

COMPARATIVE BIOMEDICAL SCIENCES (CBCS)

CBCS 5000 Master's Research and Thesis

Prerequisites: Graduate standing.

Description: Research problem for meeting requirements of the Masters degree. Previously offered as VAPP 5000 and VBSC 5000. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.

Credit hours: 1-6

Contact hours: Contact: 1-6 Other: 1-6

Levels: Graduate, Professional

Schedule types: Independent Study

Department/School: Dean of Veterinary Med

CBCS 5010 Professional Skills for Biomedical Sciences

Prerequisites: Graduate student standing; consent of instructor.

Description: Acquiring skills that are usually not taught in other courses but are essential to be successful in the graduate program as well as in a career in science. Writing and publishing a scientific paper, writing a successful grant proposal, preparing effective oral and poster presentations, and understanding professional ethics in the conduct of scientific research. Previously offered as VBSC 5010. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.

Credit hours: 1-3

Contact hours: Lecture: 1-3 Contact: 1-3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBCS 5013 Comparative Biomedical Sciences I: Cell & Molecular Biology

Prerequisites: Graduate standing and consent of instructor.

Description: The course is designed to provide a comprehensive understanding of cellular and molecular biology including protein and DNA structure and function, gene regulation, membrane function and traffic, mitochondria, cytoskeleton, cell communication, cell cycle, cell death, and cell junctions, adhesion and extracellular matrix as well as other relevant topics. Previously offered as VBSC 5013.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBCS 5023 Comparative Biomedical Sciences II: Pathophysiology

Description: Integrated applied biology and pathophysiology of hosts and pathogens of veterinary interest including infectious disease processes; hemodynamic, inflammatory, immune and tissue repair responses; genetic, environmental, nutritional, and neoplastic disorders; and aging. Previously offered as VBSC 5023.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBCS 5103 Biochemical and Molecular Toxicology

Prerequisites: Graduate standing and consent of instructor.

Description: In-depth overview of biochemical and molecular mechanisms of interactions between exogenous chemicals and living systems. Transport, distribution, elimination and alteration of exogenous chemicals within the body and mechanisms whereby exogenous chemicals disrupt biochemical processes critical for cell/organ/organismal integrity and function. Same course as ITOX 5103. Previously offered as VBSC 5103.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBCS 5110 Special Problems

Prerequisites: Graduate standing and consent of instructor.

Description: Special research problems in the various fields of veterinary biomedical sciences. Previously offered as VIDP 5110 and VBSC 5110. Offered for variable credit, 1-6 credit hours, maximum of 20 credit hours.

Credit hours: 1-6

Contact hours: Contact: 1-6 Other: 1-6

Levels: Graduate, Professional

Schedule types: Independent Study

Department/School: Dean of Veterinary Med

CBCS 5153 Veterinary Immunology

Description: Basic principles of immunology and their application to veterinary medicine. Same course as VME 7153. Previously offered as VBSC 5253 and CBCS 5253.

Credit hours: 3

Contact hours: Lecture: 2 Lab: 2 Contact: 4

Levels: Graduate, Professional

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Dean of Veterinary Med

CBCS 5161 Epidemiology and Evidence-Based Medicine

Credit hours: 1

Contact hours: Lecture: 1 Contact: 1

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBCS 5213 Toxicology: Molecules to Ecosy

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBCS 5264 General Pathology

Prerequisites: Graduate standing and consent of instructor.

Description: Cellular and tissue pathology, pigments, inflammation, immunopathology, disturbances of growth and circulation, and neoplasia. Functional disturbances that accompany changes in structures as well as the causes and pathogenesis of diseases. Same course as VMED 7264. Previously offered as VBSC 5264.

Credit hours: 4

Contact hours: Lecture: 3 Lab: 2 Contact: 5

Levels: Graduate, Professional

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Dean of Veterinary Med

CBSC 5325 Veterinary Parasitology

Credit hours: 5

Contact hours: Lecture: 3 Lab: 4 Contact: 7

Levels: Graduate, Professional

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Dean of Veterinary Med

CBSC 5333 Pharmacology I

Prerequisites: Graduate standing and consent of instructor.

Description: Introduction of the principles of pharmacodynamics, drug disposition and pharmacokinetics. Pharmacological effects, mechanisms of actions, metabolism, disposition, clinical indications and toxic effects of drugs acting on the autonomic, central nervous, cardiovascular, respiratory, and renal systems. Same course as VMED 7333. Previously offered as VBSC 5333.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 5363 Clinical Pathology

Prerequisites: Graduate standing and consent of instructor.

Description: Basic concepts pertinent to data interpretation and laboratory methods used in evaluation of disease. Same course as VMED 7363. Previously offered as VBSC 5363.

Credit hours: 3

Contact hours: Lecture: 2 Lab: 2 Contact: 4

Levels: Graduate, Professional

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Dean of Veterinary Med

CBSC 5404 Techniques in Parasitology

Prerequisites: Graduate standing and general parasitology; helminthology or concurrent enrollment.

Description: Experimental application of basic research and teaching techniques in helminthology and protozoology. Individual and analysis of experimental situations and techniques applicable to all areas of zoology. Previously offered as VBSC 5404.

Credit hours: 4

Contact hours: Lecture: 3 Lab: 2 Contact: 5

Levels: Graduate, Professional

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Dean of Veterinary Med

CBSC 5413 Food Safety and Public Health

Prerequisites: Graduate standing and consent of instructor.

Description: Approaches and skills for identifying, investigating and mitigating occurrences of disease outbreaks; introduction to zoonotic diseases; role veterinarians play in protecting public health; potential human health hazards in foods of animal origin. Course previously offered as VMED 5313 and VBSC 5413. Same course as VMED 7413 and MPH 5413.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 5432 Pharmacology II

Prerequisites: Graduate standing and consent of instructor.

Description: Continuation of VBSC 5333 that includes the mechanisms of action, disposition, adverse effects, and indications for groups of pharmacological agents used in veterinary medicine. Same course as VMED 7432. Previously offered as VBSC 5432.

Credit hours: 2

Contact hours: Lecture: 2 Contact: 2

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 5444 Veterinary Bacteriology & Mycology

Credit hours: 4

Contact hours: Lecture: 3 Lab: 2 Contact: 5

Levels: Graduate, Professional

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Dean of Veterinary Med

CBSC 5454 Veterinary Virology

Prerequisites: Graduate standing and consent of instructor.

Description: Course covers important animal diseases caused by viruses. These infectious diseases will be taught in an animal systems approach. The first part will provide an overview of veterinary virology. The second part will discuss the different viral diseases of animals. Material for each of the viral infections includes the mechanisms of the disease processes and the relationships of zoonotic diseases to community and environmental health as well as important zoonoses. Same course as VMED 7454. Previously offered as VBSC 5454.

Credit hours: 4

Contact hours: Lecture: 4 Contact: 4

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 5482 Hemolymphatic and Oncology

Prerequisites: Graduate standing and consent of instructor.

Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the blood and lymphatic system. (6 week module). Same course as VMED 7482. Previously offered as VBSC 5482.

Credit hours: 2

Contact hours: Lecture: 1 Lab: 2 Contact: 3

Levels: Graduate, Professional

Schedule types: Lab, Lecture, Combined lecture and lab

Department/School: Dean of Veterinary Med

CBSC 5512 Laboratory Animal Medicine

Prerequisites: Graduate standing and consent of instructor.

Description: Introductory course focusing on the biology and major diseases of commonly used laboratory animals. Same course as VMED 7512. Previously offered as VBSC 5512.

Credit hours: 2

Contact hours: Lecture: 2 Contact: 2

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 5533 Toxicology

Prerequisites: Graduate standing and consent of instructor.
Description: Diagnosis and management of intoxications involving plant, chemical, and biological toxins. Same course as VMED 7533. Previously offered as VBSC 5533.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5542 Clinical Endocrinology I

Prerequisites: Graduate standing and consent of instructor.
Description: Advanced medical endocrinology addressing diagnostic endocrinology and therapeutic endocrinology. Diagnostic endocrinology shall examine the physiological and medical basis for selecting provocative or non-provocative testing procedures as an adjunct to completing a definitive diagnosis. Therapeutic endocrinology involves the use of diagnostic endocrinology to evaluate the efficacy of medical treatment of endocrinopathies and the medical use of hormonal preparations to control animal physiology and endocrinology and non-endocrine diseases. Same course as VMED 7542. Previously offered as VBSC 5542.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5563 Musculoskeletal System

Prerequisites: Graduate standing and consent of instructor.
Description: Diagnosis and management of intoxications involving plant, chemical and biological toxins. Same course as VMED 7563. Previously offered as VBSC 5563.
Credit hours: 3
Contact hours: Lecture: 2 Lab: 2 Contact: 4
Levels: Graduate, Professional
Schedule types: Lab, Lecture, Combined lecture and lab
Department/School: Dean of Veterinary Med

CBSC 5564 Alimentary System

Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the alimentary system. Same course as VMED 7564. Previously offered as VBSC 5564.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5583 Dermatology and Endocrinology

Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to skin and the endocrine system (nine-week model). Same course as VMED 7583. Previously offered as VBSC 5583.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5612 Clinical Neurology

Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of nervous system diseases. Same course as VMED 7612. Previously offered as VBSC 5612.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5613 Biology of Parasites

Prerequisites: Graduate standing and consent of instructor.
Description: A systematic and ecologic approach to the study of parasitology. Host-parasite relationships, physiology, ecology and behavioral aspects of parasitic organisms. Previously offered as VBSC 5613.
Credit hours: 3
Contact hours: Lecture: 3 Contact: 3
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5614 Cardiopulmonary System

Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment, and prevention of diseases related primarily to the cardiovascular and respiratory systems. Same course as VMED 7614. Previously offered as VBSC 5614.
Credit hours: 4
Contact hours: Lecture: 4 Contact: 4
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5661 Infectious and Parasitic Diseases of Wild Animals

Prerequisites: Graduate standing and consent of instructor.
Description: Systematic approach to infectious and parasitic diseases affecting wild animals. Capture, restraint, and disease recognition in wild species, population management implications of disease diagnosis. Same course as VMED 7614. Previously offered as VBSC 5614.
Credit hours: 1
Contact hours: Lecture: 1 Contact: 1
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5662 Urinary System

Prerequisites: Graduate standing and consent of instructor.
Description: Pathogenesis, diagnosis, pathology, medical and surgical treatment and prevention of diseases related primarily to the urinary system. Same course as VMED 7662. Previously offered as VBSC 5662.
Credit hours: 2
Contact hours: Lecture: 2 Contact: 2
Levels: Graduate, Professional
Schedule types: Lecture
Department/School: Dean of Veterinary Med

CBSC 5671 Clinical Endocrinology II

Prerequisites: Graduate standing and consent of instructor.

Description: Advanced medical endocrinology, focusing on endocrine diseases associated with 1) dysfunction of the endocrine pancreas, 2) selected endocrinopathies of the reproductive system, and 3) therapeutic use of hormones to control reproductive activity of animals. Same course as VMED 7671. Previously offered as VBSC 5671.

Credit hours: 1

Contact hours: Lecture: 1 Contact: 1

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 5801 Nonclinical Drug Development

Prerequisites: Graduate standing and consent of instructor.

Description: This course will cover the basic to highly-regulated concepts in nonclinical drug development including pharmacology, pharmacokinetics, and toxicology, along with topics in chemistry manufacturing and controls. Same course as ITOX 5801. Previously offered as VBSC 5801.

Credit hours: 1

Contact hours: Lecture: 1 Contact: 1

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 5802 Experimental Principles and Approaches

Prerequisites: Graduate standing and consent of instructor.

Description: A review of experimental principles and approaches essential for design, conduct and analysis of research. Same course as ITOX 5802. Previously offered as VBSC 5802.

Credit hours: 2

Contact hours: Lecture: 2 Contact: 2

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 5902 Toxicology of Chemical Warfare and Chemical Terrorism

Prerequisites: Graduate standing and consent of instructor.

Description: The course will review the history and current issues related to the use of chemicals as agents of warfare and terrorism. Students will participate in weekly roundtable lectures/discussions and review publications related to various toxicological issues surrounding these chemicals. Same course as ITOX 5902. Previously offered as VBSC 5902.

Credit hours: 2

Contact hours: Lecture: 2 Contact: 2

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 6000 PhD Research and Dissertation

Prerequisites: Graduate standing.

Description: Research problem for meeting requirements of the PhD degree. Previously offered as VBSC 6000. Offered for variable credit, 1-15 credit hours, maximum of 45 credit hours.

Credit hours: 1-15

Contact hours: Contact: 1-15 Other: 1-15

Levels: Graduate, Professional

Schedule types: Independent Study

Department/School: Dean of Veterinary Med

CBSC 6010 Respiratory and Infectious Disease Seminar

Prerequisites: Graduate standing and consent of IOR.

Description: The Oklahoma Center for Respiratory and Infectious Disease hosts seminars each semester. This course requires mandatory attendance for seminars with opportunities to meet with and have discussions with the visiting scientist. Previously offered as VBSC 6010. Offered for fixed credit, 1 credit hour, maximum of 6 credit hours.

Credit hours: 1

Contact hours: Contact: 1 Other: 1

Levels: Graduate, Professional

Schedule types: Discussion

Department/School: Dean of Veterinary Med

CBSC 6110 Seminar

Prerequisites: Graduate standing.

Description: Literature and research problems pertaining to veterinary biomedical sciences. Previously offered as VBSC 6110. Offered for variable credit, 1-6 credit hours, maximum of 6 credit hours.

Credit hours: 1-6

Contact hours: Contact: 1-6 Other: 1-6

Levels: Graduate, Professional

Schedule types: Independent Study

Department/School: Dean of Veterinary Med

CBSC 6200 Topics in Advanced Pharmacology and Toxicology

Prerequisites: Graduate standing and consent of instructor.

Description: Selected topics in advanced pharmacology, including xenobiotic kinetics and dynamics. Previously offered as VBSC 6200. Offered for variable credit, 1-4 credit hours, maximum of 4 credit hours.

Credit hours: 1-4

Contact hours: Contact: 1-4 Other: 1-4

Levels: Graduate, Professional

Schedule types: Independent Study

Department/School: Dean of Veterinary Med

CBSC 6223 Xenobiotic Disposition

Prerequisites: Graduate standing and consent of instructor.

Description: Quantitative analysis of xenobiotic absorption, metabolism, and excretion. Analysis of xenobiotic concentration-time data using pharmacokinetic software. Same course as ITOX 6223. Previously offered as VBSC 6201 and VBSC 6223.

Credit hours: 3

Contact hours: Lecture: 3 Contact: 3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med

CBSC 6233 Laboratory in Electron Microscopy

Prerequisites: Graduate standing and consent of instructor.

Description: Students learn sample preparation, theory, and operation of transmission electron microscope and scanning electron microscope. Previously offered as VBSC 6233.

Credit hours: 3

Contact hours: Lab: 6 Contact: 6

Levels: Graduate, Professional

Schedule types: Lab

Department/School: Dean of Veterinary Med

CBSC 6710 Seminar in Veterinary Clinical Sciences

Prerequisites: Graduate standing in the College of Veterinary Medicine, or internship or residency training program in the Department of Veterinary Clinical Services.

Description: Literature and research of problems pertaining to veterinary clinical sciences. Previously offered as VBSC 6710. Offered for variable credit, 1-3 credit hours, maximum of 3 credit hours.

Credit hours: 1-3

Contact hours: Contact: 1-3 Other: 1-3

Levels: Graduate, Professional

Schedule types: Independent Study

Department/School: Dean of Veterinary Med

CBSC 6960 Current Topics in Veterinary Clinical Pathology

Credit hours: 1-3

Contact hours: Lecture: 1-3 Contact: 1-3

Levels: Graduate, Professional

Schedule types: Lecture

Department/School: Dean of Veterinary Med