanding of the foundational concepts underpinning the normal, healthy animal. Through a structured approach comprising various modules, including eating and eliminating, and cognition, senses and response, delve into essential anatomical and functional elements vital for animal health. Emphasizing the intricate interplay of cells, tissues, organs, and organ systems, gain crucial insights into the mechanisms orchestrating communication and control to uphold homeostasis. Integrating disciplines such as anatomy, physiology, histology, embryology, and radiology, combine foundational knowledge with an emphasis on practical clinical applications and the development of critical thinking essential for navigating the complexities of veterinary practice.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2025
Learning Outcomes: 1. Describe the location, organization, development, and main purposes of the structures involved in a body system.
Audience: Graduate

2. Explain the relationship between the structure and function of organs within a system.
Audience: Graduate

3. Analyze the cause-and-effect relationships between different events within a body system.
Audience: Graduate

4. Evaluate the importance of different biochemical, electrical, and mechanical events within a body system.
Audience: Graduate

5. Predict the sequence of events necessary to restore homeostasis after disruption or malfunction.
Audience: Graduate

6. Compare and contrast the functions of different body systems and describe how their combined actions maintain or restore homeostasis and health.
Audience: Graduate

7. Identify scientific literature from various sources and appraise information based on credibility and applicability.
Audience: Graduate

MED SC-V 733 – FOUNDATIONS OF VETERINARY MEDICINE III
7 credits.

Develop a comprehensive understanding of the foundational concepts underpinning the normal, healthy animal. Through a structured approach comprising various modules, including reproduction, barriers and defense, and healthy populations, delve into essential anatomical and functional elements vital for animal health. Emphasizing the intricate interplay of cells, tissues, organs, and organ systems, gain crucial insights into the mechanisms orchestrating communication and control to uphold homeostasis. Integrating disciplines such as anatomy, physiology, histology, embryology, radiology, and epidemiology combine foundational knowledge with an emphasis on practical clinical applications and the development of critical thinking essential for navigating the complexities of veterinary practice.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Describe the location, organization, development, and main purposes of the structures involved in a body system.
Audience: Graduate

2. Explain the relationship between the structure and function of organs within a system.
Audience: Graduate

3. Analyze the cause-and-effect relationships between different events within a body system.
Audience: Graduate

4. Evaluate the importance of different biochemical, electrical, and mechanical events within a body system.
Audience: Graduate

5. Predict the sequence of events necessary to restore homeostasis after disruption or malfunction.
Audience: Graduate

6. Compare and contrast the functions of different body systems and describe how their combined actions maintain or restore homeostasis and health.
Audience: Graduate

7. Identify scientific literature from various sources and appraise information based on credibility & applicability
Audience: Graduate

8. Explain the basic requirements for nutrition, husbandry and behavioral wellbeing to maintain health, welfare and production in select veterinary species.
Audience: Graduate

9. Apply the principles of causal inference to health, welfare, and production-related outcomes.
Audience: Graduate

10. Explain characteristics of laboratory tests and appropriately interpret test results.
Audience: Graduate

MED SC-V 736 – VETERINARY CLINICAL SKILLS I
2 credits.

Begin development of foundational clinical skills needed by veterinarians to excel in the current, demanding clinical veterinary environment. Emphasizing hands-on training to build a strong foundation in the correct handling, restraint, and physical examination of multiple species. Through a structured approach in various laboratories, move toward performance of these skills at a pre-novice I level.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2025
Learning Outcomes: 1. Perform components of a physical examination on multiple veterinary species, using appropriate handling and restraint.
Audience: Graduate

2. Perform diverse clinical skills and procedures from multiple areas of veterinary medicine.
Audience: Graduate

MED SC-V 737 – VETERINARY CLINICAL SKILLS II
1 credit.

Advance development of foundational clinical skills needed by veterinarians to excel in the current demanding clinical veterinary environment. Engage in deliberate practice in handling and restraint techniques, as well as in-depth physical examinations of various species, demonstrating sustained performance at a pre-novice I level.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Perform components of a physical examination on multiple veterinary species, using appropriate handling and restraint.
Audience: Graduate

2. Perform diverse clinical skills and procedures from multiple areas of veterinary medicine.
Audience: Graduate

MED SC-V 738 – VETERINARY PROFESSIONAL SKILLS I
1 credit.

Develop critical, non-medical skills needed to excel in today's demanding clinical veterinary environment. Emphasizing a strong foundation in areas that complement veterinary medical expertise, fostering a more rewarding career, improving patient care, and creating a positive work environment for the veterinary healthcare team. Through a structured approach comprising various modules, including career, communication, ethics, financial, individual and team awareness, leadership, legal, mentorship, practice management, and wellbeing/wellness, delve into essential professional skills for future veterinarians. Emphasizing the following fundamental skills: communication in teams, giving and receiving constructive feedback, and self-reflection to better understand personal goals, needs, and motivations. Core aspects for a veterinary career are introduced: medical records and documentation, legal and ethical considerations, cultural responsiveness, and client communication.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2025
Learning Outcomes: 1. Recognize skills and strategies for time-management, team collaboration, communication, and personal wellness that can contribute success as a student and in a veterinary career.
Audience: Graduate

2. Describe and compare skills and strategies for leadership and collaboration in teams.
Audience: Graduate

3. Identify personal values and goals to create a personal-professional mission statement.
Audience: Graduate

4. Identify personal wellness needs and available wellness resources.
Audience: Graduate

5. Explain what feedback is, why it is important and describe the feedback cycle.
Audience: Graduate

6. Define the difference between legal requirements and ethical responsibility, and why ethics are important to veterinary medicine.
Audience: Graduate

7. Define components of legal medical records and the importance of using proper medical terminology in documentation.
Audience: Graduate

MED SC-V 739 – VETERINARY PROFESSIONAL SKILLS II
1 credit.

Develop critical, non-medical skills needed to excel in today's demanding clinical veterinary environment. Emphasizing a strong foundation in areas that complement veterinary medical expertise, fostering a more rewarding career, improving patient care, and creating a positive work environment for the veterinary healthcare team. Through a structured approach comprising various modules, including career, communication, ethics, financial, individual and team awareness, leadership, legal, mentorship, practice management, and wellbeing/wellness, delve into essential professional skills for future veterinarians. Develop a deeper grounding into key ethical and legal aspects of a veterinary career, including veterinarian-owner-client confidentiality, animal welfare, owner responsibility and euthanasia. Practice verbal and written communication skills in relation to commonly encountered scenarios. Veterinary career paths will be explored and defined; career planning networks developed.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Explain ethical concepts surrounding animal welfare and the ethical basis for veterinarian-owner-patient confidentiality.

Audience: Graduate

2. Reflect on personal, legal, and ethical perspectives and standards on death and euthanasia.
Audience: Graduate

3. Describe legal minimum care standards for owners and ranges of veterinary care perspectives.
Audience: Graduate

4. Describe and demonstrate communication strategies for discussing topics of a healthy pet visit.
Audience: Graduate

5. Demonstrate basic skills and strategies for career planning and compare career options within veterinary medicine.
Audience: Graduate

MED SC-V 741 – VETERINARY DISEASE AND DYSFUNCTION I
6 credits.

Explore animal diseases and dysfunction spanning multiple body systems. Through a structured approach comprising various modules, including foundations of disease, and barriers and defense, explore disease etiology, pathophysiology, clinical manifestations, diagnostic methodologies, therapeutic interventions, and preventive strategies. Interdisciplinary perspectives will be employed to develop an understanding of the mechanisms underlying various animal diseases. Apply didactic knowledge to real-world scenarios. Utilize foundational knowledge with an emphasis on practical clinical applications and the development of clinical reasoning essential for navigating the complexities of veterinary practice.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Identify clinical presentations through analysis of patient history and physical examination findings.
Audience: Graduate

2. Analyze key pathogenic mechanisms within clinical contexts, integrating patient history and clinical features.
Audience: Graduate

3. Formulate and prioritize a problem list through evaluation of clinical presentations and using knowledge of pathogenic mechanisms.
Audience: Graduate

4. Construct and rank an appropriate differential diagnosis list based on a thorough assessment of the problem list.
Audience: Graduate

5. Develop an initial diagnostic plan based on the problem list and differentials.
Audience: Graduate

6. Continually update ranked problem list, differential diagnosis, and diagnostic plan by integrating clinical, biochemical, pathologic, and imaging data.
Audience: Graduate

7. Apply a variety of therapeutic modalities-pharmacologic, biological, physical, surgical, environmental, and nutritional-to manage or prevent pathophysiologic mechanisms underlying disorders.
Audience: Graduate

8. Describe disease progression or resolution patterns.
Audience: Graduate

9. Assess treatment responses against expected outcomes and adjust management strategies accordingly.
Audience: Graduate

10. Apply principles of extra-label drug use, withdrawal times, and responsible drug administration in accordance with relevant regulations and guidelines.
Audience: Graduate

11. Access, analyze, and apply scientific literature and justify clinical decisions based on credibility and applicability of the information.
Audience: Graduate

MED SC-V 746 – VETERINARY CLINICAL SKILLS III
1 credit.

Extend development of foundational clinical skills needed by veterinarians to excel in the current demanding clinical veterinary environment. Engage in dynamic practice and simulations in handling, restraint, and in-depth physical examinations of various species to move towards performance of these skills at a pre-novice II level.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Perform components of a physical examination on multiple veterinary species, using appropriate handling and restraint.
Audience: Graduate

2. Perform diverse clinical skills and procedures from multiple areas of veterinary medicine.
Audience: Graduate

MED SC-V 748 – VETERINARY PROFESSIONAL SKILLS III
1 credit.

Develop critical, non-medical skills needed to excel in today's demanding clinical veterinary environment. Emphasizing a strong foundation in areas that complement veterinary medical expertise, fostering a more rewarding career, improving patient care, and creating a positive work environment for the veterinary healthcare team. Through a structured approach comprising various modules, including career, communication, ethics, financial, individual and team awareness, leadership, legal, mentorship, practice management, and wellbeing/wellness, delve into essential professional skills for future veterinarians. Explore mental and emotional well-being impacts, including ethical dilemmas, and interpersonal interaction with colleagues and clients. Discuss strategies for finding and building a mentor network. Explore worldview and value differences. Refine and practice communication strategies. Focus on giving and receiving feedback and develop a feedback action plan.
Requisites: Declared in Doctor of Veterinary Medicine DVM with first year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2026
Learning Outcomes: 1. Reflect on and respond to factors, including ethical dilemmas in veterinary medicine, that impact wellbeing of veterinarians.
Audience: Graduate

2. Reflect on your worldview and ethical boundaries, how it may differ from others', and how this affects your decision making and interpersonal relationships.
Audience: Graduate

3. Demonstrate strategies for building teams and finding a mentor.
Audience: Graduate

4. Describe and demonstrate strategies for communicating with colleagues and clients.
Audience: Graduate

5. Give, receive, and develop a plan of action based on feedback as part of a team.
Audience: Graduate

MED SC-V 775 – EXTERNSHIP
1-12 credits.

Offers opportunities for faculty coordinated experience in the veterinary medical profession outside School of Veterinary Medicine.
Requisites: Declared in Doctor of Veterinary Medicine with fourth year standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2026
Learning Outcomes: 1. Understand real-world applications of foundational veterinary medical knowledge and skills
Audience: Graduate

2. Apply foundational veterinary knowledge and critical thinking to solve real-world problems
Audience: Graduate

3. Perform select techniques and procedures to develop various skills professional in veterinary medicine
Audience: Graduate