

VETERINARY AND BIOMEDICAL SCIENCES (VBMS)

VBMS 303 Principles and Prevention of Livestock Diseases

Prerequisites: Juniors and seniors; ASCI 240 or ASCI 340 or BIOS 213 and BIOS 213L.

Notes: BIOS 300 or BIOS 312 recommended.

Description: Management techniques in the control of metabolic, infectious, and parasitic diseases of domestic animals and understanding of basic concepts of the important diseases of livestock.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Format: LEC

VBMS 307 Introduction to Veterinary Anatomy

Prerequisites: LIFE 120 & LIFE 120L and LIFE 121 & LIFE 121L or equivalent.

Description: Gross anatomy of the mammalian body, using domestic dog as the model. Macroscopic anatomy of organs and organ systems emphasizing structural and functional relationships, and their contribution to homeostasis of domestic animals. Incorporates detailed study of prosected cadavers and skeletal preparations.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Format: LEC

Offered: SPRING

VBMS 403 Integrated Principles and Prevention of Livestock Diseases

Prerequisites: ASCI 340 or BIOS 213 and BIOS 213L, BIOS 312, CHEM 251.

Notes: Capstone course.

Description: Emphasizes integrated management techniques of livestock, and understanding the basic integrated concepts of the important diseases of domestic animals. Biotechnology in animal health and current issues in management practices to control diseases.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Format: LEC

ACE: ACE 10 Integrated Product

VBMS 408 Functional Histology

Crosslisted with: BIOS 408, BIOS 808, VBMS 808

Prerequisites: BIOS 101 and 101L or LIFE 120 and 120L or BIOS 112; BIOS 213 or ASCI 240 or ASCI 340.

Description: Microscopic anatomy of the tissues and organs of major vertebrate species, including humans. Normal cellular arrangements of tissues and organs as related to their macroscopic anatomy and function, with reference to sub-cellular characteristics and biochemical processes. Functional relationships among cells, tissues, organs and organ systems, contributory to organismal well being. General introduction to pathological processes and principles underlying some diseases.

Credit Hours: 4

Max credits per semester: 4

Max credits per degree: 4

Format: LEC

VBMS 410 General Pharmacology and Toxicology

Prerequisites: BIOS 213, ASCI 240, or ASCI 340; BIOC 321 or BIOC/BIOS/CHEM 431/831; or equivalent.

Notes: Recommended: CHEM 252 and 254; BIOC/BIOS/CHEM 432/832 and 433/833.

Description: Basic principles and sciences of drug action (as therapeutic agents) and of adverse (toxic) effects of harmful chemical substances. Discussion of these concepts as they relate to animal production and care, regulatory concerns, legal and ethical decisions, human and animal health hazards, food safety, and environmental contamination.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Format: LEC

Offered: FALL

VBMS 424 Basic Molecular Infectious Diseases

Crosslisted with: VBMS 824

Prerequisites: BIOS 312.

Notes: Offered spring semester of odd-numbered calendar years.

Description: Introduction to the molecular, genetic and cellular aspects of microbial pathogenesis in humans and animals. Critical reviews of original scientific literature and development of manuscript and proposal writing.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Format: LEC

Offered: SPRING

VBMS 441 Pathogenic Microbiology

Crosslisted with: BIOS 441, BIOS 841, VBMS 441H, VBMS 841

Prerequisites: BIOS 312

Description: Fundamental principles involved in host-microorganism interrelationships. Identification of pathogens, isolation, propagation, mode of transmission, pathogenicity, symptoms, treatment, prevention of disease, epidemiology, and methods of control.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Format: LEC

Prerequisite for: VBMS 805; VBMS 949

VBMS 441H Pathogenic Microbiology

Crosslisted with: BIOS 441, BIOS 841, VBMS 441, VBMS 841

Prerequisites: BIOS 312

Description: Fundamental principles involved in host-microorganism interrelationships. Identification of pathogens, isolation, propagation, mode of transmission, pathogenicity, symptoms, treatment, prevention of disease, epidemiology, and methods of control.

Credit Hours: 3

Max credits per semester: 3

Max credits per degree: 3

Format: LEC

Prerequisite for: VBMS 805; VBMS 949

VBMS 441L Pathogenic Microbiology Laboratory

Crosslisted with: VBMS 841L

Prerequisites: BIOS 312.

Description: Application of diagnostic microbiological techniques to the isolation, propagation and identification of common pathogens of human beings and animals. Case studies used, in the laboratory setting, to explore and test fundamentals of transmission, epidemiology and pathogenesis of selected infectious agents and to relate these to disease signs, treatments and methods of control.

Credit Hours: 1

Max credits per semester: 1

Max credits per degree: 1

Format: LAB

VBMS 488 Exploration of Production Medicine

Prerequisites: Acceptance to an accredited college of veterinary medicine.

Description: Introduction to production medicine and animal health management that weaves together the interrelationship of pasture ecology, animal nutrition, animal well-being, environmental assessment, worker safety, and pre-harvest food safety. Emphasis on the interrelationships between scientific disciplines, and sustainable agriculture. Assessment of normal production potential and health of food producing animals (beef cattle, swine, and sheep) and indicators of abnormal health. Introduction to techniques used to evaluate animal well-being, to computerized information management, and to the veterinarian's role in sustainable agriculture.

Credit Hours: 2

Max credits per semester: 2

Max credits per degree: 2

Format: LEC

VBMS 496 Independent Study in Veterinary Science

Prerequisites: 12 hrs veterinary science or closely related areas and permission.

Description: Individual or group projects in research, literature review, or extension of course work under supervision and evaluation of a departmental faculty member.

Credit Hours: 1-5

Min credits per semester: 1

Max credits per semester: 5

Max credits per degree: 12

Format: IND

VBMS 499H Honors Thesis

Prerequisites: Admission to the University Honors Program and permission.

Notes: AGRI 299H recommended.

Description: Conduct a scholarly research project and write a University Honors Program or undergraduate thesis.

Credit Hours: 3-6

Min credits per semester: 3

Max credits per semester: 6

Max credits per degree: 6

Format: IND