

DEPARTMENT OF CLINICAL SCIENCES



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vetmedbiosci.colostate.edu/cs/ (<https://vetmedbiosci.colostate.edu/cs/>)

Professor Wayne Jensen, Department Head

Faculty in the Department of Clinical Sciences participate in training professional veterinary medical students and graduate students. For the veterinary medical student curriculum, students are instructed in the diagnosis, medical and surgical treatment, and prevention and management of domestic and exotic animal diseases. Through field service clinical experience, students receive on-the-farm training in livestock herd health management and production medicine. Our major clinical training center is the Veterinary Teaching Hospital, which operates state-of-the-art primary and referral services in all areas of small animal medicine and surgery, equine, and agricultural animal clinical care.

Undergraduate

No undergraduate major is offered.

Graduate

Graduate Programs in Clinical Sciences

Graduate programs offered in the department lead to Master of Science or Doctor of Philosophy degrees. Particular research focus areas within the department include epidemiology, musculoskeletal diseases, cancer biology, cardiovascular diseases, regenerative medicine, and infectious diseases of animals.

The department also offers a three-year combined master's degree and residency program in large and small animal surgery, anesthesiology, cardiology, dentistry, internal medicine, neurology, oncology, ophthalmology, dermatology, small and large animal sports medicine and rehabilitation, large and small animal theriogenology, and emergency and critical care medicine. These training programs partially fulfill requirements for board certification in these specialties. Students interested in graduate work should refer to the Graduate and Professional Bulletin (<http://catalog.colostate.edu/general-catalog/graduate-bulletin/>) and the Department of Clinical Sciences (<https://vetmedbiosci.colostate.edu/cs/>).

Master's Program

- Master of Science in Clinical Sciences (<http://catalog.colostate.edu/general-catalog/colleges/veterinary-medicine-biomedical-sciences/clinical-sciences/clinical-sciences-ms/>)

Ph.D.

- Ph.D. in Clinical Sciences*

* Please see department for program of study.

Courses

Clinical Sciences (VS)

VS 301 Human-Animal Interactions Credits: 3 (1-0-2)

Course Description: Explore various topics and current research related to human-animal interactions.

Prerequisite: None.

Registration Information: Completion of AUCC Category 2. Must register for lecture and recitation. Offered as an online course only. Credit not allowed for both VS 280A1 and VS 301.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

VS 310 Communication Skills for Animal Professions Credits: 3 (3-0-0)

Course Description: Professional training and specifically tailored communication skills designed to meet the needs of animal professionals.

Prerequisite: None.

Registration Information: Sections may be offered: Online.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

VS 331 Histology Credits: 4 (3-2-0)

Course Description: Analysis of animal cells, tissues, and organs emphasizing light microscopy.

Prerequisite: LIFE 102.

Registration Information: Must register for lecture and laboratory. Credit not allowed for both VS 331 and BMS 330. Sections may be offered: Online.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

VS 333 Domestic Animal Anatomy Credits: 4 (3-3-0)

Course Description: Comparative functional anatomy of the dog, horse, and cow.

Prerequisite: BZ 110 or LIFE 102.

Registration Information: Must register for lecture and laboratory. Credit not allowed for both VS 333 and BMS 305. Sections may be offered: Online.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

VS 401 Human Animal Interactions Credits: 3 (3-0-0)

Course Description: Roles animals play in society, and the impact of human and animal relationships.

Prerequisite: None.

Registration Information: Completion of AUCC Category 2. Offered as an online course only.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

VS 410 Pets Forever – Supporting the Life-Long Bond Credits: 3 (1-4-0)

Course Description: Opportunity to engage with older adults and individuals with disabilities and their companion animals. Enrichment of students' experience through the opportunity to gain community service experience.

Prerequisite: HDFS 101 or PSY 100 or SOWK 110.

Registration Information: Must register for lecture and laboratory. Sections may be offered: Online.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

VS 478 Biology and Behavior of Cats Credits: 3 (3-0-0)

Also Offered As: BZ 478.

Course Description: Comprehensive inquiry into how aspects of physiology, neurobiology, development and genetics influence the behavior of domestic cats. Evolution and domestication are explored as contextual reference for some behavior problems, and differentiated from true abnormal behavior. Emphasis is on interpreting scientific experiments in feline biology.

Prerequisite: BZ 220.

Restriction: Must not be a: Freshman, Sophomore.

Registration Information: Junior standing. Sections may be offered: Online. Credit not allowed for both BZ 478 and VS 478.

Terms Offered: Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

VS 479 Biology and Behavior of Dogs Credits: 3 (3-0-0)

Also Offered As: BZ 479.

Course Description: Interactions of physiology, neurobiology, and genetics on behavior of domestic dogs, and how evolution and domestication influence behavioral traits.

Prerequisite: BZ 220.

Restriction: Must not be a: Freshman, Sophomore.

Registration Information: Junior standing. Sections may be offered: Online. Credit not allowed for both BZ 479 and VS 479.

Terms Offered: Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

VS 495 Independent Study Credits: Var[1-18] (0-0-0)

Course Description:

Prerequisite: None.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 510 Cancer Biology Credits: 3 (3-0-0)

Also Offered As: ERHS 510.

Course Description: Cancer biology will address each of the hallmarks of cancer, including sustained proliferative signaling, evasion of growth suppression, invasion and metastasis, replicative immortality, angiogenesis, resisting cell death, genome instability and mutation, tumor promoting inflammation, deregulation of cellular energetics and avoidance of immune destruction. Lectures will integrate the biology behind these hallmarks with strategies for the treatment and prevention of cancer.

Prerequisite: BC 351 or BC 403, may be taken concurrently or BZ 310 or CM 501.

Registration Information: Credit not allowed for both ERHS 510 and VS 510.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

VS 533 Epidemiology of Infectious Diseases/Zoonoses Credits: 3 (2-0-1)

Also Offered As: MIP 533.

Course Description: Epidemiologic features of infectious and parasitic diseases that have a major impact on community medicine.

Prerequisite: MIP 300.

Registration Information: Must register for lecture and recitation. Credit not allowed for both MIP 533 and VS 533.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

VS 562 Applied Data Analysis Credits: 3 (3-0-0)

Course Description: Data management, application and interpretation of statistical analysis, and reporting of results for students in health science fields.

Prerequisite: STAT 301 or STAT 307.

Registration Information: Credit not allowed for VS 562, EDRM 606 and PBHL 560.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

VS 570 Issues in Animal Agriculture Credits: 2 (2-0-0)

Also Offered As: AGRI 570.

Course Description: Issues that have a major impact on the direction of changes in animal agriculture.

Prerequisite: None.

Registration Information: Credit not allowed for both VS 570 and AGRI 570.

Term Offered: Fall (even years).

Grade Mode: Traditional.

Special Course Fee: No.

VS 579 Applied Animal Behavior Credits: 4 (3-2-0)

Also Offered As: NSCI 579.

Course Description: How animals learn, perceive their work, and behave, and how all of those intersect to alter behavior in managed care.

Prerequisite: BZ 300 or BZ 478 or BZ 479.

Restriction: Must not be a: Freshman, Sophomore.

Registration Information: Junior standing. Must register for lecture and laboratory. Sections may be offered: Online. Credit not allowed for both NSCI 579 and VS 579.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

VS 600 Clinical Correlations in Large Animal Med Credit: 1 (1-0-0)

Course Description: Comprehensive review of selected medical diseases of both equine and livestock species in a case based format. Develop an advanced understanding of the pathophysiology, diagnosis, treatment and prevention of these diseases and become familiar with the pertinent primary literature of the last three years.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Sections may be offered: Online or Mixed Face-to-Face.

Terms Offered: Fall, Spring, Summer.

Grade Mode: S/U Sat/Unsat Only.

Special Course Fee: No.

VS 602 Scientific Evaluation of Medical Literature Credits: 2 (1-0-1)

Course Description: Method of evaluating scientific literature. Designed as a practical, rather than theoretical, approach to a literature search. Encourages research of scientific publications. The different sources of databases available and the methods of retrieving the literature are addressed.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Must register for lecture and recitation.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

VS 605 Comparative Anesthesiology Credits: 2 (2-0-0)

Course Description: Techniques in anesthesia for large and small animals.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 606 Comparative Anesthesiology Laboratory Credit: 1 (0-3-0)

Course Description: Techniques in anesthesia for large and small animals.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Must have concurrent registration in VS 605.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 612 Plastic and Reconstructive Surgery Credits: 2 (2-0-0)

Course Description: Advances in surgical patient care, surgical instrumentation, and reconstruction.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: DVM degree or equivalent professional medicine degree.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

VS 613 Plastic and Reconstructive Surgery Laboratory Credit: 1 (0-3-0)

Course Description: Advances in surgical patient care, surgical instrumentation, and reconstruction.

Prerequisite: VM 786B.

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

VS 626 Infertility and Genital Disease Credits: 2 (2-0-0)

Course Description: Infectious and noninfectious causes of reproductive failure in food animals.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 628 Physiology and Pathophysiology Credits: 3 (3-0-0)

Course Description: Overview of the normal physiology and pathophysiology of disease states of mammalian organ systems.

Prerequisite: BMS 500 and BMS 501.

Restriction: Must be a: Graduate, Professional.

Registration Information: Offered as Mixed Face-to-Face. DVM degree or equivalent professional medicine degree can substitute for BMS 500; BMS 501.

Term Offered: Fall (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

VS 630 Orthopedic Surgery Credits: 3 (3-0-0)

Course Description: Techniques, devices, and prosthetic materials in rehabilitating musculoskeletal problems.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 631 Orthopedic Surgery Laboratory Credit: 1 (0-3-0)

Course Description: Procedures applied to skeletal preparations and living animals.

Prerequisite: (VM 786A or VM 786B) and (VS 630, may be taken concurrently).

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 642 Ophthalmology Credits: 5 (4-2-0)

Course Description: Instrumentation, ocular therapeutics, and clinical ophthalmology.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Must register for lecture and laboratory.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

VS 644 Principles of Theriogenology Credits: 2 (2-0-0)

Course Description: Provide basic and practical understanding of reproduction in domestic species. Including the anatomy and physiology of males and females, gamete development, fertilization, embryonic development, parturition and early neonatal care; focusing on domestic animals. In addition to basic normal physiology, characteristic disease states and potential treatments will be discussed, as well as methods for improving reproductive capabilities, such as artificial insemination and embryo transfer.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Written consent of instructor.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

VS 645 Surgery of the Eye Credits: 3 (2-3-0)

Course Description: Techniques, indications, and complications.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Must register for lecture and laboratory.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 648 Food Animal Production and Food Safety Credits: 2 (2-0-0)

Also Offered As: VM 648.

Course Description: Basic orientation to food animal production units, herd health concepts, and issues of food safety from preharvest through processing and distribution.

Prerequisite: None.

Restriction: Must be a: Graduate, Graduate cooperative program, Professional.

Registration Information: Enrollment in Food Science/Safety Graduate Interdisciplinary Studies program required. Credit not allowed for both VS 648 and VM 648.

Term Offered: Spring.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 650 Comparative Abdominal Surgery Credits: 3 (3-0-0)

Course Description: New techniques in surgery of abdominal viscera.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 651 Comparative Abdominal Surgery Laboratory Credit: 1 (0-3-0)

Course Description: Reparative and reconstructive abdominal surgical procedures.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: DVM degree or equivalent professional medicine degree.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 655A Veterinary Echocardiography: Fundamentals Credits: 2 (1-3-0)

Course Description: Fundamentals of small animal veterinary echocardiographic skills and interpretation are covered.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Admission to professional curriculum in veterinary medicine. Must register for lecture and laboratory.

Term Offered: Fall (even years).

Grade Mode: Traditional.

Special Course Fee: No.

VS 655B Veterinary Echocardiography: Advanced Topics Credits: 3 (3-0-0)

Course Description: High level analysis of echocardiographic techniques and applications in the clinical setting.

Prerequisite: VS 655A.

Restriction: Must be a: Graduate, Professional.

Registration Information: Admission to professional curriculum in veterinary medicine.

Term Offered: Spring (even years).

Grade Mode: Traditional.

Special Course Fee: No.

VS 660 Neurology and Neurosurgery Credits: 3 (3-0-0)

Course Description: Diagnostic and surgical techniques for the nervous system.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 661 Neurology and Neurosurgery Laboratory Credit: 1 (0-2-0)

Course Description: Laboratory practice of comparative neurology (large and small animal), neurosurgical techniques and procedures.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: This is a partial semester course. DVM degree or equivalent professional medicine degree required.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 665A Advanced Topics in Veterinary Cardiology: Cardiopulmonary Pathophysiology Credits: 3 (3-0-0)

Course Description: The pathobiology, advanced diagnostics, and treatment strategies for animals and humans with spontaneous cardiovascular disease.

Prerequisite: BMS 420.

Restriction: Must be a: Graduate, Professional.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 665B Advanced Topics in Veterinary Cardiology: Heart Failure and Cardiac Biomarkers Credits: 2 (2-0-0)

Course Description: Review of the pathophysiology of heart failure. Discuss the diagnostic and therapeutic approach to heart failure. Clinical trial design will be reviewed prior to summarizing recent clinical trial results in humans and dogs.

Prerequisite: BMS 420.

Restriction: Must be a: Graduate, Professional.

Registration Information: DVM degree or equivalent professional medicine degree required, or by instructor permission.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 665C Advanced Topics in Veterinary Cardiology: Invasive Catheterization & Hemodynamics Credits: 2 (2-0-0)

Course Description: Technical aspects of cardiac catheterization, focusing on pathophysiologic data that can be obtained during invasive catheterization procedures and interventional treatment options available.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 665D Advanced Topics in Veterinary Cardiology: Cardiac Electrophysiology & Arrhythmias Credits: 2 (2-0-0)

Course Description: Advanced review of cardiac electrophysiology including ion channels, action potentials, cardiac conduction, automaticity, and cellular mechanisms of arrhythmogenesis. Interpretation of electrocardiogram and cardiac arrhythmia diagnosis in animals and humans. Basic principles of treatment of cardiac interventions including electrophysiology studies and interventions.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Credit not allowed for both VS 665D and VS 680A1.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 665E Advanced Topics in Veterinary Cardiology: Cardiovascular Imaging Credits: 2 (2-0-0)

Course Description: Highlight the pathobiology, advanced diagnostics, and treatment strategies for animals with spontaneous cardiovascular disease.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: DVM degree or equivalent professional medicine degree required, or by instructor permission.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 665F Advanced Topics in Veterinary Cardiology: Congenital Heart Disease Credits: 2 (2-0-0)

Course Description: Overview and in-depth analysis of congenital malformations of the heart and great vessels in veterinary species, with comparison to the same diseases in humans. Complex lesions are emphasized, with a focus on pathophysiology, diagnostic findings, and therapeutic interventions.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 673 Thoracic and Cardiovascular Surgery Credits: 3 (3-0-0)

Course Description: Surgical approaches to the thorax and the central and peripheral cardiovascular system.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: DVM degree or equivalent professional medicine degree required.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 674 Thoracic and Cardiovascular Surgery Lab Credit: 1 (0-3-0)

Course Description: Surgical procedures applied to the chest, heart, and vessels.

Prerequisite: (VM 786A or VM 786B) and (VS 673, may be taken concurrently).

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 699 Thesis Credits: Var[1-18] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 701 Postgraduate Medicine I Credits: Var[1-3] (0-0-0)

Course Description: Comprehensive review, update of immunology, emergency medicine, dermatology, and endocrinology.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 702 Postgraduate Medicine II Credits: Var[1-3] (0-0-0)

Course Description: Comprehensive review, update of neurology, gastroenterology, and ophthalmology.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 703 Postgraduate Medicine III Credits: Var[1-3] (0-0-0)

Course Description: Comprehensive review, update of oncology, cardiology, reproduction, ophthalmology, and radiology.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Fall (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 704 Postgraduate Medicine IV Credits: Var[1-3] (0-0-0)

Course Description: Comprehensive review, update of hematology, nephrology, urology, respiratory, hepatic, and pancreatic.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Spring (every third year).

Grade Mode: Traditional.

Special Course Fee: No.

VS 716 Advanced Studies in Reproduction Credits: 2 (2-0-0)

Course Description: Biochemical and physiological basis for problems in reproduction.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

VS 718 Cancer Biology Clinical Practicum Credits: 2 (0-0-4)

Course Description: Exposes graduate students engaged in laboratory cancer research to cancer from a clinical perspective, through VTH clinical rotations.

Prerequisite: ERHS 510 or VS 510.

Restriction: Must be a: Graduate, Professional.

Term Offered: Summer.

Grade Mode: Traditional.

Special Course Fee: No.

VS 732 Veterinary Sports Medicine and Rehabilitation Credit: 1 (1-0-0)
Also Offered As: VM 732.

Course Description: An introduction to the principles and practice of sports medicine and rehabilitation in veterinary medicine.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: VM 732: Admission to professional curriculum in veterinary medicine. All courses must be taken in prescribed sequence in the PVM program. VS 732: DVM or equivalent professional degree or consent of instructor.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

VS 733 Advanced Veterinary Epidemiology Credits: 4 (4-0-0)

Course Description: Advanced epidemiological and statistical techniques for the design and analysis of research projects.

Prerequisite: (ERHS 532) and (ERHS 542 or ERHS 544 or STAR 511 or STAR 512 or VS 662).

Restriction: Must be a: Graduate, Graduate cooperative program, Professional.

Term Offered: Spring (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

VS 750 Clinical and Applied Pharmacology Credits: 2 (2-0-0)

Course Description: Factors involved in drug dosing and variability of drug response. Applications in veterinary and human medicine.

Prerequisite: BMS 450.

Restriction: Must be a: Graduate, Professional.

Registration Information: DVM degree or equivalent professional medicine degree can substitute for BMS 450.

Term Offered: Spring (even years).

Grade Mode: Traditional.

Special Course Fee: No.

VS 760 Methods in Orthopaedic Research Credits: 3 (2-0-1)

Course Description: Methods utilized in orthopaedic research will be presented by reviewing basic principles followed by examples of use in research projects.

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Must register for lecture and recitation.

Term Offered: Spring (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

VS 784 Supervised College Teaching Credits: Var[1-18] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 792 Seminar Credits: Var[1-18] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 795A Independent Study: Small Animal Medicine Credits: Var[1-5] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Maximum of 5 credits allowed in course.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 795B Independent Study: Large Animal Medicine Credits: Var[1-5] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Maximum of 5 credits allowed in course.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 795C Independent Study: Small Animal Surgery Credits: Var[1-5] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Maximum of 5 credits allowed in course.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 795D Independent Study: Equine Surgery Credits: Var[1-5] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Maximum of 5 credits allowed in course.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 795G Independent Study: Equine Orthopedics Credits: Var[1-5] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Maximum of 5 credits allowed in course.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 795H Independent Study: Large Animal Reproduction Credits: Var[1-5] (0-0-0)

Course Description:

Prerequisite: None.

Restriction: Must be a: Graduate, Professional.

Registration Information: Maximum of 5 credits allowed in course.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Instructor Option.

Special Course Fee: No.

VS 795I Independent Study: Anesthesiology Credits: Var[1-5] (0-0-0)**Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795J Independent Study: Cardiology Credits: Var[1-5] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795K Independent Study: Neurology Credits: Var[1-5] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795L Independent Study: Dermatology Credits: Var[1-5] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795N Independent Study: Ophthalmology Credits: Var[1-5] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795O Independent Study: Herd Health Management Credits: Var[1-5] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795P Independent Study: Equine Lameness Credits: Var[1-5] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795S Independent Study: Epidemiology Credits: Var[1-5] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Graduate cooperative program, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795T Independent Study: Human-Animal Bond Credits: Var[1-5] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Registration Information:** Maximum of 5 credits allowed in course.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 795U Independent Study: Oncology Credits: Var[1-10] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 796 Group Study-Medicine Credits: Var[1-18] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Graduate cooperative program, Professional.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 798 Research Credits: Var[1-18] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.**VS 799 Dissertation Credits: Var[1-18] (0-0-0)****Course Description:****Prerequisite:** None.**Restriction:** Must be a: Graduate, Professional.**Terms Offered:** Fall, Spring, Summer.**Grade Mode:** Instructor Option.**Special Course Fee:** No.