SMALL ANIMAL CLINICAL SCIENCES

Department of Small Animal Clinical Sciences
College of Veterinary Medicine

561 Fundamental Clinical Skills for Small Animals
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.

562 Veterinary Medical Genetics
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.
Mechanisms, recognition, diagnosis, and control of genetics diseases in veterinary medicine.

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
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.
Principles of life stages nutrition and making dietary recommendations for healthy and sick small animal patients.

565 Animal Behavior
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.
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 Seminars
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.
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 Department of Small Animal Clinical Sciences.
Important field of study in Small Animal Clinical Sciences.

611 Diagnostic Imaging Clerkship
Fall. 3 credits. R: Completion of semester 5 of the professional veterinary program. R: Open to graduate-professional students in College of Veterinary Medicine.
Diagnostic radiography and ultrasound imaging. Radiation safety. Special procedures.

612 Problems in Diagnostic Imaging Clerkship
Fall, Spring. 3 credits. R: May earn a maximum of 6 credits in all enrollments for this course. R: (SCS 611) and Completion of semester 5 of the professional veterinary program.

613 Diagnostic Ultrasound Clerkship
Fall, Spring. 3 credits. R: Advanced diagnostic radiography, ultrasound imaging, and magnetic resonance imaging.

625 Small Animal General Medicine Clerkship
Fall, Spring. 3 credits. R: Completion of semester 5 of the professional veterinary program. R: Open 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. R: Completion of semester 5 of the professional veterinary program. R: Open 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. R: (SCS 626 and SCS 648) and Completion of semester 5 of the graduate professional veterinary program.
Ovariohysterectomy or orchietomy. Aspects of pre- and post-operative management and anesthesia.

636 Problems in Soft Tissue Surgery Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: (SCS 626) and completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine.
Soft tissue surgery problems.

637 Operative Surgery: Instruction and Review
Fall. 3 credits. R: VM 557 RB: Completion of semester 5 of the professional veterinary program. R: Open to graduate-professional students in the College of Veterinary Medicine.
Participation in the instruction of VM 557 (Operative Surgery), with preparation for the laboratory and discussion after the laboratory. Performance of additional surgical procedures, case discussions, rounds, and anatomy review. Approved independent study project required.

640 Cardiology Clerkship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Completion of semester 5 of the professional veterinary program. R: Open to graduate-professional students in College of Veterinary Medicine.
Diagnosis and medical, and surgical treatment of small animal thoracic and cardiovascular disorders.

641 Comparative Ophthalmology Clerkship
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the professional veterinary program. R: Open to graduate-professional students in College of Veterinary Medicine.
Ophthalmic evaluation of all species. Diagnosis and medical and surgical treatment of ophthalmic disease.

642 Zoo and Wildlife Clerkship
Fall, Spring, Summer. 3 credits. R: Completion of semester 5 of the professional veterinary program. R: Open to veterinary medicine students in the College of Veterinary Medicine.
Zoo animal and wildlife medicine and surgery.
643 Neurology 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.  
Not open to students with credit in SCS 666.  
Diagnosis and medical and surgical treatment of small animal neurological disorders.

644 Dermatology Clerkship  
Fall, Spring, Summer. 3 credits.  
RB: Completion of semester 5 of the professional veterinary program.  
R: Open to graduate-professional students in the College of Veterinary Medicine.  
Diagnosis and treatment of small animal dermatological disorders.

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.  
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.

653 Problems in Neurology Clerkship  
Fall, Spring, Summer. 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.

654 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.

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

657 Clinical Nutrition for Small Animals  
Spring. 3 credits.  
RB: Completion of Semester 5 of the graduate-professional program in the College of Veterinary Medicine.  
Principles of clinical nutrition and dietetics for dogs and cats: diet evaluation, nutritional assessment, critical care nutrition support, and clinical case evaluations.

694 Small Animal Specialty Practice 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 veterinary medicine students.  
Special problems.

695 Emergency and Critical Care 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.  
Admission, 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)  
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, 2(2-0)  
RB: House Officers of the Veterinary Teaching Hospital or approval of department.  
R: Not open to undergraduate students.  
Experimental design and analysis in the animal medical sciences with particular emphasis on pre-clinical and clinical veterinary experiments.

823 Wildlife Disease Ecology and Management  
Summer of even years. 3(2-3)  
Interdepartmental with Fisheries and Wildlife and Large Animal Clinical Sciences.  
Administered by College of Veterinary Medicine.  
R: Open only to graduate students in the College of Agriculture and Natural Resources.  
Ecological and epidemiological principles of wildlife disease investigation and management.

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

835  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.

899  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.