SURGICAL SCIENCES (SURG SCI)

SURG SCI 501 — RADIOGRAPHIC ANATOMY OF THE DOG AND CAT
1 credit.

Normal radiographic anatomy of the dog and cat. This will include soft tissue structures as well as the skeletal system. Clinical case material to emphasize the need for a thorough knowledge of normal radiographic anatomy.

Requisites: Declared in Veterinary Medicine program
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Fall 2017

SURG SCI 542 — VETERINARY OPHTHALMOLOGY
2 credits.

Provides basic instruction in the application of ophthalmic diagnostics and therapeutics to small and large domestic animals. Professional students should gain sufficient skills and knowledge to accurately diagnose, treat, prognose or refer domestic animals with common ophthalmic disorders.

Requisites: Vet Med st or cons inst
Repeatable for Credit: No

SURG SCI 544 — SURGERY FUNDAMENTALS
2 credits.

Introductory material on the scientific foundations of surgery. Prepares student for clinical course work in veterinary surgery and medicine.

Requisites: Declared in Veterinary Medicine program
Repeatable for Credit: No

SURG SCI 547 — FUNDAMENTALS OF ANESTHESIOLOGY
2 credits.

This is a comprehensive course in Veterinary Anesthesiology. The first half of the course (~15 lectures) will cover basic principles of sedation, pain physiology, anesthetic drugs, anesthetic monitoring, and the practical considerations in performing anesthesia on healthy veterinary species. The second half of the course (~15 lectures) will focus on anesthetic management of common veterinary species with concurrent medical disease. Lectures will also be included that cover advanced pain management principles and techniques, anesthesia for exotic animal species, and breed considerations in anesthesia. Lectures will be case-based and interactive where appropriate.

Requisites: Successful completion of semesters 1 - 3 of the DVM curriculum
Repeatable for Credit: No

SURG SCI/F&W ECOL 548 — DISEASES OF WILDLIFE
3 credits.

This course is designed to provide students with an overview of the issues involved across a wide range of wildlife diseases, presented within the context of ecosystem health or "one health". The primary focus of the lectures will be on the biological, epidemiological, clinical, public health and, in some cases, sociopolitical ramifications of wildlife diseases. The course will cover a wide variety of wildlife diseases caused by bacteria, viruses, parasites, prions, and environmental contaminants. Consequences associated with environmental changes on the manifestation of wildlife diseases will also be discussed. This range of diseases will be presented in order to familiarize students with the many facets involved in disease management, from animal and human health issues, to ecological and environmental considerations, to the role of society in contributing to, and managing, these diseases.

Requisites: Junior standing
Course Designation: Breadth - Biological Sci. Counts toward the Natural Sci req
Level - Intermediate
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Fall 2017

SURG SCI 630 — SMALL ANIMAL SURGERY
4 credits.

The pathophysiology and diagnosis of common general, orthopedic, and neurologic surgical diseases of small animals are presented. The operative management and postoperative care of small animal surgical patients are discussed in detail.

Requisites: Declared in Veterinary Medicine program
Repeatable for Credit: No
Last Taught: Fall 2017

SURG SCI 631 — LARGE ANIMAL SURGERY: ORTHOPEDIC AND SOFT TISSUE
3 credits.

Instruction will be provided in examination techniques, diagnostic aids and surgical procedures relevant to the gastrointestinal, integumentary, musculoskeletal, respiratory and genitourinary systems of the equine and food animal species.

Requisites: Vet Med standing or consent of instructor
Repeatable for Credit: No

SURG SCI 632 — SMALL ANIMAL SURGERY LABORATORY
2 credits.

The basic skills necessary for student participation in the surgical management of small animals in the Veterinary Medical Teaching Hospital are presented.

Requisites: Declared in Veterinary Medicine program
Repeatable for Credit: No

SURG SCI 634 — SMALL ANIMAL ANESTHESIA LABORATORY
1 credit.

In this laboratory the students will apply principles and techniques of veterinary anesthesia to common companion animals.

Requisites: Declared in Veterinary Medicine program
Repeatable for Credit: No
SURG SCI 638 — VETERINARY DIAGNOSTIC IMAGING  
2 credits.  
Veterinary radiology principles, physical background and diagnostic techniques will be taught and emphasized in laboratory exercises.  
Requisites: Declared in Veterinary Medicine program  
Repeatable for Credit: No  
Last Taught: Fall 2017

SURG SCI 642 — LARGE ANIMAL SURGERY: CLINICAL ROTATION  
2 credits.  
Final year veterinary students will be assigned to the Large Animal Surgery Service. They will be taught the admission, examination, preoperative management, surgical procedures and postoperative management of large animals presented to the Veterinary Medical Teaching Hospital.  
Requisites: Declared in Veterinary Medicine program  
Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 644 — CLINICS-SMALL ANIMAL ORTHOPEDIC SURGERY  
2 credits.  
Fourth year veterinary student rotation through orthopedic and neurosurgical clinics and surgery.  
Requisites: Declared in Veterinary Medicine program  
Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 645 — SENIOR ROTATION IN SMALL ANIMAL GENERAL SURGERY  
2 credits.  
A practical course in the diagnosis and treatment of general surgical diseases of small animal species.  
Requisites: Declared in Veterinary Medicine program  
Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 646 — VETERINARY ANESTHESIOLOGY-CLINICAL ROTATION  
2 credits.  
Students will learn clinical anesthesiology techniques including preanesthetic evaluation, induction procedures, intraoperative care, and recovery management of domestic livestock and pets. Critical patient care will be taught.  
Requisites: Declared in Veterinary Medicine program  
Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 647 — RADIOLOGY CLINICS  
2 credits.  
Clinical clerkship in the Veterinary Medical Teaching Hospital half days over a two week period. Provides exercises in technical and interpretive diagnostic radiology.  
Requisites: Declared in Veterinary Medicine program  
Repeatable for Credit: No

SURG SCI 676 — SPECIAL SPECIES HEALTH  
2 credits.  
Basic principles of avian, reptile and laboratory animal medicine and surgery.  
Requisites: 3rd yr Vet Med st  
Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 677 — VETERINARY DENTISTRY ELECTIVE  
1 credit.  
Introduction to veterinary dentistry principles and practice.  
Requisites: 3rd yr Vet Med st  
Repeatable for Credit: No

SURG SCI 699 — DIRECTED STUDY  
1-5 credits.  
Projects in the laboratory and/or through library work in specific subject area 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

SURG SCI 741 — CLINICAL OPHTHALMOLOGY ROTATION  
2 credits.  
Course provides experience in ocular examination, problem solving skills, and formulation of diagnostic and therapeutic plans for animals presenting with eye disease. Ocular examination as part of the complete physical examination and ocular manifestations of systemic diseases are emphasized.  
Requisites: Declared in Veterinary Medicine program  
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement  
Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 743 — ADVANCED ANESTHESIOLOGY/CRITICAL CARE MEDICINE  
2 credits.  
This course will provide advanced training in the areas of small and large animal anesthesia and/or critical care medicine. The student may elect a general rotation or one particular area of study.  
Requisites: Declared in Veterinary Medicine program  
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement  
Repeatable for Credit: No

SURG SCI 744 — RESTRAINT AND ANESTHESIA OF EXOTIC ANIMALS  
2 credits.  
Advanced anesthesiology techniques for animals in zoological collections, wildlife parks, and non-domestic settings will be taught in this course. Emphasis on pharmacology and physiology will be stressed.  
Requisites: Declared in Veterinary Medicine program  
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement  
Repeatable for Credit: No
SURG SCI 746 — FOOD ANIMAL SURGERY
2 credits.

The course will provide didactic and surgical experience in the major, common surgical diseases of cattle and pigs.

Requisites: Declared in Veterinary Medicine program

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

SURG SCI 748 — DENTISTRY AND ORAL SURGERY ROTATION
1-3 credits.

Dentistry, oral medicine and surgery as well as comprehensive patient care through the use of progressive methods, hospital resources and interdisciplinary specialists.

Requisites: 4th yr Vet Med st

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 750 — SMALL ANIMAL ULTRASOUND ELECTIVE
1 credit.

Course will introduce student to hands-on ultrasound imaging and expand on selected portions of ultrasound physics, literature and problem-based case studies.

Requisites: Surg Sci 647

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 775 — EXTERNSHIP
1-24 credits.

This course is an elective for fourth year veterinary medical students which offers faculty coordinated experience in the veterinary medical profession outside the School.

Requisites: Vet Med st or cons inst

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: Yes, unlimited number of completions

SURG SCI 812 — RESEARCH ETHICS AND CAREER DEVELOPMENT
2 credits.

This course provides instruction in principles and concepts of research ethics through presentations and discussion of case studies. Topics pertinent to development of a successful career in research are also included.

Requisites: Graduate or professional standing

Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement

Repeatable for Credit: No

Last Taught: Fall 2017