

VETERINARY MEDICINE (VMED)

VMED 501 Veterinary Medicine Terminology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program

Description: Overview of medical terminology used by veterinarians.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

VMED 503 Veterinary Practice Orientation

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Introduction to different strategies for personal and professional growth and wellbeing in the veterinary practice. Exploration of career opportunities within the veterinary field.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Pass No-Pass

Offered: FALL

VMED 504 Introduction to Veterinary Ultrasound

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Introduction to the use of ultrasound in the veterinary clinic for diagnostic evaluation.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

Offered: FALL

VMED 505 Principles in Population Medicine

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Notes: Students may be required to complete an off campus observation outside of regularly scheduled class times.

Description: Prevention and control of disease in animal populations is a vital function of veterinary medicine. Familiar with population medicine concepts using a practical approach. While the primary focus is on population medicine as it applies to companion animal sheltering, the principles presented have broad application across several fields of practice including but not limited to large animal, zoo, wildlife, and research.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Grade Pass/No Pass Option

Offered: SPRING

VMED 506 Introduction to the Principles of Biosecurity and Disease Transmission

Crosslisted with: VBMS 406, VBMS 806

Prerequisites: VBMS 406: Open to juniors or seniors who have completed LIFE 120 & LIFE 121. VBMS 806: Open to graduate students enrolled in the UNL Graduate College. VMED 506: Open to veterinary professional students.

Description: An introduction into biosecurity and the principles of disease transmission. Covering the concepts of infectious disease transmission with practical applications for control and prevention.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Grade Pass/No Pass Option

Offered: SPRING

VMED 507 Applied Veterinary Clinical Skills

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: A hands-on laboratory class where students will practice and master veterinary clinical skills.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

Offered: FALL

VMED 508 Spanish for Veterinarians

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Notes: At least two years of high school Spanish or equivalent coursework highly recommended.

Description: Achieve a working vocabulary of technical and clinical veterinary terms that will enable professional communication with Spanish-speaking clients, farm managers, or other animal care givers.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

Offered: SPRING

VMED 509 Introduction to Zoological and Exotic Medicine

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Introduction to zoological, wildlife, and exotic animal medicine, focusing on basic husbandry, medical, surgical principles for non-traditional species, and the veterinarian's role in wildlife conservation.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

Offered: SPRING

VMED 510 Small Animal Anesthesia and Surgery Practicum

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program. VMED 583.

Description: Practical application of surgery and anesthetic concepts in veterinary medicine.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Pass No-Pass

Offered: SPRING

VMED 511 Foundations of Veterinary Medicine

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Basic behavior, handling, restraint, and physical examination of cats and dogs. Basic clinical skills and an introduction to clinical cases. Medical record keeping and interpersonal communication in veterinary practice. Diversity and inclusion in veterinary medicine.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

Offered: FALL

Prerequisite for: VMED 512

VMED 512 Foundations of Veterinary Medicine II

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program. VMED 511.

Description: Basic behavior, handling, restraint, and physical examination of ruminants, horses, and lab animals. Specific canine clinical examination techniques. Basic large animal clinical skills and an introduction to production animal medicine. Acquisition and use of clinical scientific information. Interpersonal communication in veterinary practice. Diversity and inclusion in veterinary medicine.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Offered: SPRING

Prerequisite for: VMED 513

VMED 513 Foundations of Veterinary Medicine III

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program. VMED 512.

Description: Preventive care principles and applications. Discussion of clinical cases. Acquisition and use of clinical scientific information. Interpersonal communication in veterinary practice. Applied clinical skills practice.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Offered: FALL

Prerequisite for: VMED 514

VMED 514 Foundations of Veterinary Medicine IV

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program. VMED 513.

Description: Ethical issues in veterinary practice. Regulatory veterinary medicine. Discussion of clinical cases. Applied clinical skills practice.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

Offered: SPRING

VMED 531 Introduction to Animal Welfare

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program

Description: The objective of this course is to develop knowledge of the fundamental principles of animal welfare, in terms of science, ethics and cultural components.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

VMED 550 Nutritional Biochemistry

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Introduce basic biochemical aspects of metabolism and function of energy, protein, fat, minerals and vitamins in the diet. Determine nutrient requirements of food animals, pets and horses under various physiological states. Understand fate of various nutrients in simple stomached animals, ruminants and cecal fermenters. Discuss clinical nutrition problems specific to each species.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

VMED 561 Veterinary Diagnostic Imaging and Radiobiology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program. VMED 583.

Description: The basics of diagnostic imaging in veterinary medicine, including descriptions of different modalities and advantages/disadvantages of each modality; Safety measures associated with different modalities explained; Generation and interpretation of regional radiographic studies of veterinary species explored and described.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Offered: SPRING

VMED 583 Principles of Surgery

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: General principles of surgery for and common surgical problems in animals.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

Prerequisite for: VMED 510; VMED 561; VMED 589; VMED 590

VMED 584 Veterinary Clinical Pathology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Integration of hematology, clinical chemistry and cytology in mechanisms of disease.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

VMED 589 Veterinary Anesthesiology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program. VMED 583.

Description: Anesthetic equipment, anesthetic agents and procedures, pain management and fluid therapy for domestic veterinary species.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

Offered: SPRING

VMED 590 Veterinary Surgery Lab

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program. VMED 583.

Description: General principles of surgery in domestic animals, anesthetic equipment, agents and anesthetic procedures for domestic animals.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

Offered: SPRING

VMED 596 Special Topics in Veterinary Medicine

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Aspects of veterinary medicine not covered elsewhere in the curriculum presented as the need arises. Topic varies.

Credit Hours: 0-3

Min credits per semester:

Max credits per semester: 3

Max credits per degree: 6

Grading Option: Grade Pass/No Pass Option

VMED 630 Veterinary Anatomy I

Crosslisted with: VBMS 830

Prerequisites: First year standing in the Professional Program in Veterinary Medicine

Description: Comparative and topographic anatomy of the dog, cat, and pig.

Credit Hours: 6

Max credits per semester: 6

Max credits per degree: 6

Grading Option: Grade Pass/No Pass Option

Prerequisite for: VMED 631, VBMS 831

VMED 631 Veterinary Anatomy II

Crosslisted with: VBMS 831

Prerequisites: VMED 630

Description: Gross anatomy of domestic ruminants, horses, and birds. An advanced course in detailed gross anatomy incorporating intensive dissection laboratory sessions and classroom lectures.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

Offered: SPRING

VMED 637 Veterinary Neuroanatomy

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Concepts of nervous system functioning, problem identification, and neurologic diseases.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Grade Pass/No Pass Option

VMED 642 Veterinary General, Cellular and Molecular Pathology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: General mechanisms of disease and lesion development in animals at the molecular, cellular, and organ levels.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

VMED 645 Animal Physiology I

Crosslisted with: ASCI 845, VBMS 845

Prerequisites: First year standing in and admission to VMED.

Notes: Primarily for students in animal or biological sciences or veterinary medicine.

Description: Mammalian physiology and cellular mechanisms. Physiology of the cell, embryology, and neuro-sensory, neuromuscular, endocrine, and reproductive systems.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Grade Pass/No Pass Option

Offered: FALL

VMED 646 Animal Physiology II

Crosslisted with: ASCI 846, VBMS 846

Prerequisites: First year standing in and admission to VMED.

Notes: ASCI/VBMS 846/BIOS 814/VMED 646 is designed for students in animal or biological sciences or veterinary medicine.

Description: Mammalian physiology and cellular mechanisms. Physiology of the digestive, cardiovascular, respiratory, and renal systems.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

Offered: SPRING

VMED 650 Veterinary Anatomical Radiology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: The study of normal radiographic anatomy of the dog and cat. Emphasis on patient positioning and proper selection of image modalities based on the anatomic area in question.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Grading Option: Graded

VMED 654 Veterinary Pharmacology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: General principles; drug disposition; drugs acting on the nervous, cardiovascular, renal, gastrointestinal and endocrine systems.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

VMED 660 Veterinary Histology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Fundamental eukaryotic cell biology and early development, microscopic structure of basic cell types, tissues and organs of the body, following a system/apparatus approach.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

VMED 672 Veterinary Systemic Pathology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Study of pathological changes affecting systems at the tissue, organ or organismal level in domestic animals with additional emphasis on selected diseases and syndromes.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Graded

VMED 676 Veterinary Parasitology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Biology of parasites of major veterinary importance. The understanding required for control of parasitism.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Grading Option: Grade Pass/No Pass Option

VMED 680 Veterinary Immunology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Principles and mechanisms underlying the immune system.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Grading Option: Graded

VMED 686 Veterinary Microbiology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Bacteria and fungi of veterinary importance. Mechanisms of disease production and laboratory diagnostic methods.

Credit Hours: 5

Max credits per semester: 5

Max credits per degree: 5

Grading Option: Graded

VMED 687 Veterinary Virology

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: The unique biological features of viruses in terms of their life cycle and tropism in their hosts.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded

VMED 688 Veterinary Public Health

Prerequisites: Must be admitted to the UNL-ISU Veterinary Medicine Program.

Description: Fundamentals of epidemiology, zoonotic diseases, occupational health, food safety, and other public health topics.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Grading Option: Graded