CURRENT DEPARTMENT OF CLINICAL SCIENCES COURSES (updated 11/09/11)

PROFESSIONAL 600-699 Courses

# / Type	Credits/ Grading	Offered	Standing	Course	Catalog Description	Coordinator
CS 610	2/G	Fall (2009)	General Univ. course	**Feedlot Health Systems**	(2) I. Health of cattle in a commercial feedyard. Includes health risk assessment, cattle handling, processing, vaccination protocols, identification/treatment of sick cattle, necropsy techniques, using computer data to make management decisions for feeder cattle, other management issues. Discussion of disease syndromes and foreign diseases.	Thomson
CS 611	2/G	Spring (2010)	General Univ. course	**Cow-Calf Health Systems**	(2) II. Management of animal well-being and efficient production in a cow-calf system. Includes the areas of health, marketing, growth, nutrition, economics, pharmaceutical management, genetics, and reproduction. (2) II. Management of animal well-being and efficient production in a cow-calf system. Includes the areas of health, growth, nutrition, pharmaceutical management, and reproduction.	G. Hanzlicek / White

PROFESSIONAL 700-799 (Given for VM Credit only-Academic Affairs approve these courses.)

# / Type	Credits/ Grading	Offered	Standing	Course	Catalog Description	Coordinator
CS 709 /D	4/G	Fall	3rd yr	**Medicine I** Borgarelli, Harkin, KuKanich, Schermerhorn	(4) I. Consideration of medical and pathophysiologic aspects of diseases affecting the musculoskeletal, respiratory, cardiovascular special senses, nervous, hemic and lymphatic systems. Four hours lec. a week. Pr.: Third-year standing in the College of Veterinary Medicine. (4) I. Consideration of medical and pathophysiologic aspects of diseases affecting the urinary, endocrine, integumentary, respiratory, hemic, and neuromuscular systems. Four 1-hour lectures per week. Pr.: Third-year standing in the College of Veterinary Medicine.	Harkin
CS 710 /D	3/G	Spring	3rd yr	**Medicine III** L. Beard, Blevins, Davis, Rush	(3) II. A study of the etiology, clinical signs, diagnosis, treatment, and control of common diseases which affect horses. Three hours lecture a week. Pr.: CS 709.	Rush
CS 711 /D	4/G	Spring	3rd yr	**Medicine II** Bagladi, L. Beard, Grauer, Harkin, Higginbotham, McCaw, A. Rankin	(4) II. Consideration of the medical and pathophysiological aspects of diseases affecting the gastrointestinal, endocrine, urinary, integumentary systems. Four hours lec. a week. Pr.: Third-year standing in the College of Veterinary Medicine.	Harkin

					(4) II. Consideration of the medical and pathophysiological aspects of diseases affecting the gastrointestinal, cardiovascular, and ophthalmic systems, oncology, and dentistry. Four 1-hour lectures per week. Pr.: Third-year standing in the College of Veterinary Medicine.	
CS 712 /D	4/G	Fall	3rd yr	**Food Animal Medicine** Anderson, Apley, Coetzee, Gehring, Jones, Laflin, Miesner Others: Karriker	(4) I. A study of the etiology, clinical signs, diagnosis, treatment, and control of diseases which affect cattle, swine, and sheep. Four hours lec. a week. Pr.: Third-year standing in the College of Veterinary Medicine.	Anderson
CS 713 /D	1/G	Spring	3rd yr	**Beef Production Medicine** Coetzee, Laflin, Larson, Rush, Thomson Other Team Teachers: Dritz	(1) II. The role of the veterinarian in livestock production units, including interactions with producers, nutritionists, investors and others in decision analysis. Emphasis is on the professional services that veterinarians provide to beef production systems. Pr.: Third-year standing in the College of Veterinary Medicine.	White
CS 714 /D	2/G	Spring	3rd yr or grad stud	**Clinical Nutrition** M. Jones, Thomson Others: MMI, Meuller, Wileman	(2) II. A focus on practical aspects of nutrition as it relates to performance, health and animal well-being of food-producing animals and, programs designed for health and well-being of small animals including exotic animals. Nutritional aspects of the mechanisms of health and disease are taught primarily at the individual and population level with some molecular and cellular aspects included. Designed for all students to be able to properly nourish animals in their care during their career. Pr.: Third-year standing in the College of Veterinary Medicine or graduate student.	Thomson
CS 715 /D	3/G	Spring	2nd yr	**Radiology** Armbrust, Biller	(3) II. The theory and principles of x-rays, production and interpretation of radiographs and exposure factors, special radiographic methods, film storage and handling, processing, safety measures, and biologic effects of radiation. Two hours lec. a week. Pr.: Second-year standing in the College of Veterinary Medicine.	Biller
CS 724 /C	3/G	All 3 week rotations	4th yr	**Veterinary Diagnostic Imaging I** Armbrust, Biller	(3) I, II, S. Radiographic, ultrasonographic, and nuclear imaging in the clinical setting, with emphasis on making/identifying images of diagnostic quality, interpretation, indications for imaging, and radiation safety. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Biller
CS 725 /C	3/G	All 3 week rotations	4th yr	**Clinical Anesthesia** Hodgson, Mason, McMurphy, D. Rankin	(3) I, II, S. Practical instruction in the skills and techniques used in the practice of clinical veterinary anesthesia of both large and small animals. May be repeated once. Pr.: Fourth-year standing in the College of Veterinary Medicine.	McMurphy
CS 726	2-3/CR	7E for 3 credits 2010-11	4th yr	**Advanced Dairy Production Management** UC Davis	(2-3) I, II, S. For students desiring dairy production training. Emphasis will be on monitoring disease, preventative medicine, metabolic disorders and reproductive management. Replacement heifer nutrition and management will be addressed.	Thomson/Apley
CS 726 /O	1-6/CR	All	4th yr	**Clinical Externship/Programmed Study** (includes Amer. Royal)	(1-6) I, II, S. Provides the professional student with the opportunity to study with specialists not available at Kansas State University or	Rush

					in unique areas of veterinary medical practice or research. Pr.: Fourth-year standing in the College of Veterinary Medicine and the approval of the externship or program of study by the course coordinator.	
CS 726 /O	2 or 4/CR	2 credits offered all rotations **except** 1A&B, 3A&B, 5A&B, 7A&B, 8A&B which are 4 credit rotations	4th yr	**MidWestVET (Omaha)**	(2 or 4) I, II, S. MidWestVet is a private, small animal, referral only practice and is an affiliate program of the KSU VMTH. Students will complete one week at the MWV clinic and one week will be chosen by the student as long as there is availability. There will be student training opportunities at the Animal Emergency Clinic (AEC), Bellevue Animal Hospital, Veterinary Eye Specialists and/or the Omaha Zoo. If the MWV rotation is taken for 4 weeks, students will participate at the Nebraska Humane Society for 2 consecutive weeks (only 10 spots available). This will be an exciting learning environment for all students who participate. Housing will be provided but transportation to/from Omaha and food will be the student's responsibility.	Fingland
CS 727 /C	2/G	All 2 week rotations	4th yr	**Ophthalmology** A. Rankin	(2) I, II, S. The study of the surgery and medical diagnosis and treatment of ocular disease in animals in the setting of the veterinary medical hospital. Problem solving, differential diagnosis, diagnostic procedures, and medical and surgical therapy will be emphasized using veterinary patients. Pr.: Fourth-year standing in the College of Veterinary Medicine.	A. Rankin
CS 728 /D	2/G	Fall	3rd yr	**Theriogenology – Companion Animal Core** Coetzee, Ferrer, Laflin, Larson	(2) I. First 5 weeks, consideration of prevention, diagnosis, and treatment of disease, and maintenance of health and productivity of the genital tract of all species. Second 5 weeks students review companion animal (equine, canine, and feline) content. Pr.: Third-year standing in College of Veterinary Medicine.	Larson
CS 729 /D	5/G	Fall	3rd yr	**Veterinary Surgery I** Hodgson, E. Klocke, Mason, D. Rankin, Renberg, Roush, Towle	(5) I. Introduction to the basics of veterinary anesthesia, surgical techniques, and patient management by a systems design. Problems common to all species of domestic animals will be presented to provide foundations of surgical knowledge and experience. Four hours lec and 1 lab per week. Pr.: Third-year standing in College of Vet Med. Pr: Satisfactory completion of all required second year veterinary courses.	E. Klocke
CS 730 /D	4/G	Spring	3rd yr	**Veterinary Surgery II** Anderson, Apley, W. Beard, Hodgson, Laflin, Lillich, Mason, Miesner	(4) II. A continuation of Veterinary Surgery I. Introduction to the basics of veterinary anesthesia, surgical techniques, and patient management by a systems design. Problems common to all species of domestic animals will be presented to provide foundations of surgical knowledge and experience. Three hours lec. and one lab a week.	Lillich
CS 737 /D	2/G	Fall	3rd yr	**Exotic Pet Medicine** Carpenter Others: Dryden, Okesson	(2) I. Entry-level knowledge base for the species likely to be encountered in a private practice setting including snakes/small reptiles, caged birds, and small mammals (ferrets, gerbils, hamsters, chinchillas). Pr.: Third-year standing in the College of Veterinary	Carpenter

					Medicine.	
CS 738 /C	2/G	All 2 week rotations	4th yr	**Clinical Oncology** Higginbotham, McCaw	(2) I, II, S. The approach to diagnosis and treatment of cancer-bearing patients will be emphasized. Skills to master include fine needle aspirates and basic cytology, biopsy techniques (punch, wedge, pinch and tru-cut), bone marrow aspirate and core biopsy procedures and chemotherapy administration. A greater depth of understanding of the biologic behavior and treatment options of commonly seen tumor types (lymphoma, mast cell tumors, hemangiosarcoma, osteosarcoma, etc.) and chemotherapy safety will be emphasized. Medical management of cancer-related problems as well as treatment of therapy-induced side effects will also be covered. Pr.: Fourth-year standing in the College of Veterinary Medicine.	McCaw
CS 739 /C	2/G	All 3 week except 2D, 4D, 6E, 9A and 9B Derm is 3 weeks in duration but only meets Tu, W, Th	4th yr	**Dermatology / Medicine** Bagladi	(2) I, II, S. Designed to emphasize dermatology diagnostic work-up and management of dermatologic cases. May include proper techniques for performing procedures such as skin scrapings, bacterial and fungal culturing, performing cytology, obtaining skin biopsies, ear cleaning and trichography. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Bagladi
CS 740 1/C	1/CR	Spring	3rd Yr	**Topics in Emergency Medicine** McMurphy (25 student max.)	(1) II. Presentations of cases in the ICU or cases that were recently seen on emergency. Current literature that is relevant to the case will be discussed. Pr.: Third-year standing in the College of Veterinary Medicine.	McMurphy
CS 741 /D (DVM 702)	1/CR	Spring	3rd yr	**Veterinary Practice Management**	(1) II. This course provides a foundation in business management and marketing to prepare veterinary students for success in private veterinary practice. Lectures include personal marketing, business organizational structure, gauging and monitoring production, management practice finance, recruitment, personnel management, effective practice marketing (internal and external), achieving better client satisfaction and retention, and the road to practice ownership. Pr.: Third-year standing in the College of Veterinary Medicine or consent of instructor.	Fingland
CS 742 /D	0-1/CR	Fall, Spring	3rd yr	**Clinical Skills** Various CS Faculty	(1) II. Demonstration, instruction and experience in physical examination and diagnostic skills necessary for routine veterinary practice. Pr.: Third-year standing in the College of Veterinary Medicine. Three hours lab a week.	Grauer (fall) Davis (spring)

CS 746 /C	2/G	Spring, Summer Offered only 1A, 1B, 1C, 8C, 9A and 9B	4th yr	**Clinical Equine Theriogenology** Ferrer	(2) II, S. Students will participate in routine procedures that develop skills in handling horses, rectal exams, ultrasonography, semen collection, artificial insemination, uterine therapies and minor surgical procedures. Pr.: Fourth-year standing in College of Veterinary Medicine and have taken CS 728 or CS 783.	Ferrer
CS 747 /D	2/G	Spring	3rd yr	**Systems Integration of Small Animal Internal Medicine** Harkin	(2) II. Elective course in small animal internal medicine. This course will provide in-depth learning of complex issues regarding case management of the canine and feline patient with an integrated systems approach. The course will also introduce controversial and emerging topics in small animal internal medicine. Pr.: CS 709 and CS 711.	Harkin
CS 748 /C	2/G	All 2 week rotations	4th yr	**Food Animal Local Practice** Laflin, M. Jones	(2) I, II, S. A study of the role of the veterinarian in the practice of clinical medicine in livestock production units. Students will work under faculty supervision in ambulatory and local practice settings. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Laflin
CS 749 /C	2/G	All 2 week rotations	4th yr	**Food Animal Medicine & Surgery** Anderson, Jones, Laflin, Miesner	(2) I, II, S. A study of individual food animal medicine and surgery. Students will work under faculty supervision in an in-house setting. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Anderson
CS 750 /C	2/G	All 2 week rotations	4th yr	**Equine Medicine** L. Beard, Davis, Ferrer, Rush	(2) I, II, S. This course will offer general exposure to equine internal medicine and theriogenology. Students will be responsible for diagnoses, treatment and nursing care of out-patients, in-patients and emergency duties. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Davis
CS 751 /C	2/G	All 2 week rotations	4th yr	**Equine Surgery** W. Beard, Ferrer, Lillich	(2) I, II, S. This course will offer general exposure to equine surgery and theriogenology. Students will be responsible for diagnoses, treatment and nursing care of out-patients, in-patients, and emergency duties. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Davis
CS 752 /C	3/G	All 3 week rotations	4th yr	**Small Animal Internal Medicine** Grauer, Harkin, KuKanich, Schermerhorn	(3) I, II, S. The study of internal medicine in the setting of the Veterinary Medical Teaching Hospital. Students will be engaged in the diagnosis and management of complex cases referred to the internal medicine service. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Harkin
CS 753 /C	3/G	All 3 week rotations	4th yr	**Small Animal General Medicine** Akers, Artzer, L. Blevins, Nelson	(3) I, II, S. The study of preventative medicine, general practice medicine, and specialty medicine. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Harkin

CS 754 /C	3/G	All 3 week rotations	4th yr	**Clinical Small Animal Soft Tissue Surgery** E. Klocke, Renberg, Roush, Towle	(3) I, II, S. This course is designed to train senior or elective veterinary students in the diagnosis and treatment of small animal soft tissue and general surgical diseases through participation in the Small Animal Soft Tissue Service of the Veterinary Medical Teaching Hospital. Pr.: Fourth-year standing in the KSU College of Veterinary Medicine.	Roush
CS 755 /C	3/G	All 3 week rotations	4th yr	**Clinical Small Animal Orthopedic Surgery** N. Klocke, Renberg, Roush	(3) I, II, S. This course is designed to train senior or elective veterinary students in the diagnosis and treatment of small animal orthopedic surgical diseases through participation in the Small Animal Orthopedic Service of the Veterinary Medical Teaching Hospital. While on SAS-ortho, students will spend one week in dentistry (primary care). Pr.: Fourth-year standing in the KSU College of Veterinary Medicine.	Roush
CS 756 /C	2/G	All 2 week rotations except 1C	4th yr	**Comparative Cardiology** Borgarelli	(2) I, II, S. Designed to expose students to the cardiovascular system of domestic animals, emphasizing clinical management and understanding of common congenital and acquired cardiac diseases. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Borgarelli
CS 757	1/CR	Spring	4th year	**Equine Lameness I** Lillich	Lameness examination and diagnosis and the first half of a review of specific lameness processes will be presented. 12 lectures, 3 labs. Pr: Fourth-year standing in the College of Veterinary Medicine.	Lillich
	1/CR	Spring	Satisfactory completion of all 2nd yr veterinary courses	Equine Lameness Lillich	(1) II. Lectures will cover common causes of lameness emphasizing specific portions of the lameness exam providing the foundation for diagnosis and treatment of specific equine musculoskeletal diseases. Students will perform lameness exams including diagnostic imaging to correctly diagnose the "unknown lameness" and prescribe appropriate therapeutic options. 12 lectures, 3 labs. Pr: Satisfactory completion of all required second year veterinary courses.	
CS 759 /D	1/G	Spring	3rd yr	**Advanced Exotic Pet Medicine/Introduction to Zoological Medicine Elective** Carpenter	(1) II. Advanced study of the diseases, medicine, and captive management of non-traditional species including companion birds, reptiles, rabbits, ferrets, and rodents; and an introduction to zoo animal and wildlife medicine. Pr.: Third-year standing in the College of Veterinary Medicine.	Carpenter
CS 760 /D	1/CR	Spring	2nd and 3rd yr	**Topics in Global Veterinary Medicine** Renberg	(1) II. Topics in Global Veterinary Medicine will provide an overview of the role veterinarians can and do play in the world. The student will gain an appreciation for the importance of veterinarians and the wide range of activities in which they participate. Students should gain an understanding of the varying uses and attitudes about animals around the world. Students will gain an understanding of some of the difficulties the world faces pertaining to livestock production, animal use and social tensions. The student should be better prepared at the conclusion of the course to engage in discourse or active participation on a variety of globally relevant veterinary topics.	Renberg

CS 761 /C	2/G	All 2 week rotations	4th yr	**Supplemental Food Animal Local Practice** Jones, Laflin	(2) I, II. Additional study of the role of the veterinarian in the practice of clinical medicine in livestock production units. Students will work under faculty supervision in ambulatory and local practice settings. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Laflin
CS 763 /C	2/G	2 week rotations 2A, 2C, 3A, 4B, 5C, 6A, 7A, 8A, 8C and 9A	4th yr	**Laboratory Animal Medicine** Olson	(2) I, II, S. The study of laboratory animal medicine or comparative medicine to include colony health monitoring, preventive medicine, surgery, investigator support, and regulatory oversight. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Rush
CS 764 /D	1/G	Fall, Spring	3rd yr	**Beef Cattle Breeding Evaluation**	(1) I, II. Female breeding soundness and pregnancy detection in beef cattle through rectal palpation with and without ultrasound technology. Some discussions of infectious diseases that impair reproduction. 3-hour lab each week. Pr.: Third-year standing in College of Veterinary Medicine.	Laflin
CS 766 /O	1/CR	All	1st, 2nd and 3rd yr	**Food Animal (Mixed) Practice Mentorship**	(1) I,II,S. Structured one week (45 contact hrs) mentorship in a large animal (bovine) practice designed to promote clinical skills training in a private practice setting with practitioners who have completed orientation training and have expressed an interest in training and mentoring veterinary students. To be completed during the first 3 years of veterinary school, prior to entering the 4th year.	Elmore/Rush
CS 767 /O	1/CR	All	1st, 2nd and 3rd yr	**Small Animal Practice Mentorship**	(1) I,II,S. Structured one week (45 contact hrs) mentorship in a small animal practice designed to promote clinical skills training in a private practice setting with practitioners who have completed orientation training and have expressed an interest in training and mentoring veterinary students. To be completed during the first 3 years of veterinary school, prior to entering the 4th year.	Elmore/Rush
CS 768 /O	1/CR	All	1st, 2nd and 3rd year	**Non-Traditional Practice Mentorship**	(1) I,II,S. Structured one week (45 contact hrs) mentorship in a nontraditional veterinary setting designed to promote skills training and awareness of nontraditional or exclusive practice experiences in a private or public practice setting with veterinarians who have completed orientation training and have expressed an interest in training and mentoring veterinary students. To be completed during the first 3 years of veterinary school, prior to entering the 4th year.	Elmore/Rush
CS 769 /D	2/G	Summer, Fall Offered 2A and 4C	4th yr	**Advanced Feedlot Production Management** Apley, Thomson	(2) I, S. Students desiring feedlot/stocker production training. Focus on effects of nutrition, preventative medicine, environment, personnel training and other issues on the health of growing/finishing cattle.	Apley - Summer Thomson – Fall
CS 770 /D	2/G	Spring, Summer Offered 1C and 8B	4th yr	**Advanced Cow-Calf Production Management** Larson, Sanderson, White	(2) II, S. For students desiring in-depth cow-calf production training including management and assessment of production data, nutrition and ration balancing, reproductive strategies, quality assurance and economic and Standardized Performance Analysis of cow-calf enterprises.	White

CS 771 /C	1/G	All	4th yr	**General Dentistry**	(1)I, II, S. Skills and concepts common to general dentistry practice in the feline and canine, pre-operative exams, day-long wet lab to take and interpret digital intraoral radiographs, extract teeth, and perform dental nerve blocks. Also may participate in the evaluation, diagnosis, and treatment of primary care patients. Pr.: 4th-year standing in College of Veterinary Medicine.	Akers, Artzer
CS 772 /C	2/G	All 2 week rotations	4th yr	**Equine Field Service** C. Blevins	(2) I, II, S. This course will offer general exposure to equine field service and theriogenology. Students will be responsible for diagnoses, treatment and nursing care of out-patients, in-patients, and emergency duties. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Davis
CS 773 /D	1/G	Spring	3rd Yr	**Introduction to Veterinary Phytotherapy** Gehring	(1) II. Fundamentals of phytotherapy: traditions of herbal medicine, evaluating research, regulation of products, interactions with conventional drugs, introduction to medical botany, conserving medicinal plant species, issues using medicinal plants within evidence-based veterinary medicine. Pr.: AP 770, DMP 801, Third-year standing in College of Veterinary Medicine.	Gehring
CS 774 /D	1/G	Spring	4th Yr	**Advanced Rural Food Animal Business Management**	(1). II. An elective course that incorporates economic and food animal practice management skills. Course will focus on business aspects of agricultural industries and skills to manage a food animal practice. Pr.: Fourth-year standing in College of Veterinary Medicine.	White
CS 775 /O	2/CR	All	4th Yr	**Primary Care Externship**	(1-2) I, II, S. Externships emphasizing primary care for small animal, large animal or mixed species at an approved location. Facility must have a veterinarian on-site all day, every day. Pr.: Fourth-year standing in the College of Veterinary Medicine **(2)** I, II, S. Externships emphasizing primary care for small animal, large animal or mixed species at an approved location. Facility must have veterinarian on-site all day, every day. Pr.: Fourth-year standing in the College of Veterinary Medicine	Rush
CS 776 /D	1/G	Spring	3rd yr	**Advanced Urinary** Grauer	(1) II. This elective builds on the case-based urinary section of CS 711. Focus of this class will be on disease pathophysiology and treatment. Pr.: Third year standing in the College of Veterinary Medicine.	Grauer
CS 777	1/CR	Fall, Spring	1st, 2nd or 3rd yr	**Practicing Veterinary Medicine in a Multicultural Society** Elmore	(1) I, II. Diversity in the broadest sense of the word (cultural, racial, sexual, gender, age, religious, etc.) will be explored in the context of the practice of veterinary medicine. Understanding diversity issues can positively affect the bottom line of nearly every veterinary practice. Pr.: First, second or third year standing in the College of Veterinary Medicine.	Elmore
CS 778	1/G	Fall, Spring	1st, 2nd or 3rd yr	**The Basics of Bovine Theriogenology** Elmore	(1) I, II. This class is designed to provide students enrolled in the veterinary curriculum a very practical knowledge base regarding bovine reproduction. Pr.: First, second or third year standing in the College of Veterinary Medicine.	Elmore

CS 779	2/G	Spring	3rd yr	**Clinical Pharmacology**	(2) II. Course focuses on the clinical application of drugs in veterinary species. Clinical pharmacologists and clinicians from multiple clinical specialties will focus on commonly used drugs. Students will be expected to review and build upon their previous pharmacology and medicine courses. Emphasis will be placed on administration (including routes, dosing calculations, and methods), avoiding adverse drug reactions and interactions, evaluating patient response, written and verbal client communication, and utilizing reference resources to select and properly use veterinary therapeutics. Pr.: Third-year standing in College of Veterinary Medicine.	Apley
CS 782	1/G	Spring (2012)	3rd yr	**Equine Medicine Elective** L. Beard, Davis	(1) II. This course is designed to be complementary to CS 710. The material presented in this class will focus on diagnostic procedures and case presentations that will not be covered in the core curriculum. Pr.: Third-year standing in College of Veterinary Medicine.	L. Beard/Davis
CS 783	1/G	Fall	3rd yr	**Therio Companion Animal Elective**	(1) I. 5 weeks of equine, canine, and feline theriogenology. Pr.: Third year standing in the College of Veterinary Medicine.	Larson
CS 784	2/G	Spring	4th yr and taken CS 754 prior to this course	**Advanced Soft Tissue Surgery**	(2) II. Increase student exposure to soft tissue surgical theory, techniques and importance of veterinary literature in practice. Course will provide practical, hands-on surgical experience that mimics small animal general practice by utilizing both cadavers and appropriate clinical cases. Course allows students interested in surgery in private practice or those considering internship and residency training an opportunity to further explore the field. Pr.: Fourth-year standing in College of Veterinary Medicine and must have completed CS 754 prior to participating in this course.	E. Klocke
CS 785	3/G	Fall	1st, 2nd, 3rd yr	**Veterinary Care and Management of South American Camelids** Anderson [Format is 1 hr in classroom, 2 hrs viewing online lectures that are discussed in class]	(3) I. This course will provide detailed information regarding nutrition, herd health, breeding management, medicine, neonatal care, and surgical problems of llamas and alpacas. Lab required. Pr.: 1st, 2nd or 3rd-year standing in the College of Veterinary Medicine at Kansas State University.	Anderson
CS 786	1/G	Fall	2nd or3rd yr	**The Learning Curve of Equine Practice** L. Beard, Davis	(1) I. Elective will cover various aspects of equine practice, not usually covered in traditional didactic lectures. Topics include equine husbandry, communication issues and insurance, horse colors, genetics, and genetic related diseases, aspects of equine practice and practice management, drug and medication rules for performance horses, and preventative medicine. Pr.: 2nd or 3rd year standing in the College of Veterinary Medicine.	L. Beard/Davis
CS 787	1/G	Fall	3rd yr	**Pain Management** McMurphy	(1) I. Course will discuss mechanisms of pain and certain pain syndromes and the drugs and techniques available to provide analgesia. Pr.: Third-year standing in the College of Veterinary Medicine.	McMurphy
CS 788	4/G	Fall 4B/4C	4th yr	**Advanced Equine Studies**	(4) I. Students will have opportunities for routine and advanced clinical skills training and case management. Course discussions and	Davis

					case presentations will be targeted for the equine interested student and will therefore present advanced material; case discussion and rounds materials will differ from core rotations at other times of the year. Pr.: Fourth-year standing in the College of Veterinary Medicine.	
CS 789	2/G	Fall	3rd yr	**Theriogenology Production Animal Core**	(2) I. First 5 weeks, consideration of prevention, diagnosis, and treatment of disease, and maintenance of health and productivity of the genital tract of all species. Third 5 weeks students review large animal livestock content. Pr.: Third-year standing in College of Veterinary Medicine.	Larson
CS 790	1/G	Fall	3rd yr	**Therio Production Animal Elective**	(1) I. 5 weeks of livestock theriogenology. Pr.: Third year standing in the College of Veterinary Medicine.	Larson
CS 791	1/G	Spring	1st, 2nd, 3rd yr	**Behavior of Domestic Animals**	(1) II. Introduction to the behavior of different species of domestic animals: normal and abnormal behavior, clinical disorders, separation anxiety, identification of dominant breeds, communication, socialization and reproductive behavior. Pr: 1st, 2nd, or 3rd year student standing in the College of Veterinary Medicine.	Bergamasco
CS 792	1/CR	Spring	Satisfactory completion of all required 2nd yr veterinary courses	**Advanced Topics in Veterinary Soft Tissue Surgery**	(1) II. Technical and intellectual lectures will cover aspects of soft tissue surgery. Technical lectures will include: instrument handling, hand ties, suture material, stapling devices and surgical lasers. Intellectual lectures will include: surgical approaches to the body cavities, intra-operative complications and post-operative management. 12 lectures, 3 labs. Pr: Satisfactory completion of all required second year veterinary courses.	Lillich

PROFESSIONAL/GRADUATE COURSES 800-849 (Given for VM credit for veterinary students and graduate credit with the permission of the instructor for graduate students.) Faculty Senate approves these courses.

# / Type	Credits/ Grading	Offered	Standing	Course	Catalog Description	Coordinator
CS 800 /Var	1-9/ G	All	4th yr	**Problems in Medicine or Surgery**	(1-9) I, II, S. The course provides for the study of medical or surgical problems. The student, in conference with the major professor, outlines the methodology and procedures, conducts the study, and prepares a detailed report. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Rush

CS 802 /C	3/G	All 3 week rotations	4th yr	**Supplemental Clinical Small Animal Soft Tissue Surgery** E. Klocke, Renberg, Roush, Towle	(3) I, II, S. Additional training in the diagnosis and treatment of small animal soft tissue and general surgical diseases through participation in the Small Animal Soft Tissue Service of the Veterinary Medical Teaching Hospital. Pr.: Fourth-year standing in the KSU College of Veterinary Medicine.	Roush
CS 803 /C	3/G	All 3 week rotations	4th yr	**Supplemental Small Animal Internal Medicine** Grauer, Harkin, KuKanich, Schermerhorn	(3) I, II, S. Additional topics in internal medicine. The student may be required to participate in a special problem with a written or oral report. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Harkin
CS 806 /C	2/G	All 2 week rotations	4th yr	**Supplemental Equine Studies** L. Beard, W. Beard, C. Blevins, Davis, Lillich, Rush	(2-4) I, II, S. An opportunity to pursue additional equine studies (medicine, surgery, etc.) in depth and assume substantial responsibility for care of hospitalized cases. Students will present a seminar on a medicine or surgical subspecialty and pursue a special problem. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Davis
CS 814 /C	3/G	All	4th yr & CS 724	**Veterinary Diagnostic Imaging II** Armbrust, Biller	(3) I, II, S. Students will receive advanced training in radiologic interpretation and alternate imaging procedures. Emphasis will be on didactic and hands-on training in ultrasound imaging. Pr.: CS 724.	Biller
CS 818 /C	3/G	All 3 week rotations	4th yr	**Supplemental Clinical Small Animal Orthopedic Surgery** N. Klocke, Renberg, Roush	(3) I, II, S. Additional training in the diagnosis and treatment of small animal orthopedic surgical diseases through participation in the Small Animal Orthopedic Service of the Veterinary Medical Teaching Hospital. Pr.: Fourth-year standing in the KSU College of Veterinary Medicine.	Roush
CS 822 /C	2-4/G 3 credits 2010-11	All 3 wk rotations except 3D, 4E, 6D,7D, 8D	4th yr	**Exotic Animal, Wildlife, and Zoo Animal Medicine** Carpenter	(2-4) I, II, S. Study of exotic, wildlife, and zoo animal medicine through participation in the clinical service in the Veterinary Medical Teaching Hospital. Problem solving, differential diagnosis, diagnostic procedures, and medical and surgical therapy of non-domestic animals will be emphasized. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Carpenter
CS 823 /C	3/G	All	4th yr	**Companion Small Animal Medicine** Harkin	(3) I, II, S. Additional elective studies of preventative medicine, general practice medicine, and specialty medicine. Emphasis on animal behavior, canine theriogenology, and general practice experience. The student may be required to participate in a special problem with a written or oral report. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Harkin
CS 824	1/CR	Spring	3rd yr	**Life-Long Learning Skills for Professional Students**	(1) II. Develop basis skills in veterinary students and other professional students to help them assess recent scientific literature and continuing education information and help them choose which information to incorporate into their professional skills and knowledge base. Pr.: Third-year standing in the veterinary curriculum.	Roush

CS 825	1-4/CR	All	1st, 2nd, 3rd or Grad	**International Veterinary Study Tours** Various Faculty [Distance course coordinated through OIP: Office of Internat'l Programs]	(1-4) I, II, S. Faculty-led trip for students to explore veterinary medicine in a foreign country. Prior to travel, students will learn about the country through lectures, research, presentations. During the trip they will interact with nationals in the veterinary profession and experience the culture. Pr.: Enrolled as a 1st-3rd year or grad student in the College of Vet Med. Additional students admitted with discretion of faculty leading the tour.	Renberg
CS 826	2/G	Fall	1st, 2nd, 3rd yr or Grad Student	**Contemporary Issues in Veterinary Medicine** Thomson	(2) I. Investigation of animal welfare, food safety and other societal concerns for animals and the veterinary profession. This course will help students learn to utilize scientific literature along with current events media to critically evaluate these contemporary issues. This class will expose students to many issues that pet owners, food producers and veterinarians face every day. Guest lecturers or moderators will be included for proper background debated topics with a focus on effective communication of evidence based decisions through writing and public speaking. Pr.: First, Second or Third-year standing in the College of Veterinary Medicine or Graduate School.	Thomson
CS 827	2/G	All	1st, 2nd, 3rd yr or Grad Student	**Health and Management of Llamas and Alpacas – Distance Course** (Not for KSU veterinary students)	(2) I, II, S. This course will provide detailed information regarding nutrition, herd health, breeding management, medicine, neonatal care, and surgical problems of llamas and alpacas. Pr.: 1st, 2nd or 3rd-year standing in a College of Veterinary Medicine or enrolled as a graduate student.	Anderson
CS 828 Pending	2/G	Spring	3rd-yr or grad stud	**Veterinary Management of Sheep and Goats** **(effective date: spring 2012)**	(2) II. Course content is delivered both as online seminars via KSOL and case-based discussions and problem solving exercises in the classroom on herd management, preventative health care, nutrition, medicine, diseases, reproduction, and surgery of sheep and goats. Pr.: 3rd year standing in College of Veterinary Medicine or graduate student on the Manhattan campus of Kansas State University.	Anderson
CS 829 Pending	1/G	All	2nd, 3rd yr vet stud or grad student	**Veterinary Management of Small Ruminants a Distance (DCE) course** **(effective date: summer 2011)** K-State vet students are not allowed to take this course.	(1) I, II, S. Course content is provided entirely online as seminars delivered via distance education in KSOL on herd management, preventative health care, nutrition, medicine, diseases, reproduction, and surgery of sheep and goats. Pr.: 2nd or 3rd year standing in a College of Veterinary Medicine other than KSU or graduate student.	Anderson
CS 830	2/CR	Spring	Pr.: 2nd or 3rd year standing or graduate student	**Spanish for the Veterinarian** White, Laflin	An elective course that can adequately teach entry level Spanish at a clinically functional level. Audio-visual teaching utilizing immersion philosophy is utilized to provide the material course work. Pr.: 2nd or 3rd year standing in the College of Veterinary Medicine or enrolled as a graduate student.	White

CS 831	1/CR	Fall	CS715 Radiology, 3rd yr standing	**Veterinary Ultrasonography** Armbrust	(1) I. Course content will be delivered both as online seminars via KSOL and case-based discussions. The physics, principles of use, and common artifacts of ultrasound will be covered as it relates to veterinary diagnostic imaging. Ultrasound imaging of the thorax (non-cardiac), abdomen, musculoskeletal system, and other areas (eye, thyroid/parathyroid) will be covered, predominantly in small animals. The course will cover both normal and pathologic ultrasound findings. Pr: CS715 Radiology, 3rd year standing in the College of Veterinary Medicine or graduate student on the Manhattan campus of Kansas State University.	Armbrust

GRADUATE COURSES 850-900 (Given for graduate credit only)

# / Type	Credits/ Grading	Offered	Standing	Course	Catalog Description	Coordinator
CS 850 /O	1-6 /CR	All	Consent	**Research in Medicine**	(1-6) I, II, S. An attempted solution of some of the medical and parasitological problems confronting the practitioner of veterinary medicine. Pr.: Consent of staff.	Rush
CS 851 /D	1-5/G	All	DVM or consent	**Breeding Diseases**	(1-5) I, II, S. Advanced studies of the breeding diseases of domestic animals. Pr.: DVM degree or consent of staff.	Rush
CS 852 /D	3/G	Fall-Odd	DVM or consent	**Interpretation of Radiology Studies of Body Systems** Armbrust, Biller	(3) I. Advanced discussions of radiologic interpretation, indications and interpretation of alternate imaging procedures (MRI, CT, nuclear medicine, ultrasound). Pr.: DVM degree or consent of department head prior to registration.	Armbrust
CS 854 /D	1-3/G	All	DVM or consent	**Systemic Medicine I**	(1-3) I, II, S. Study of the medical aspects of diseases of the urinary, nervous, and integumentary systems, and special senses. Pr.: DVM degree or consent of department head.	Harkin
CS 855 /D	1-3/G	Fall	DVM or consent	**Systemic Medicine II**	(1-3) I. Study of the medical aspects of diseases of the special senses, cardiovascular, respiratory, musculoskeletal, and endocrine systems. Pr.: DVM or consent of department head.	

CS 858 /O	4/G	Spring, every 3rd yr – offered next in Spring 2013	DVM or consent	**Orthopedic Surgery** Renberg, Roush	(4) II. Fundamentals, theory, and practice concerning genetic metabolic, infectious, neoplastic and traumatic diseases of bones and joints. Pr.: DVM degree or consent of department head.	Roush
CS 859 /O	1/G	Fall Spring	DVM or consent	**Clinical Sciences Seminar** All House Officers (effective Spring 2012)	(1) I, II. A required seminar for all house officers and graduate students in the Department of Surgery and Medicine. One-hour conference weekly. May re-enroll for total maximum of two credits. Pr.: Consent of department head. (I, II, S) **(1) I. II.** A required seminar for all house officers and graduate students in the Department of Surgery and Medicine. One-hour conference weekly. May re-enroll for a total maximum of two credits. **Pr.: Graduate Student.**	Lillich
CS 861 CS 862 CS 863 /D	2/G	Fall	Grad Student	**Advanced Large Animal Surgery 1** Lillich **Advanced Large Animal Surgery 2** (was 864) Lillich **Advanced Large Animal Surgery 3** (was 865) Lillich **861 in Fall 2010** **862 in Fall 2011** **863 in Fall 2012**	(2) I. **Advanced Large Animal Surgery 1**: In depth review and discussion of current basic surgical science and foundations of sound surgical practices. (2) I. **Advanced Large Animal Surgery 2**: Concentrated examination of the pre-operative, surgical and post-operative requirements of soft tissue surgical diseases/disorders of large animals. (2) I. **Advanced Large Animal Surgery 3**: Concentrated examination of the pre-operative, surgical and post-operative requirements of orthopedic or hard tissue surgical diseases/disorders of large animals. Pr.: DVM (or the equivalent) or Masters of Science in biological or medical sciences. Courses will be offered in sequential order, one each fall semester. Therefore, each individual course will be offered every 3rd year.	Lillich
CS 867 /O	1/CR	Fall	Grad Student	**Advanced Diagnostic Imaging - Small Animal** Biller	(1) I. Case presentation/discussion of diagnostic imaging techniques used in small animal veterinary practice, including radiography, ultrasonography, nuclear imaging, magnetic resonance imaging, and computer tomography. Clinical cases will demonstrate imaging methods and technology used in the various body systems, with an emphasis on interpretation and clinical diagnosis. Pr.: DVM degree. Students may re-enroll for a maximum of three credits.	Biller
CS 868 /D	1/CR	Fall	DVM or consent	**Topics in Small Animal Internal Medicine I** Harkin	(1) I. Various topics in small animal internal medicine will be presented. Different topics will be covered in various years at instructor's discretion. In depth discussion of pathophysiology and recent advances in diagnostics and therapeutics. Course may be repeated with approval of instructor. Pr.: DVM Degree	Harkin
CS 869	1/G	Spring	DVM	**Topics in Small Animal Internal Medicine II**	(1) II. Various topics in small animal internal medicine will be	Harkin

					presented. One topic will be covered in a one-hour conference weekly. In-depth discussion of pathophysiology and recent advances in diagnostics and therapeutics. Course may be repeated with approval of instructor. Pr.: DVM Degree	
CS 870 /C	3/G	Summer	2nd yr & 3.0 GPA	**Diagnostic Methods in Feedlot Management** Kennedy This course is cross listed with the Diagnostic Medicine/Pathobiology (DMP 810) proposed course.	(3) S. Practical experience in feedlot operation and bovine necropsy diagnosis consisting of 40 hours in bovine necropsy and 320 hours of an on-location practicum in a cattle feedlot. Pr.: Successful completion of the first-year professional curriculum in the College of Veterinary Medicine with a cumulative GPA of 3.0 or better and no grade below a C.	Thomson
CS872 /D	1/CR	Fall	DVM	**Introduction to Small Animal Endoscopy** Renberg	(1) I. Introduction to the fundamentals of small animal (canine and feline) endoscopy, including respiratory, gastrointestinal, endoscopy, laparoscopy, and arthroscopy. Thirteen lectures with 2 laboratories will be offered. Offered Fall Semester only. Pr.: DVM degree and approval from course coordinator.	
CS 873	Var/CR	Fall, Spring	DVM or consent	**Advanced Topics in Small Animal Surgery** Renberg, Roush	(Var) I, II. Current and foundational information on techniques, theory, and management in small animal surgery. Pr.: DVM degree or approval of instructor.	Renberg
CS 874 /D	3/G	Fall, Spring	Grad Student	**Clinical Pharmacokinetics** Gehring	(3) I, II. An overview of pharmacokinetics with emphasis on practical implications for the clinician, including bioavailability, bioequivalence, residues in food of animal origin, dosage forms and regimens, therapeutic drug monitoring, drug interactions, interspecies differences, and the effect of disease on the pharmacokinetics of drugs. Background in physiology and statistics strongly recommended.	Gehring
CS 875 /D	2/G	Fall, Spring	Grad Student	**Advanced Pharmacokinetics** Gehring	(2) I, II. Advanced study of the concepts and practical applications of pharmacokinetics for graduate students of veterinary clinical pharmacology, including the design and conduct of pharmacokinetic studies and the analysis and modeling of pharmacokinetic data. Two hours lecture and two hours practical per week. Pr.: CS 874	Gehring
CS 878 /D	2/G	Fall (every 3 years)	DVM	**Wound Healing** W. Beard	(2) I. Didactic lectures on the science of wound healing physiology and on the clinical application of wound healing principles. Laboratory sessions will be incorporated to cover the principles of reconstructive surgery. Pr.: DVM degree	W. Beard
CS 879 /D	1/G	Fall, Spring	Grad Student	**Applied Production Medicine** Dritz, Larson, Renter, Sanderson, White	(1) I, II. Advanced training in agricultural production medicine research. Emphasis on answering production medicine problems through the appropriate design and interpretation of research models. Course is discussion-based and facilitated by a team of faculty members. Students will be expected to participate in weekly topic discussions. Pr.: Graduate Student.	White

CS 880	3/G	Spring	Grad Student	**Design and Interpretation of Production Livestock Field Trials** Apley, Larson, Thomson	(3) II. Veterinarians and other professionals are often called upon to test hypotheses in livestock production settings. The design and interpretation of these types of studies requires developing an understanding of the constraints and opportunities offered by a field research setting. This course will prepare students to design appropriate studies to answer research questions that can be addressed in production settings, and to interpret and present the results in a suitable manner.	Larson
CS 881	3/G	Spring	Ophtho or Sx Resident at KSU VMTH	**Veterinary Ophthalmic Surgery Techniques** A.Rankin Offered next in 2012	(3) II. Lectures will cover ophthalmic instruments and proper surgical techniques for commonly performed ophthalmic surgeries. Cadavers will be available to practice adnexal and corneal ophthalmic surgeries. Pr.: Ophthalmology or surgery resident at Kansas State University Veterinary Medical Teaching Hospital.	A. Rankin
CS 890 /O	Var/GR	All	Grad Student	**Clinical Science Problems**	(1-3) I, II, S. Advanced instruction in research topics and technologies, emphasizing various clinical disciplines. Pr.: DVM degree.	Rush
CS 895 /O	1/G	Fall - Odd yrs	Grad Student	**Research Methods** Mason, Roush, Rush, invited faculty	(1) I. Discussion of research design, grantsmanship, practical statistics, manuscript preparation, and ethics. Pr.: DVM degree or consent of department head.	Davis
CS 899 /O	1-6 /CR	All	Grad Student	**Thesis Research/Clinical Sciences** L. Beard, W. Beard, Davis, Lillich	(1-6) I, II, S. Individual research in any of the fields of Clinical Sciences. Pr.: Graduate standing. This work may form the basis for the MS Thesis or the MS Report.	Rush

Temporary courses offered under CS 800

Temporary graduate student courses previously offered under #890

CS	2/G	Spring	Grad Student	**Adv. Small Animal Endocrinology** Schermerhorn (2008)	Advanced topics in small animal endocrinology with emphasis on comparative aspects of this disease and its clinical manifestations in dogs and cats. Primary literature, review articles, and advanced texts will be used as the principle sources of information. Pr.: DVM degree.	Schermerhorn
CS	2/G	Fall (2010)	Grad Student	**Comparative Antimicrobial Clinical Pharmacology** Apley (2007)	Antimicrobial classes in veterinary medicine studied according to class characteristics and application in multiple veterinary species. Also FDA/CVM approval requirements, generic antimicrobials, susceptibility testing, pharmacodynamic modeling, antimicrobial resistance. Lectures, paper reviews, discussion, study assignments.	Apley
CS	1/G	Fall	Grad Student	**Clinical Applications of Respiratory Physiology** McMurphy (2008)		McMurphy
CS /	1/G	Spring	Grad Student	**Oncology Literature Review** Higginbotham, McCaw (2008)	This course will focus on critically reviewing the oncology literature. It will be a combination of review of the most current text in veterinary oncology (Withrow and Vail) as well as reviewing journal articles that either correlate with the text or recently published articles that are pertinent to the everyday practice of veterinary oncology. Students will be expected to participate in the presentation of the text as well as journal articles. Grading will be based upon attendance and class participation.	Higginbotham
CS /	1/G	Offer every 3 years	Grad Student	**Respiratory Physiology** (2005)		W. Beard
CS /	1/G	Spring	Grad Student	**Topics in Reconstructive Surgery** Renberg, Swaim, W. Beard (every 3 years)	This course will provide an overview of advanced surgical techniques in wound management and reconstructive surgery. It will enable the student to better appreciate the pathophysiology of wounds and tissue healing as well as provide detailed and current information on the clinical management of these cases. Pr.: DVM degree and advanced surgical training	Renberg
Courses from other departments which our faculty team teach						
DMP 759 /D	2/G	Spring	2nd yr	**Laboratory Animal Science** Olson	(2) II. Management and health of common species of laboratory animals. Pr: DMP 715	S. Olson
AP 770 /D	4/G	Fall	2nd yr	**Pharmacology** CS Faculty participation by invitation of course director. Apley, Coetzee, Davis, Gehring, Harkin, Mason, McMurphy, Renberg, Schermerhorn	(4) I. The basic principles of pharmacology, the interactions of drugs and living systems including fundamental principles of pharmacokinetics, pharmacodynamics, receptor-coupling, and mechanisms of action. A systems-based approach to drug classes will be emphasized. Four hours of lecture a week. Pr: AP 737 and 747 or equivalent.	

DVM 700/D	Zero credit	Fall	1st yr	Veterinary Career Development	(0)I. Introduction to career opportunities in veterinary medicine. (A required zero-credit class, no tuition is charged, class does not show up in iSIS)	Elmore
DVM 704/D	1/C	Fall	3rd yr	**Ethics and Jurisprudence**	(1) I. Socratic ethics are discussed along with the American Veterinary Medical Association's Code of Ethics and practical situations with a fundamental ethical basis. The Kansas Practice Act is explored as an example of governance in veterinary medicine. The role of animals in humans' well being is addressed along with the philosophy of animal welfare. The law and the practicing veterinarian are discussed with emphasis upon professional liability. Pr.: Third year standing in College of Veterinary Medicine.	Elmore

--------Approved Courses NOT currently offered--------

CS 720 /D*	1/CR	Summer	4th yr	**Supplemental Equine Theriogenology**	(1) I. An in-depth exposure to methods of maximizing reproductive efficiency in the mare and the stallion. Advanced equine reproductive physiology, diagnostics, and therapeutics are emphasized. Pr.: Fourth-year standing in the College of Veterinary Medicine.	Ferrer
CS 732 /D*	1/C	Fall	4th yr	**Diagnostic Techniques in Equine Medicine** Davis, Rush, L. Beard	(1) II. This elective course emphasizes the techniques needed for internal medicine. 12 lectures, 3 labs (covering endoscopy, BAL, TTW, V/S, spinal tap, epidural) emphasize skills, indications, and complications. Pr.: Fourth-year standing in the College of Veterinary Medicine.	L.Beard
CS 736 /D*	1/C	Summer	4th yr	**Pleasure Horse Medicine** Davis, other equine faculty	(2) I. In-depth exposure of most frequent concerns encountered by the equine practitioner. Topics will be addressed as problems rather than specific diseases. Management, differentials, diagnosis and therapy will be emphasized. Lectures 4 hours per week, no laboratory sessions. Pr: fourth year standing in College of Vet. Med.	Davis
CS 757 /C	1/C	Spring	4th yr	**Equine Lameness I**	(1) II. Lameness examination and diagnosis and the first half of a review of specific lameness processes will be presented. 12 lectures, 3 labs. Pr: Fourth-year standing in the College of Veterinary Medicine.	
CS 758 /C	1/C	Spring	4th yr	**Equine Lameness II** Lillich	(1) II. A continuation of Equine Lameness I. This course will complete the review of the most common lameness problems in horses. 12 lectures, 3 labs. Pr: CS 757.	Lillich
CS 765	3/G	Fall	4th yr	**Advanced Food Animal Practice**	(3) I. Emphasizes more advanced training and integrated Food Animal Practice. This elective should be first choice when seeking Supplemental Food Animal experience. Special activities will be arranged during this rotation.	Anderson

CS 812 /D*	1/CR	Spring – Odd yrs	3rd or 4th yr	**Production Medicine of Small Ruminants** Laflin, Other team teacher: C. Spaeth	(1) II. Lectures and other exercises emphasizing production medicine of small ruminants. Pr.: Third or Fourth-year standing in the College of Veterinary Medicine.	Laflin
CS 821 /D*	1/CR	Spring – Even years	3rd or 4th yr	**Vet Medicine for South American Camelids** Miesner	(1) II. The health concerns of South American Camelids are presented in terms of medicine, surgery, theriogenology, and associated disciplines. Pr: third or fourth year standing in the College of Veterinary Medicine, DVM degree.	Miesner

Course Type

C: Clinical
D: Didactic
O: Other (Externs & Grad Study)

Grading

CR:Credit/No Credit (counts on hours, but has no effect on GPA)
G:A-F Grade
GA: Pass/Fail or A-F (A or F shows on GPA; B,C, or D counts on hours but not on GPA. Only students know if they signed up for it this way – instructor cannot know.) This can be an option but can't be the only grading option offered for the class (per Sharon at Enrollment Svc)

Red Highlight = Courses going through the approval process.
I: Fall II: Spring S: Summer
Purple = Proposed course changes, going through expedited approval process.