

**CURRENT DEPARTMENT OF CLINICAL SCIENCES COURSESSummer 2009 (6/26/09)**

**PROFESSIONAL 600-699 Courses**

# / Type	Credits/ Grading	Offered	Standing	Course	Catalog Description	Coordinator
CS 611	2/G	Spring (2010)	General Univ. course	<b>Cow-Calf Health Systems</b>	(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.	Larson/White
CS 610	2/G	Fall (2009)	General Univ. course	<b>Feedlot Health Systems</b>	(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

**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	Spring	2nd yr	<b>Medicine I</b> Borgarelli, Harkin, Margiocco, Schermerhorn, Stenske	(4) II. 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.: Second-year standing in the College of Veterinary Medicine.	Harkin
CS 710 /D	4/G	Spring	3rd yr	<b>Medicine III</b> Allbaugh, L. Beard, Blevins, Davis, A. Rankin, Rush	(4) II. A study of the etiology, clinical signs, diagnosis, treatment, and control of infectious or contagious diseases which affect horses. Four hours lecture a week. Pr.: CS 709 and CS 711.	Rush
CS 711 /D	4/G	Fall	3rd yr	<b>Medicine II</b> Allbaugh, Bagladi, Grauer, McCaw, A. Rankin	(4) I. 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
CS 712 /D	4/G	Fall	3rd yr	<b>Food Animal Medicine</b> Anderson, Apley, Coetzee, Gehring, Jones, Lafin, Lubbers, 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	2/G	Spring	3rd yr	<b>Production Medicine</b> Coetzee, Lafin, Larson, Rush, Sanderson, Thomson, West, White Other Team Teachers: Dritz	(2) 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 service that veterinarians provide to beef feedlot, cow/calf, swine, dairy, equine and dog kennel segments of animal production. Pr.: Third-year standing in the College of Veterinary Medicine.	White

CS 714 /D	3/G	Spring	3rd yr	<b>Clinical Nutrition</b> Thomson Others: MMI, Mueller, Wileman	(3) II. The clinical aspects of nutrition as it relates to (a) medical and surgical management of diseased and convalescent animals (therapeutic nutrition), and (b) programs of disease prevention of the common domestic species of food-producing, companion animals, pet birds, and exotic animals (nutritional preventative medicine). Same as ASI 886 and AP 886. Pr.: Third-year standing in the College of Veterinary Medicine.	Thomson
CS 715 /D	3/G	Spring	2nd yr	<b>Radiology</b> 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	<b>Veterinary Diagnostic Imaging I</b> 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	<b>Clinical Anesthesia</b> 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	5E for 2 credits  7E for 3 credits	4 <sup>th</sup> yr	<b>Advanced Dairy Production Management</b> 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	<b>Clinical Externship/Programmed Study</b> (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 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.	Rush
CS 726 /O	2 or 4/CR	2 credits offered all rotations <b>except</b> 1A&B, 3A&B, 5A&B, 7A&B, 8A&B which are 4 credit rotations	4 <sup>th</sup> yr	<b>MidWestVET (Omaha)</b>	(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	<b>Ophthalmology</b> Allbaugh, 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	3/G	Spring	3rd yr	<b>Theriogenology</b> Coetzee, Ferrer, Laffin, Larson, and Sanderson Outside: R. Lillich, Pretzer	(3) II. Consideration of prevention, diagnosis, and treatment of disease, and maintenance of health and productivity of the genital tract of domestic animals. Three hours lec. a week. Pr.: Third-year standing in College of Veterinary Medicine.	Larson
CS 729 /D	5/G	Fall	3rd yr	<b>Veterinary Surgery I</b> Hodgson, E. Klocke, Mason, McMurphy, 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.	E. Klocke
CS 730 /D	5/G	Spring	3rd yr	<b>Veterinary Surgery II</b> Anderson, Apley, W. Beard, Hodgson, Laffin, Lillich, Mason, Miesner	(5) 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. Four hours lec and 1 lab per week. Pr.: Third-year standing in College of Vet Med.	Lillich
CS 737 /D	3/G	Fall	3 <sup>rd</sup> yr	<b>Zoological Medicine</b> Carpenter, West Others: Dryden, Okesson	(3) I. Study of the diseases, medicine, and captive management of non-traditional species, including: companion birds, reptiles, rabbits, ferrets, and rodents; wildlife; and zoo animals. Three hours lecture per week. Pr.: Third-year standing in the D.V.M. degree curriculum.	Carpenter
CS 738 /C	2/G	All 2 week rotations	4th yr	<b>Clinical Oncology</b> 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	4 <sup>th</sup> yr	<b>Dermatology / Medicine</b> 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	3 <sup>rd</sup> Yr	<b>Topics in Emergency Medicine</b> McMurphy (25 student max.)  (offered in Spring 2008)	(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	Fall	3 <sup>rd</sup> yr	<b>Veterinary Practice Management</b> (Not offered in Fall 2008 or Spring 2009)	(1) I, 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.	
CS 742 /D	1/CR	Spring	3 <sup>rd</sup> yr	<b>Clinical Skills</b> 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.	Davis/Grauer
CS 745 /	1/CR	Spring	3 <sup>rd</sup> yr	<b>Grand Rounds III</b> Various CS Faculty	(1) II. Integration of veterinary medical problem identification and solving. The emphasis will be on creation of a rule out list, development of diagnostic plan, data interpretation, medical and surgical treatments and patient follow-up care. Pr.: Third-year standing in the College of Veterinary Medicine.	Davis
CS 746 /C	2/G	Spring, Summer  Offered only 1A, 1B, 1C, 8C, 9A and 9B	4th yr	<b>Clinical Equine Theriogenology</b> Ferrer	(2) II, S. Students will participate in the daily activities of the College's equine theriogenology practice both in house and in the field. Routine procedures will provide an opportunity for students to develop their skills in handling horses, rectal examinations, ultrasonography, stallion semen collection, evaluation, artificial insemination, uterine therapies and minor surgical procedures. Postpartum and neonatal foal examinations will be performed. The student will have the opportunity to evaluate reproductive records on a breeding farm and acquaint him/herself with diverse management practices. Pr.: Fourth-year standing in the College of Veterinary Medicine or DVM degree.	Ferrer

CS 747 /D	2/G	Spring	3 <sup>rd</sup> yr  Offered in 2009?	<b>Systems Integration of Small Animal Internal Medicine</b> Harkin (Not offered 2007)	(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	4 <sup>th</sup> yr	<b>Food Animal Local Practice</b> Lafin, 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.	Lafin
CS 749 /C	2/G	All 2 week rotations	4 <sup>th</sup> yr	<b>Food Animal Medicine &amp; Surgery</b> Anderson, Jones, Lafin, 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	4 <sup>th</sup> yr	<b>Equine Medicine</b> 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	4 <sup>th</sup> yr	<b>Equine Surgery</b> 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	4 <sup>th</sup> yr	<b>Small Animal Internal Medicine</b> Grauer, Harkin, Schermerhorn, Stenske	(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	4 <sup>th</sup> yr	<b>Small Animal General Medicine</b> Akers, Artzer, Dixon-Jimenez, 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	4 <sup>th</sup> yr	<b>Clinical Small Animal Soft Tissue Surgery</b> 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	4 <sup>th</sup> yr	<b>Clinical Small Animal Orthopedic Surgery</b> 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	4 <sup>th</sup> yr	<b>Comparative Cardiology</b> Borgarelli, Margiocco	(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 760 /D	1/CR	Spring	2 <sup>nd</sup> and 3 <sup>rd</sup> yr	<b>Topics in Global Veterinary Medicine</b> Renberg (offered 2006 & 2007)-will be offered every other year., 2007, 2009, etc.  Offered 2009	(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	4 <sup>th</sup> yr	<b>Supplemental Food Animal Local Practice</b> Jones, Laffin	(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.	Laffin
CS 763 /C	2/G	2 week rotations  2A, 2C, 3A, 4B, 5C, 6A, 7A, 8A, 8C and 9A	4 <sup>th</sup> yr	<b>Laboratory Animal Medicine</b> 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	3 <sup>rd</sup> yr	<b>Beef Cattle Breeding Evaluation</b>	(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.	Laffin

CS 766 /O	1/CR	All	1st, 2 <sup>nd</sup> and 3rd yr	<b>Food Animal (Mixed) Practice Mentorship</b>	(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 4 <sup>th</sup> year.	Elmore/Rush
CS 767 /O	1/CR	All	1st, 2 <sup>nd</sup> and 3rd yr	<b>Small Animal Practice Mentorship</b>	(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 4 <sup>th</sup> year.	Elmore/Rush
CS 768 /O	1/CR	All	1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> year	<b>Non-Traditional Practice Mentorship</b>	(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 4 <sup>th</sup> year.	Elmore/Rush
CS 769 /D	2/G	Summer and Fall  Offered 2A and 4C	4 <sup>th</sup> yr	<b>Advanced Feedlot Production Management</b> 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	Summer & Spring  Offered 1C and 8B	4 <sup>th</sup> yr	<b>Advanced Cow-Calf Production Management</b> 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 772 /C	2/G	All 2 week rotations	4 <sup>th</sup> yr	<b>Equine Field Service</b> C. Blevins	(2) I, II, S. This course will offer general exposure to equine field service. 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 2010	3 <sup>rd</sup> Yr	<b>Introduction to Veterinary Phytotherapy</b> 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	4 <sup>th</sup> Yr	<b>Advanced Rural Food Animal Business Management</b>	(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	1-2/CR	All	4 <sup>th</sup> Yr	<b>Primary Care Externship</b>	(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	Rush

					standing in the College of Veterinary Medicine	
CS 777	1/CR	Fall and Spring	1 <sup>st</sup> , 2 <sup>nd</sup> or 3 <sup>rd</sup> yr	<b>Practicing Veterinary Medicine in a Multicultural Society</b> 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 and Spring	1 <sup>st</sup> , 2 <sup>nd</sup> or 3 <sup>rd</sup> yr	<b>The Basics of Bovine Theriogenology</b> 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

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