561 Clinical Competencies III
Fall, 1(0-2) RB: Completion of Year 2 of the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Development of skills for the safe and humane examination and handling of dogs and cats. Performance of common procedures for obtaining specimens and administering medication.

563 Introduction to Exotic Species and Small Mammal Medicine
Spring, 1(1-0) RB: Completion of year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Basic anatomy, physiology, and common disease processes of small mammals, birds, and reptiles. Species include ferrets, rabbits, guinea pigs, small rodents, pet birds, and reptiles.

564 Applied Small Animal Nutrition
Fall, 1(1-0) RB: Completion of year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Principles of life stage nutrition and making dietary recommendations for healthy and sick small animal patients.

565 Animal Behavior
Spring, 1(1-0) RB: Completion of year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Diagnosis, treatment and prevention of behavioral problems in dogs and cats. Topics include problem prevention, behavioral intervention, aggression, anxiety related problems, inappropriate elimination, normal unwanted behavior, client counseling and interaction, and companion animal welfare.

566 Emergency and Critical Care Medicine
Fall, Spring, 1(1-0) RB: Completion of year 1 of the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Case-based discussion of small animal veterinary emergency and critical care medical issues.

567 Small Animal Clinical Oncology
Fall, 1(1-0) RB: Completion of year 2 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Overview of cancer in dogs and cats. Clinical management.

568 Small Animal Advanced Orthopedics Seminars
Fall, 1(1-0) RB: Completion of year 2 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Basic biomechanics and research in orthopedics including novel concepts and techniques in fracture management, arthropathies, corrective osteotomies, implant design, and performance.

590 Selective Topics in Small Animal Clinical Sciences
Fall, Spring, 1(1-0) RB: Completion of year 1 of the graduate professional program in the College of Veterinary Medicine R: Open to graduate-professional students in the College of Veterinary Medicine. Topics vary.

611 Diagnostic Imaging Clerkship
Fall, Spring, Summer. 3 credits. RB: Completion of semester 5 of the professional veterinary program. Diagnostic radiography and ultrasound imaging. Radiation safety. Special procedures.

612 Problems in Diagnostic Imaging Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: (SCS 611) and Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. Advanced diagnostic radiography, ultrasound imaging, and magnetic resonance imaging.

613 Diagnostic Ultrasound Clerkship
Fall, Spring, Summer. 3 credits. RB: (SCS 611) and Completion of semester 5 of the professional veterinary program. R: Open to graduate-professional students in the College of Veterinary Medicine. Principles of ultrasound physics, ultrasound scanning techniques, and interpretation of ultrasound imaging.

625 Small Animal General Medicine Clerkship
Fall, Spring, Summer. 3 credits. RB: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Diagnostic and treatment services for routine and emergency outpatients.

626 Small Animal Soft Tissue Surgery Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Diagnosis and preoperative, surgical, and postoperative care of patients requiring routine elective and major soft-tissue surgical procedures.

630 Spay/Neuter Clerkship
Fall, Spring, Summer. 3 credits. RB: (SCS 626 and SCS 640) and Completion of semester 5 of the graduate professional veterinary program. Ovariohysterectomy or orchietomy. Aspects of pre- and post-operative management and anesthesia.
Small Animal Clinical Sciences—SCS

645 Intensive Care Unit Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in College of Veterinary Medicine. Not open to students with credit in SCS 622.

Intensive care and management of critically ill small animals.

646 Small Animal Orthopedic Surgery Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in the College of Veterinary Medicine.

Diagnosis and preoperative, surgical, and postoperative care of patients requiring routine and major orthopedic surgical procedures.

647 Small Animal Internal Medicine Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in the College of Veterinary Medicine.

Diagnosis and therapy for complicated medical cases of small animals.

648 Anesthesia Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the professional veterinary program. R: Open only to graduate-professional students in the College of Veterinary Medicine.

Pre-anesthesia evaluation, induction, monitoring, and recovery of small animal patients requiring routine and major surgical procedure.

650 Advanced Cardiology Clerkship
Spring. 3 credits. RB: (SCS 640) and Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Approval of department.

Advanced cardiology practice.

651 Advanced Comparative Ophthalmology Clerkship
Spring. 3 credits. RB: (SCS 641) and Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Approval of department.

Problem-oriented approach to complex ocular disease processes at the gross and microscopic levels.

652 Problems in Neurology Clerkship
Fall, Spring. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: (SCS 643) and Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.

Neurologic problems.

653 Clinical Medical Oncology Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.

Management of veterinary cancer patients, including diagnosis, staging evaluation, prognostication and multimodality therapy. Daily clinical rounds and didactic topics.

654 Small Animal Internal Medicine Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.

Surgical management of veterinary cancer patients, including diagnosis, staging evaluation, surgical techniques, and perioperative prognosis.

655 Clinical Surgical Oncology Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.

Problems in Small Animal Clinical Sciences Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.

Advanced, triage, diagnosis, treatment, and discharge of patients entering an emergency service. Daily instructional rounds.

808 Problems in Small Animal Surgery
Fall, Spring, Summer. 1 to 9 credits. A student may earn a maximum of 15 credits in all enrollments for this course. R: Open only to graduate students in the Department of Small Animal Clinical Sciences.

Problems in small animal surgery.

813 Small Animal Seminar
Fall, Spring, Summer. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to graduate students in the Department of Small Animal Clinical Sciences.

Small animal seminar.

820 Experimental Design and Analysis of Clinical Research
Fall of odd years. 2(2-0) R: Approval of department.

Experimental design and analysis in the animal medical sciences with particular emphasis on preclinical and clinical veterinary experiments.

830 Comparative Systems Review in Oncologic Medicine - Supradiaphragmatic
Fall. 2(2-0) RB: Completion of year 2 of the graduate professional program in the College of Veterinary Medicine.

Literature review of supradiaphragmatic oncologic diseases organized by organ system. Comparative aspects of the specific malignancies in human and veterinary oncology.

831 Comparative Systems Review in Oncologic Medicine - Subdiaphragmatic
Spring. 2(2-0) RB: Completion of year 2 of the graduate professional program in the College of Veterinary Medicine.

Literature review of subdiaphragmatic oncologic diseases organized by organ system. Comparative aspects of the specific malignancies in human and veterinary oncology.

832 Comparative Cancer Biology
Spring. 2(2-0) RB: Completion of year 2 of the graduate professional program in the College of Veterinary Medicine.


833 Pharmacology of Anticancer Chemotherapeutics
Fall. 2(2-0) RB: Completion of year 2 of the graduate professional program in the College of Veterinary Medicine.

Literature review and discussion of drugs and other agents used in the treatment of neoplastic diseases in humans and companion animals.

834 Principles of Cancer Protocol Design
Fall. 2(2-0) RB: Completion of year 2 of the graduate professional program in the College of Veterinary Medicine.

Principles of the design and evaluation of clinical trials in oncology.
Comparative Aspects of Tumor Immunology
Spring. 2(2-0) RB: Completion of year 2 of the graduate professional program in the College of Veterinary Medicine. Understanding the immune system's response to neoplastic cells and how the immune response may be recruited to fight cancer. Comparative aspects of immunology.

Master's Thesis Research
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to graduate students in the Department of Small Animal Clinical Sciences. Master's thesis research.