

<b>2026 Curriculum</b>						
<b>Curriculum Year</b>	<b>Curriculum Position</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hour (lecture/lab)</b>	<b>Predominant instruction</b>	<b>Course Description</b>
<b>Year 1 Core</b>						
Year 1	Semester 1 (Fall)	VAP805	Cell Physiology	3	Didactic	Functions of the animal body are described with a primary focus at the cellular and molecular level with correlations to clinical topics. Course content builds on knowledge of chemistry, biochemistry, physics and biology. Basic physiological and pathophysiological mechanisms are examined in the context of the cell environment, intermediary metabolism and cell signaling.
Year 1	Semester 1 (Fall)	VAP806	Gross Anatomy I	6	Didactic and laboratory	This course provides the principles of veterinary gross anatomy of the dog. Dissection of the embalmed dog is utilized to provide an understanding of the anatomic basis of the common surgical procedures. Introductory radiological concepts are included throughout the course to assist in the understanding of normal structural anatomy. The class format will be a combination of lectures and laboratory sessions.
Year 1	Semester 1 (Fall)	VAP807	Systems I	6	Didactic and laboratory	Microstructure and function of the cardiovascular, endocrine, respiratory, and renal systems of domestic animals with emphasis on physiologic control mechanisms, interrelationships of body systems, and criteria for evaluating animal health.
Year 1	Semester 1 (Fall)	VAP808	Intro to Research	1	Didactic	This course is intended to provide first-year students an opportunity to experience the depth of veterinary biomedical research required to advance the practice of veterinary medicine and advance the field of medicine in general. Additionally, students will learn the tools required to search relevant topic to their career paths within the medical literature.
Year 1	Semester 1 (Fall)	VAP835	Animal Welfare	1	Didactic	This course will describe the veterinarian's role in protecting the health and welfare of animals. Students will learn how to assess an animal's welfare in a variety of settings using science-based methods and reasoning. The history, evolution, basic principles, and application of animal welfare science for multiple species will be discussed.
Year 1	Semester 1 (Fall)	VCS809	Clinical Skills	1	Laboratory	The course will be taught during the fall semester as a required introductory level course for first year veterinary students. This is the first in a series of foundational courses designed to introduce students to key clinical skills, including communication and critical thinking, that they will encounter in a clinical setting and to provide students with a problem-based approach to learning.
Year 1	Semester 1 (Fall)	VDMP800	Career Development	0	Didactic	Introduction to career opportunities in veterinary medicine.
Year 1	Semester 2 (Spring)	VAP816	Gross Anatomy II	5	Didactic and laboratory	Gross dissection of the horse and ruminant with comparative aspects of the pig, laboratory animals, and the chicken.
Year 1	Semester 2 (Spring)	VAP817	Systems II	4	Didactic and laboratory	Microstructure and function of the reproductive and digestive systems of domestic animals with emphasis on physiologic control mechanisms, interrelationships of body systems, and criteria for evaluating animal health.
Year 1	Semester 2 (Spring)	VCS816	Clinical Skills II	1	Laboratory	The primary objective of the course is to provide students with an opportunity to learn normal animal behavior for the most commonly evaluated large animal species in clinical practice (the horse and the cow); to safely handle and restrain them; and to practice basic physical examination skills. A secondary objective of the course is to introduce students to the basic principles of biosecurity, sterile technique, venipuncture, and intravenous catheterization. In addition, students will build onto first-semester instruction in clinical communication, written documentation within the medical record, and introductory surgical skills.
Year 1	Semester 2 (Spring)	VDMP811	Clinical Pathology 1	2	Didactic and laboratory	Principles, application and interpretation of clinical laboratory procedures in clinical cases.
Year 1	Semester 2 (Spring)	VDMP814	Bacteriology	3	Didactic	Veterinary Bacteriology and Mycology, is designed to provide graduate students in pathobiology or related field with basic knowledge of bacteria, fungi and the diseases that they cause primarily in animals.
Year 1	Semester 2 (Spring)	VDMP817	Immunology	3	Didactic	Innate and adaptive defense mechanisms in domestic animals. Topics include vaccinology, immunopathology, autoimmunity, immunodeficiency, and immunomodulation.
Year 1	Semester 2 (Spring)	VDMP818	Epidemiology	2	Didactic	Introduction to the principles and methods of veterinary epidemiology: emphasizing how diseases affect populations (and associated implications for individuals), and application to disease diagnosis, treatment, prevention, and control.

Year 2	Semester 3 (Fall)	VAP844	Pharmacology I	4	Didactic	The objectives of the course are to: gain an understanding of foundational aspects of pharmacology; understand the interactions of chemical compounds and living systems (pharmacokinetics and pharmacodynamics); learn to categorize drugs based upon mechanisms of action; learn the names (generic and proprietary as indicated) of selected common drugs from various drug groups, and their actions and interactions in animals; learn how to evaluate data and drug product information distributed to veterinarians.
Year 2	Semester 3 (Fall)	VCS839	Clinical Skills III	1	Laboratory	A continuation of Veterinary Clinical and Professional Skills II. Introduces how to perform common diagnostic tests in clinical practice and interpret them. Builds upon basic palpation skills to practice isolating specific tissues and organs. Applies surgical principles to the practice of advanced suture patterns.
Year 2	Semester 3 (Fall)	VDMP831	Virology	3	Didactic	Morphology, biology, and classification of viruses and their relation to the causes of disease. Veterinary Virology is a 3 credit lecture course that is designed for veterinary students in the second year of the professional curriculum.
Year 2	Semester 3 (Fall)	VDMP832	General Pathology	4	Didactic and Laboratory	Etiology, pathogenesis, lesions, and termination of processes of disease, including inflammation, necrosis, regeneration, oncology, and disturbances of metabolism, circulation, and growth.
Year 2	Semester 3 (Fall)	VDMP834	Parasitology	4	Didactic and Laboratory	Study of helminth, arthropod, and protozoan parasites of companion and food animals. Emphases are on diagnosis, clinical signs, lesions, treatment, control, epidemiology, and public health aspects of parasitic disease.
Year 2	Semester 3 (Fall)	VDMP835	Clinical Pathology 2	3	Didactic and Laboratory	Principles, application and interpretation of clinical laboratory procedures in clinical cases.
Year 2	Semester 4 (Spring)	VAP846	Pharmacology II	2	Didactic	The basic principles of pharmacology, the relationship of drug actions and interactions on physiological principles and pathophysiological conditions. Pharmacokinetics, pharmacodynamics, and a systems-based approach to drug classes will be emphasized. The concepts of Pharmacology I (AP770) are applied in Pharmacology II.
Year 2	Semester 4 (Spring)	VCS845	Radiology	3	Didactic and Laboratory	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.
Year 2	Semester 4 (Spring)	VCS843	Introduction to Veterinary Surgery	2	Didactic	The purpose of VCS843 Introduction to Veterinary Surgery is to introduce the second year veterinary student to small animal surgical principles, specific small animal surgical conditions, their clinical signs, appropriate diagnostic evaluation, surgical treatment, pre- and post-operative care, and complications. Clinical application and reasoning will also be a focus. This course will establish a foundation of knowledge that students will build on in VCS863 Veterinary Surgery I in the fall semester of the third year.
Year 2	Semester 4 (Spring)	VCS844	Medicine 1	4	Didactic	Consideration of medical and pathophysiologic aspects of diseases affecting the urinary, endocrine, integumentary, respiratory, hemic, and neuromuscular systems.
Year 2	Semester 4 (Spring)	VCS846	Clinical Skills IV	1	Laboratory	A continuation of Veterinary Clinical and Professional Skills III. Introduces advanced organ-specific examination techniques including otoscopy and ophthalmoscopy. Expands the concepts of diagnostic testing and diagnostic test interpretation. Prepares students for surgical anesthesia and anesthetic monitoring through the use of non-animal teaching models.
Year 2	Semester 4 (Spring)	VDMP841	Veterinary Public Health	2	Didactic	The linkages between human health and animal health and production. Topics include zoonotic disease, emerging and exotic animal diseases, disaster preparedness, regulatory and community health issues focusing on the role of the veterinarian in all.
Year 2	Semester 4 (Spring)	VDMP857	Systemic Pathology	5	Didactic and Laboratory	Pathology of the organ systems of domestic animals including gross and microscopic study of lesions.
<b>Year 3 Core</b>						
Year 3	Semester 5 (Fall)	VCS861	Food Animal Medicine	4	Didactic	A study of the etiology, clinical signs, diagnosis, treatment, and control of diseases which affect cattle, swine, and sheep.
Year 3	Semester 5 (Fall)	VCS862	Theriogenology	3	Didactic	Consideration of prevention, diagnosis, and treatment of disease, and maintenance of health and productivity of the genital tract of domestic species.
Year 3	Semester 5 (Fall)	VCS863	Veterinary Surgery 1	3	Didactic	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.

Year 3	Semester 5 (Fall)	VCS864	Applied Clinical Skills & Surgery Laboratory	3	Laboratory	The VCS864 Applied Clinical Skills and Surgical Laboratories course is a hands-on live animal laboratory course with multiple objectives. This course teaches basic clinical skills including small animal handling, physical examination, sample collection, diagnostic procedures, patient assessment and management, medical records, and clinical communication. Additionally, the course will teach basics of small animal veterinary anesthesia, surgical techniques, and live animal patient management. Skills taught in this course will build on introductory skills learned in 1st and 2nd year clinical skills courses. The student will progress to performing general anesthesia, surgery (spays and neuters), and perioperative care for humane shelter animals. The skills taught in this course will be used as a framework for students to continue building on during their senior year as they learn to function as effective veterinarians.
Year 3	Semester 5 (Fall)	VCS865	Exotic Pet Medicine	2	Didactic	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).
Year 3	Semester 5 (Fall)	VCS867	Medicine II	4	Didactic	Consideration of the medical and pathophysiological aspects of diseases affecting the gastrointestinal, cardiovascular, and ophthalmic systems, oncology, and dentistry.
Year 3	Semester 6 (Spring)	VAP871	Toxicology	3	Didactic	The primary goal of the course is to assist students in becoming effective, professional veterinarians with knowledge of current veterinary toxicology. All species will be covered in this course. Veterinary toxicology includes the study of the effects that poisons have on animal health and well-being, including epidemiology, pathophysiology, diagnosis and treatment of poisoning. We will study core toxicology concepts and focus on problems typically encountered in veterinary practices. After completion of this course, students should be able to comprehend and interpret information relating to veterinary toxicology and should have the knowledge and skills needed to perform functions expected of a general practitioner when diagnosing and treating animal poisoning.
Year 3	Semester 6 (Spring)	VCS874	Ethics/Jurisprudence	1	Didactic	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.
Year 3	Semester 6 (Spring)	VCS876	Applied Large Animal Clinical Skills	1	Didactic and Laboratory	Demonstration, instruction and experience in physical examination and diagnostic skills necessary for routine veterinary practice.
Year 3	Semester 6 (Spring)	VCS877	Clinical Nutrition	2	Didactic	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.
Year 3	Semester 6 (Spring)	VCS878	Veterinary Surgery II	3	Didactic	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.
Year 3	Semester 6 (Spring)	VCS879	Veterinary Surgery II Laboratory	1	Laboratory	A continuation of Veterinary Surgery I Lab. 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.
Year 3	Semester 6 (Spring)	VCS880	Veterinary Business and Professional Development	1	Didactic	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.
Year 3	Semester 6 (Spring)	VCS881	Clinical Pharmacology	2	Didactic	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.
Year 3	Semester 6 (Spring)	VCS882	Equine Medicine	3	Didactic	A study of the etiology, clinical signs, diagnosis, treatment, and control of common diseases which affect horses.

<b>Preclinical Electives</b>						
Year 1-3	Fall	VAP888 C	History of Veterinary Medicine	1	Didactic	An introduction to the history of veterinary medicine at Kansas State University, in Kansas City, the Midwest, in North America and in the world. This course will study the development of the first institutions of veterinary medicine, the history of the USVMA and the AVMA, the contributions of the early pioneers in veterinary medicine, and the history of some of the diseases of domestic animals.
Year 1	Fall	VAP888 D	Stem Cell and Comparative Biomedicine	1	Didactic	A wide range of topics related to stem cells and regenerative biology. Topics include a history of the field, sources of stem cells, preclinical and clinical translation of stem cells as a regenerative therapy, tissue engineering, and the political and ethical issues surrounding the stem cell debate. The student learning objectives (SLOs) of this course: 1) List the properties that define a stem cell; 2) List different stem cell types used for scientific research; 3) Compare and contrast tissue-specific stem cell types (e.g., blood, skin), and the basic mechanisms that regulate them; 4) List some preclinical and clinical use(s) of stem cells; 5) Compare and contrast vertebrate animal models of regeneration research; 6) Discuss the ethical / political issues related to stem cell research.
Year 1-2	Spring	VAP891 A	Special Interest Anatomy	1	Laboratory	A two-hour dissection lab which will allow the student to explore more deeply the gross anatomy of a particular species of interest or across species a particular region of the body of interest. Dissection of specimens other than canine will require the student to make prior arrangements with the instructor to schedule a semester when materials and specimens are available.
Year 1-3	Spring	VAP893	Introduction to Nanomedicine	1	Didactic	This course is a brief introduction to nanomaterials and nanomedicine with a focus on clinical applications of nanotechnology. The course presents basic principles of nanotechnology; current clinical applications of nanomedicine; future horizons in nanomedicine.
Year 1-2	Spring	VAP894	Comparative Embryology	1	Didactic	An overview of development anatomy as it relates to clinically important developmental defects and/or normal structure and function of common domestic animals.
Year 2-3	Spring	VAP897	Animal Welfare (Problems in Animal Welfare)	1	Didactic	This course will expand on the role of veterinarians in the field of animal welfare. Students will be introduced to the major philosophical positions of animal use. The evolution of animal welfare science will be discussed and students will learn how to assess the welfare of companion, laboratory, zoo and food animals. Contemporary issues in animal welfare will also be explored.
Year 1-2	Spring	VCS820	Topics in Global Veterinary Medicine	1	Didactic	(1) II. An overview of the role of veterinarians around the world. Topics include international uses and attitudes about animals, problems the world faces pertaining to livestock production, and social tensions.
Year 1-2	Spring	VCS821	International Vet Study Tour	2	Lecture/Field Experience	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.
Year 1-3	Fall	VCS822	Intro to Sustainable Beef Systems	1	Didactic	The goal of this course is to provide veterinary students with an understanding of sustainability in beef systems. The course will focus on beef cattle production practices, principles of sustainable food systems, systems thinking, and impacts of food choices. It will include topics on US Roundtable for Sustainable Beef selfassessment guides, impact of management practices on sustainability, impact of beef industry on the economy, and beef's role in human dietary. It will include guest lectures and field trips for students to learn from those in the field. A large emphasis will be placed on systems thinking (i.e., how one change affects other aspects of the system).
Year 1-3	Fall	VCS832	Antimicrobial Resistance in Bacteria: A One Health Perspective	1	Didactic	Antimicrobial Resistance (AMR) is a significant global health threat of the 21st century. This course addresses the concept of One Health which integrates the knowledge of the biological elements necessary for the evolution of antimicrobial resistance (AMR) in bacteria and other factors (animals, humans, environments, socioeconomic features, and behavioral changes) involved in its emergence and dissemination.
Year 1-2	Spring	VCS890 B	Community Outreach Fundamentals	1 or 2	Didactic	Course will cover the fundamentals of utilizing the practice of veterinary medicine to reach clientele historically excluded from the Veterinary-Client-Patient-Relationship (VCPR). Topics will include barriers for client receiving veterinary services, utilizing a Spectrum-of-Care (SoC) approach toward the practice of veterinary medicine, veterinary medicine as a member of an interdisciplinary One Health team, the emerging profession of Veterinary Social Work and how best to collaborate with this profession and the benefits of utilizing a Person-in-Environment (PIE) approach.



Year 3	Spring	VCS891 A	Topics in Veterinary Oncology	1	Didactic	This course will acquaint students with an expanded spectrum of topics relevant to contemporary veterinary oncology. The course structure will be a combination of didactic lectures and clinical, casebased discussions corresponding to the lecture topic. Specific topics to be examined included clinical approaches to some of the less common veterinary cancers, as well as paraneoplastic conditions and innovative diagnostics and therapeutics available today. The topics are intended to expand the exposure of students to veterinary oncology and to be of relevance to those students considering careers in general veterinary practice, emergency medicine, internal medicine, surgery and clinical pathology. The objectives of the course are to develop the students' problem-based and holistic approach to clinical case management, as well as to cultivate a more comprehensive understanding of, and ability to clinically apply, specific oncology concepts.
Year 3	Spring	VCS891 B	Topics in Companion Animal Ophthalmology	1	Didactic	Students will be instructed in the diagnosis and management of common ophthalmic diseases of companion animals through a casebased, interactive format. Covered species include, but are not limited to, dogs, cats, horses, and exotic pets.
Year 2-3	Fall	VCS891 C	Topics in Applied Small Animal Behavior	1	Didactic	Introduction to the commonly encountered canine and feline behavior topics in veterinary medicine. Students will learn how to address these behavioral concerns through behavior modification, desensitization, counter conditioning, and psychopharmacology. An additional goal of the course is to discuss practices that reduce fear in these patients during visits to their veterinarian.
Year 3	Fall	VCS891 D	Topics of Equine Podiatry	1	Didactic & Laboratory	This course will teach normal foot anatomy, abnormal foot anatomy, and a working knowledge of the techniques used to correct abnormal foot anatomy. Anatomy and pathologic conditions will be taught by a combination of lectures, autotutorials, and live animal instruction. The student will also learn to safely work on horses feet, properly trim horses' feet, use hoof knives by laboratory sessions devoted to developing these manual skills. The hands on instruction will be provided by veterinarians, experienced farriers, and Veterinarians that specialize in podiatry. The student will also become conversant in commonly accepted terminology to be able effectively communicate with farriers. Farrier work is physically demanding. Those wishing to enroll should possess the strength and stamina to hold up and work on horse feet for laboratories lasting up to 4 hours.
Year 1-2	Fall	VCS891 E	Topics in Shelter Basics: Medicine & Management	1	Didactic	This course will acquaint students with the problems associated with overpopulation and the role that veterinarians can play in improving the care of shelter animals. Topics will include population management, infectious disease recognition and control, common QHVS techniques, behavioral evaluation and modification, ASV standards of care and much more.
Year 2-3	Spring	VCS891 F	Basic Emergency Med/Critical Care	1	Didactic	Students will learn evaluation and triage of the critical/trauma patient, principles of fluid therapy, Acid-Base analysis, oxygenation and oxygen therapy, principles of transfusion therapy, cardiopulmonary resuscitation. The laboratory will be a 4-hour shift in the Veterinary Health Center Intensive Care unit where the students will be exposed to basic skills and protocols in the ICU.
Year 3	Spring	VCS891 G&H	Topics in Bovine Palpation Techniques & Reproduction Evaluation	1	Didactic & Laboratory	In 7 two-hour sessions, students will be instructed through weekly lecture and hands-on labs covering bovine rectal palpation techniques as well as evaluation and manipulation of the female reproductive tract. The labs will utilize teaching models, harvested reproductive tracts, and when available live animals. Objectives of the course will be to provide students with the basic knowledge in reproductive tract scoring, identifying and manipulating ovarian structures, palpating open reproductive tracts, pregnancy diagnosis, fetal aging, obstetrics, and utilization of ultrasound.
Year 3	Spring	VCS891 J	Topics in Advanced Zoological/Wildlife Medicine	1	Didactic & Laboratory	Lectures on the diseases/pathology, medicine, immobilization procedures, and captive management of a variety of zoo/wild animals. Includes 2 Saturday morning labs (2-3 hr each) and a 1-day Saturday field trip to the Rolling Hills Zoo (Salina) to participate in veterinary procedures and rounds. Individual mentoring of students will also be offered.
Year 2-3	Summer	VCS891 K	Topics in IVM-Shelter Systems	3	Didactic	Understanding of the critical role played by veterinarians in protecting the health and welfare of sheltered dogs and cats, and develop population wellness and management practices that optimize their wellbeing and best outcomes. This course is divided into nine modules and each module includes interactive activities, readings, recordings, group discussions and assignments to deepen student understanding as well as assess achievement. By the end of this course students will be able to use the Association for Shelter Veterinarians Guidelines as a guide for the practice of veterinary medicine in a shelter environment, develop population wellness and management practices, respond to common health threats, animal welfare issues and animal abuse, understand recent trends, issues and epidemiology related to animal homelessness, apply key concepts crucial to the practice of shelter medicine (e.g., QHVS, One Health, Five Freedoms), use communication and leadership skills in interactions with shelter personnel and peers.
Year 1-2	Spring	VCS891 L	Issues in Rural Practice	1	Didactic	The goal of this course is to provide veterinary students information on current issues impacting success in rural veterinary practice. Emphasis will be placed on including topics relevant to rural veterinary practices and can include topics such as veterinary business management, rural community development, changes in agricultural trends, and business development. This course will include a variety of topics affecting rural veterinary practice and the format is a short didactic lecture each week followed by facilitated discussion with the students. Speakers will include KSU CVM faculty, KSU faculty from other departments, and experts from outside KSU. Each presentation will describe an issue impacting rural practice and be followed by a question/answer and discussion session among students and guest speaker.

Year 1-3	Fall, Spring & Summer	VCS892 C	Small Animal Preclinical Mentorship	1	Offsite Clinical Experience	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 expressed an interest in training and mentoring veterinary students.
Year 1-3	Fall, Spring & Summer	VCS892 D	Non-Traditional Preclinical Mentorship	1	Offsite Clinical Experience	Structured one week (45contact 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 expressed an interest in training and mentoring veterinary students.
Year 1-3	Fall & Spring	VCS892 E	Practicing Veterinary Medicine in a Multicultural Society	1	Didactic	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.
Year 1-3	Fall, Spring & Summer	VCS892 F	Equine Preclinical Mentorship	1	Offsite Clinical Experience	Structured one week (45 contact hrs) mentorship in a Equine practice designed to promote clinical skills training in a private practice setting with practitioners who have expressed an interest in training and mentoring veterinary students.
Year 1-2	Spring	VCS892 G	Disaster Response - ICS Deployment Certification	1	Didactic	This course will be a combination of lecture classes and online certification modules. The in-person lecture classes will introduce students to disaster response as it relates to animals and the role of veterinarians. Successful completion of the online modules will result in students being certified for disaster response deployment.
Year 1-3	Fall, Spring & Summer	VCS892 J	Exotics/Zoo Preclinical Mentorship	1	Offsite Clinical Experience	Structured one week (45 contact hrs) mentorship in an exotics/zoological practice designed to promote clinical skills training in a private practice setting with practitioners who have expressed an interest in training and mentoring veterinary students.
Year 1-3	Fall, Spring & Summer	VCS892 K	Shelter Preclinical Mentorship	1	Offsite Clinical Experience	Structured one week (45 contact hrs) mentorship in a shelter medicine practice designed to promote clinical skills training in a private practice setting with practitioners who have expressed an interest in training and mentoring veterinary students.
Year 1-3	Fall, Spring & Summer	VCS892 L	Sustainability Preclinical Mentorship	1	Offsite Clinical Experience	Structured one week (45 contact hrs) mentorship in an Veterinary practice designed to engage the student in sustainability focused areas in the veterinary community with practitioners who have expressed an interest in training and mentoring veterinary students. Designed to promote mentorship while gaining exposure to Veterinary Sustainability.
Year 3	Fall	VCS892H	Introduction to Small Animal Dentistry	1	Didactic	Students will be instructed through weekly lectures. Lecture topics will include anatomy, periodontal disease, imaging, regional nerve blocks, neoplasia, endodontics, extractions, inflammatory disease, juvenile disease, diagnostics and treatments.
Year 1-2	Spring	VCS892N	Concepts in Sustainable Small Animal Practice	1	Didactic	Course will cover principles of pragmatic sustainable veterinary practice in a small animal clinic/hospital. Students will be introduced to policy pertaining to environmental sustainability, key areas within a healthcare facility (resource allocation, practice habits, and waste generation/management) relevant to sustainability. Additionally, students will be introduced to Environmental Management Systems (EMS) which cover how facility audits should be covered and includes performing pollution prevention opportunity assessments.
Year 1-3	Fall	VDMP816	Trade and Agricultural Health	2	Didactic	Course considers the multilateral trading system as it relates to food safety, food security, animal health, plant health, and international cooperation. The course content will be of value to students interested in food safety and security, epidemiology, public health, agriculture, food science, security studies, political science, agricultural economics, veterinary medicine, and international relations.
Year 1-2	Spring	VDMP888 B	Globalization & the Food Trade	1	Didactic	Course focuses on issues and topics including, but not limited to, disputes in the international agricultural and food trade, new concepts such as Food and Agriculture Security, and the food-related challenges faced by wealthy as well as economically poor societies.
Year 1-3	Spring	VDMP891 A	International Animal & Zoonotic Disease	1	Didactic	Course will provide students with an international perspective of transboundary animal diseases (TADs) and zoonotic diseases using an outbreak investigation and control measures approach including the global nature or interface of infectious transboundary animal diseases, zoonoses and One Health; international frameworks for mitigating animal and human health threats; emergency response; risk assessment; disease reporting systems and outbreak investigations.
Year 2-3	Fall	VDMP891 C	Backyard Poultry Disease	1	Didactic	Course will provide DVM students with practical knowledge of backyard poultry husbandry, diseases, biosecurity, care and management of domestic and exotic birds. Graduate veterinarians will have practical knowledge to be able to promote avian health relative to backyard situations, including prevention and control of

Year 2-3	Fall	VDMP891 C	Backyard Poultry Disease	1	Didactic	Course will provide DVM students with practical knowledge of backyard poultry husbandry, diseases, biosecurity, care and management of domestic and exotic birds. Graduate veterinarians will have practical knowledge to be able to promote avian health relative to backyard situations, including prevention and control of new and avian associated zoonotic disease outbreaks. Biosecurity guidelines and overall management will be discussed during presentations and experiential learning activities.
Year 3	Spring	VDMP891 D	Laboratory Animal Science	2	Didactic	Management and health of common species of laboratory animals.
Year 2-3	Spring	VDMP891 E	Ecotoxicology	1	Didactic	Course is aimed at DVM students with interests in ecosystem health, and the impact of altered ecosystems on animals. The course will include an overview of ecosystems, risk assessment, ecosystem services, and the interface between agents of disease (particularly toxins and infectious agents), animals, and humans ("One Pathology"). The course will examine natural events that result in altered ecosystems as well as alterations induced by human activity, and the impact of these alterations on domestic and wild animals.
Year 3	Summer	VDMP891 F	Top/Herd Disease Inv. Technique	2	Didactic	Course is designed to provide the knowledge necessary, through a combination of lecture, discussion, and practical experience, for new graduate veterinarians to practice herd disease-outbreak investigation in cow-calf, feedlot, and dairy practices. This course will meet over a two week period, consecutive days, during the latter part of summer.
<b>Year 4 Core Rotations</b>						
Year 4	All semesters	VCS900	Vet. Diag. Imaging I	3	Laboratory	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.
Year 4	All semesters	VCS904	Clinical Anesthesiology	3	Laboratory	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.
Year 4	All semesters	VCS906	Ophthalmology	2	Laboratory	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.
Year 4	All semesters	VCS910	Livestock Local Practice	2	Laboratory	A study of individual livestock medicine and surgery.
Year 4	All semesters	VCS912	Livestock Med. & Surg.	2	Laboratory	Students will work under faculty supervision in an in-house setting.
Year 4	All semesters	VCS920	Equine Med.	2	Laboratory	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.
Year 4	All semesters	VCS922	Equine Surgery	2	Laboratory	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.
Year 4	All semesters	VCS924	Equine Field Service	2	Laboratory	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.
Year 4	All semesters	VCS930	SA Internal Med.	3	Laboratory	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.
Year 4	All semesters	VCS932	SA General Med.	3	Laboratory	The study of preventative medicine, general practice medicine, and specialty medicine.
Year 4	All semesters	VCS934	SA Soft Tissue Surgery	3	Laboratory	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.
Year 4	All semesters	VCS936	SA Orthopedic Surgery	3	Laboratory	Course is designed to train senior or elective veterinary students in diagnosis/treatment of small animal orthopedic surgical diseases through the Orthopedic Service of the Veterinary Medical Teaching Hospital.

Year 4	All semesters	VCS938	Dentistry	1	Laboratory	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.
Year 4	All semesters	VCS940	SA Emergency	2	Laboratory	Enhanced training in the management of small animal patients presented to the emergency service. Evaluation, management, and monitoring of small animal patients in the intensive care unit.
Year 4	All semesters	VDMP902	Diagnostic Medicine	3	Laboratory	Practical experience in necropsy procedures and laboratory findings.
<b>Year 4 Elective Rotations</b>	<b>(11 credits required)</b>					
Year 4	All semesters	VCS901	Clinical Externship/ Programmed Study	0-6	Laboratory	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.
Year 4	All semesters	VCS903	Laboratory Animal Medicine	2	Laboratory	The study of laboratory animal medicine or comparative medicine to include colony health monitoring, preventive medicine, surgery, investigator support, and regulatory oversight.
Year 4	All semesters	VCS905	Exotic Animal, Wildlife, and Zoo Animal Medicine	3	Laboratory	Study of exotic, wildlife, and zoo animal medicine through participation in the clinical service in the Veterinary Health Center. Problem solving, differential diagnosis, diagnostic procedures, and medical and surgical therapy of non-domestic animals will be emphasized. Annual preventative medicine, medical procedures, and surgical procedures are also routinely performed at the City of Manhattan Sunset Zoo.
Year 4	All semesters	VCS907	Supplemental Exotic Animal, Wildlife, and Zoo Animal Medicine	3	Laboratory	Additional training in the 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.
Year 4	Summer,	VCS909	Urgent Care	1	Laboratory	Additional training and skills in triaging and managing wound fractures, trauma, cardiovascular shock as well as patient in respiratory distress. This would be conducted through lecture/discussion and case base learning.
Year 4	Summer,	VCS913	Advanced Feedlot Production Management	2	Laboratory	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.
Year 4	Spring,	VCS915	Advanced Cow-Calf Production Management	2	Didactic	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.
Year 4	Spring, Fall	VCS917	Advanced Rural Food Animal Business	2	Didactic	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.
Year 4	Fall, Spring	VCS919	Food Animal Bull Reproduction	2	Laboratory	Students will get hands-on experience and become competent performing a complete Breeding Soundness Exam. Other reproductive topics will be covered.
Year 4	Offered only 1A, 1B, 1C, 8C, 9A and 9B	VCS921	Clinical Equine Theriogenology	2	Laboratory	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.
Year 4	Fall	VCS923	Advanced Equine Studies	4	Laboratory	Students will have opportunities for routine and advanced clinical skills training and case management. Course discussions and 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.
Year 4	All semesters	VCS925	Supplemental Equine Studies	2	Laboratory	An opportunity to pursue additional equine studies (medicine, surgery, etc.) in depth and assume substantial responsibility for care of hospitalized cases. Or students have the option to conduct research and present a seminar on a medicine or surgical subspecialty and pursue a special problem.
Year 4	All semesters	VCS931	Clinical Oncology	2	Laboratory	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.



Year 4	All 3 week except 2D, 4D, 6E, 9A	VCS933	Dermatology / Medicine	3	Laboratory	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.
Year 4	All 2 week rotations except 1C	VCS935	Comparative Cardiology	2	Laboratory	Designed to expose students to the cardiovascular system of domestic animals, emphasizing clinical management and understanding of common congenital and acquired cardiac diseases.
Year 4	All semesters	VCS937	Shelter Medicine	2	Laboratory	The rotation will be a combination of in-class and laboratory exercises in Manhattan, and hands-on experience at regional shelters. Topics include population medicine, infectious disease recognition and control, surgical sterilization, behavioral testing, and legal issues common to shelter settings.
Year 4	All semesters	VCS939	Supplemental Clinical Small Animal Soft Tissue Surgery	3	Laboratory	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
Year 4	All semesters	VCS941	Supplemental Small Animal Internal Medicine	3	Laboratory	Additional topics in internal medicine. The student may be required to participate in a special problem with a written or oral report.
Year 4	Fall, Spring	VCS942	Advanced Surgical Experience	2	Laboratory	Designed to increase exposure to soft tissue surgical theories and techniques by providing both hands on surgical experience on cadavers and literature review skills.
Year 4	All semesters	VCS943	Supplemental Clinical Small Animal Orthopedics	3	Laboratory	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.
Year 4	All semesters	VCS944	Supplemental Small Animal Emergency	2	Laboratory	An opportunity to pursue additional training in the management of small animal patients presented to the emergency services. Evaluation, management, and monitoring of small animal patients in the intensive care unit.
Year 4	Summer,	VCS945	Supplementary Dentistry for Small Animals	1	Laboratory	A one week course where students will be instructed through lecture, cadaver labs, and live animal care. Topics covered will include dental evaluation techniques, instrumentation, dental radiography, tooth extraction techniques and regional anesthesia. Objectives of the course will be to provide 4th year students with additional training of basic dentistry knowledge and experience performing oral exams, dental probing, scaling, polishing, radiographs and tooth extractions.
Year 4	Fall, Summer, Spring	VCS946	Shelter Operations Consultation	1	Laboratory	This rotation will expose veterinary students to formal shelter consultation procedures. Students will learn how to take a critical look at the health of animal shelters to identify what is being done well and what needs to be improved. Students will also learn how to formulate recommendations in a way that does not overwhelm the administration of the shelters and can easily be implemented in a stepwise fashion.
Year 4	Fall	VCS947	Advanced Bovine Palpation	2	Laboratory	Provide numerous opportunities for the student to learn how to diagnose pregnancy using palpation techniques.
Year 4	All semesters	VCS948	Supplemental Small Animal General	3	Laboratory	Additional training in preventative medicine, general practice medicine, and specialty medicine.
Year 4	Summer,	VCS949	Shelter Medicine – Community Outreach Crauer, Dressler	1	Laboratory	Designed to give students an opportunity to build practice skills in a community outreach setting. This one week elective course will introduce students to access to care issues and prepare them to deliver veterinary services in socioeconomically diverse settings. The rotation will consist of in-class lessons and discussion followed by outreach clinics. Clinics will primarily focus on wellness exams, preventative medicine and treatment of routine medical conditions.
Year 4	All semesters	VCS950	Problems in Medicine or Surgery	1	Didactic and Laboratory	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.

<b>Pre-2026 Curriculum</b>						
<b>Curriculum Year</b>	<b>Curriculum Position</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hour (lecture/lab)</b>	<b>Predominant instruction</b>	<b>Course Description</b>
<b>Year 1 Core</b>						
Year 1	Semester 1 (Fall)	VAP804	Veterinary Physiology I	5	Didactic and laboratory	Function of the animal body at the cellular level, including nerve and muscle function. Basic pathophysiological mechanisms and intermediary metabolism will be emphasized and correlated with clinical topics.
Year 1	Semester 1 (Fall)	VAP806	Gross Anatomy I	6	Didactic and laboratory	This course provides the principles of veterinary gross anatomy of the dog. Dissection of the embalmed dog is utilized to provide an understanding of the anatomic basis of the common surgical procedures. Introductory radiological concepts are included throughout the course to assist in the understanding of normal structural anatomy. The class format will be a combination of lectures and laboratory sessions.
Year 1	Semester 1 (Fall)	VAP808	Intro to Research	1	Didactic	This course is intended to provide first-year students an opportunity to experience the depth of veterinary/biomedical research required to advance the practice of veterinary medicine and advance the field of medicine in general. Additionally, students will learn the tools required to search relevant topic to their career paths within the medical literature.
Year 1	Semester 1 (Fall)	VAP810	Microanatomy	5	Didactic	Origin, development, and microscopic structure and appearance of the cells and tissues of the animal body.
Year 1	Semester 1 (Fall)	VCS809	Clinical Skills	1	Laboratory	The course will be taught during the fall semester as a required introductory level course for first year veterinary students. This is the first in a series of foundational courses designed to introduce students to key clinical skills, including communication and critical thinking, that they will encounter in a clinical setting and to provide students with a problem-based approach to learning.
Year 1	Semester 1 (Fall)	VDMP800	Career Development	0	Didactic	Introduction to career opportunities in veterinary medicine.
Year 1	Semester 2 (Spring)	VAP816	Gross Anatomy II	5	Didactic and laboratory	Gross dissection of the horse and ruminant with comparative aspects of the pig, laboratory animals, and the chicken.
Year 1	Semester 2 (Spring)	VAP818	Physiology II	6	Didactic and laboratory	Function of the cardiovascular, endocrine, respiratory, renal, digestive, and reproductive systems of domestic animals with emphasis on physiologic control mechanisms, interrelationships of body systems, and criteria for evaluating animal health.
Year 1	Semester 2 (Spring)	VCS816	Clinical Skills II	1	Laboratory	The primary objective of the course is to provide students with an opportunity to learn normal animal behavior for the most commonly evaluated large animal species in clinical practice (the horse and the cow); to safely handle and restrain them; and to practice basic physical examination skills. A secondary objective of the course is to introduce students to the basic principles of biosecurity, sterile technique, venipuncture, and intravenous catheterization. In addition, students will build onto first-semester instruction in clinical communication, written documentation within the medical record, and introductory surgical skills.
Year 1	Semester 2 (Spring)	VDMP817	Immunology	3	Didactic	Innate and adaptive defense mechanisms in domestic animals. Topics include vaccinology, immunopathology, autoimmunity, immunodeficiency, and immunomodulation.
Year 1	Semester 2 (Spring)	VDMP818	Epidemiology	2	Didactic	Introduction to the principles and methods of veterinary epidemiology: emphasizing how diseases affect populations (and associated implications for individuals), and application to disease diagnosis, treatment, prevention, and control.
<b>Year 2 Core</b>						
Year 2	Semester 3 (Fall)	VAP844	Pharmacology I	4	Didactic	The objectives of the course are to: gain an understanding of foundational aspects of pharmacology; understand the interactions of chemical compounds and living systems (pharmacokinetics and pharmacodynamics); learn to categorize drugs based upon mechanisms of action; learn the names (generic and proprietary as indicated) of selected common drugs from various drug groups, and their actions and interactions in animals; learn how to evaluate data and drug product information distributed to veterinarians.
Year 2	Semester 3 (Fall)	VCS839	Clinical Skills III	1	Laboratory	A continuation of Veterinary Clinical and Professional Skills II. Introduces how to perform common diagnostic tests in clinical practice and interpret them. Builds upon basic palpation skills to practice isolating specific tissues and organs. Applies surgical principles to the practice of advanced suture patterns.
Year 2	Semester 3 (Fall)	VDMP814	Bacteriology	4	Didactic and Laboratory	Veterinary Bacteriology and Mycology, is designed to provide graduate students in pathobiology or related field with basic knowledge of bacteria, fungi and the diseases that they cause primarily in animals.
Year 2	Semester 3 (Fall)	VDMP832	General Pathology	4	Didactic and Laboratory	Etiology, pathogenesis, lesions, and termination of processes of disease, including inflammation, necrosis, regeneration, oncology, and disturbances of metabolism, circulation, and growth.
Year 2	Semester 3 (Fall)	VDMP834	Parasitology	4	Didactic and Laboratory	Study of helminth, arthropod, and protozoan parasites of companion and food animals. Emphases are on diagnosis, clinical signs, lesions, treatment, control, epidemiology, and public health aspects of parasitic disease.
Year 2	Semester 3 (Fall)	VDMP836	Integration III	1	Didactic	Vertical and horizontal integration among semester courses to improve student cognitive retention and understanding of course content. Structured-function relationships will be emphasized to facilitate student assimilation and provide clinical relevance to basic science content.
Year 2	Semester 4 (Spring)	VAP845	Toxicology	2	Didactic	The primary goal of the course is to assist students in becoming effective, professional veterinarians with knowledge of current veterinary toxicology. All species will be covered in this course. Veterinary toxicology includes the study of the effects that poisons have on animal health and well-being, including epidemiology, pathophysiology, diagnosis and treatment of poisoning. We will study core toxicology concepts and focus on problems typically encountered in veterinary practices. After completion of this course, students should be able to comprehend and interpret information relating to veterinary toxicology and should have the knowledge and skills needed to perform functions expected of a general practitioner when diagnosing and treating animal poisoning.
Year 2	Semester 4 (Spring)	VAP846	Pharmacology II	2	Didactic	The basic principles of pharmacology, the relationship of drug actions and interactions on physiological principles and pathophysiological conditions. Pharmacokinetics, pharmacodynamics, and a systems-based approach to drug classes will be emphasized. The concepts of Pharmacology I (AP770) are applied in Pharmacology II.
Year 2	Semester 4 (Spring)	VCS845	Radiology	3	Didactic and Laboratory	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.
Year 2	Semester 4 (Spring)	VCS846	Clinical Skills IV	1	Laboratory	A continuation of Veterinary Clinical and Professional Skills III. Introduces advanced organ-specific examination techniques including otoscopy and ophthalmoscopy. Expands the concepts of diagnostic testing and diagnostic test interpretation. Prepares students for surgical anesthesia and anesthetic monitoring through the use of non-animal teaching models.
Year 2	Semester 4 (Spring)	VDMP847	Integration IV	1	Didactic	The course activities will include interactive discussion sessions with pathologist, radiologist, clinical pathologist, and other veterinary specialists and will be aimed to integrate topics learned in courses taught during the first four semesters of the veterinary curriculum with special emphasis on the topics learned in the current (fourth) semester.
Year 2	Semester 4 (Spring)	VDMP848	Clinical Pathology	4	Didactic and Laboratory	Principles, application, and interpretation of clinical laboratory procedures, and experience with applicable techniques.
Year 2	Semester 4 (Spring)	VDMP851	Virology	3	Didactic	Morphology, biology, and classification of viruses and their relation to the causes of disease. Veterinary Virology is a 3 credit lecture course that is designed for veterinary students in the second year of the professional curriculum.
Year 2	Semester 4 (Spring)	VDMP857	Systemic Pathology	5	Didactic and Laboratory	Pathology of the organ systems of domestic animals including gross and microscopic study of lesions.
<b>Year 3 Core</b>						
Year 3	Semester 5 (Fall)	VCS860	Medicine 1	4	Didactic	Consideration of medical and pathophysiologic aspects of diseases affecting the urinary, endocrine, integumentary, respiratory, hemic, and neuromuscular systems.
Year 3	Semester 5 (Fall)	VCS861	Food Animal Medicine	4	Didactic	A study of the etiology, clinical signs, diagnosis, treatment, and control of diseases which affect cattle, swine, and sheep.
Year 3	Semester 5 (Fall)	VCS862	Theriogenology	3	Didactic	Consideration of prevention, diagnosis, and treatment of disease, and maintenance of health and productivity of the genital tract of domestic species.

Year 3	Semester 5 (Fall)	VCS863	Veterinary Surgery I	4	Didactic	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.
Year 3	Semester 5 (Fall)	VCS864	Veterinary Surgery Lab	1	Laboratory	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.
Year 3	Semester 5 (Fall)	VCS865	Exotic Pet Medicine	2	Didactic	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).
Year 3	Semester 5 (Fall)	VCS866	Clinical Skills V	0.5	Didactic and Laboratory	Demonstration, instruction and experience in physical examination and diagnostic skills necessary for routine veterinary practice.
Year 3	Semester 5 (Fall)	VCS874	Ethics/Jurisprudence	1	Didactic	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.
Year 3	Semester 6 (Spring)	VCS875	Medicine II	4	Didactic	Consideration of the medical and pathophysiological aspects of diseases affecting the gastrointestinal, cardiovascular, and ophthalmic systems, oncology, and dentistry.
Year 3	Semester 6 (Spring)	VCS876	Clinical Skills VI	0.5	Didactic and Laboratory	Demonstration, instruction and experience in physical examination and diagnostic skills necessary for routine veterinary practice.
Year 3	Semester 6 (Spring)	VCS877	Clinical Nutrition	2	Didactic	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.
Year 3	Semester 6 (Spring)	VCS878	Veterinary Surgery II	3	Didactic	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.
Year 3	Semester 6 (Spring)	VCS879	Veterinary Surgery II Laboratory	1	Laboratory	A continuation of Veterinary Surgery I Lab. 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.
Year 3	Semester 6 (Spring)	VCS880	Veterinary Business and Professional Development	1	Didactic	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.
Year 3	Semester 6 (Spring)	VCS881	Clinical Pharmacology	2	Didactic	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.
Year 3	Semester 6 (Spring)	VCS882	Equine Medicine	3	Didactic	A study of the etiology, clinical signs, diagnosis, treatment, and control of common diseases which affect horses.
Year 2	Semester 6 (Spring)	VDMP875	Veterinary Public Health	2	Didactic	The linkages between human health and animal health and production. Topics include zoonotic disease, emerging and exotic animal diseases, disaster preparedness, regulatory and community health issues focusing on the role of the veterinarian in all.

Year 1-3	Fall	VDMP816	Trade and Agricultural Health	2	Didactic	Course considers the multilateral trading system as it relates to food safety, food security, animal health, plant health, and international cooperation. The course content will be of value to students interested in food safety and security, epidemiology, public health, agriculture, food science, security studies, political science, agricultural economics, veterinary medicine, and international relations.
Year 1-2	Spring	VDMP888 B	Globalization & the Food Trade	1	Didactic	Course focuses on issues and topics including, but not limited to, disputes in the international agricultural and food trade, new concepts such as Food and Agriculture Security, and the food-related challenges faced by wealthy as well as economically poor societies.
Year 1-3	Spring	VDMP891 A	International Animal & Zoonotic Disease	1	Didactic	Course will provide students with an international perspective of transboundary animal diseases (TADs) and zoonotic diseases using an outbreak investigation and control measures approach including the global nature or interface of infectious transboundary animal diseases, zoonoses and One Health; international frameworks for mitigating animal and human health threats; emergency response; risk assessment; disease reporting systems and outbreak investigations.
Year 2-3	Fall	VDMP891 C	Backyard Poultry Disease	1	Didactic	Course will provide DVM students with practical knowledge of backyard poultry husbandry, diseases, biosecurity, care and management of domestic and exotic birds. Graduate veterinarians will have practical knowledge to be able to promote avian health relative to backyard situations, including prevention and control of new and avian associated zoonotic disease outbreaks. Biosecurity guidelines and overall management will be discussed during presentations and experiential learning activities.
Year 3	Spring	VDMP891 D	Laboratory Animal Science	2	Didactic	Management and health of common species of laboratory animals.
Year 2-3	Spring	VDMP891 E	Ecotoxicology	1	Didactic	Course is aimed at DVM students with interests in ecosystem health, and the impact of altered ecosystems on animals. The course will include an overview of ecosystems, risk assessment, ecosystem services, and the interface between agents of disease (particularly toxins and infectious agents), animals, and humans ("One Pathology"). The course will examine natural events that result in altered ecosystems as well as alterations induced by human activity, and the impact of these alterations on domestic and wild animals.
Year 3	Summer	VDMP891 F	Top/Herd Disease Inv. Technique	2	Didactic	Course is designed to provide the knowledge necessary, through a combination of lecture, discussion, and practical experience, for new graduate veterinarians to practice herd disease-outbreak investigation in cow-calf, feedlot, and dairy practices. This course will meet over a two week period, consecutive days, during the latter part of summer.
<b>Year 4 Core Rotations</b>						
Year 4	All semesters	VCS900	Vet. Diag. Imaging I	3	Laboratory	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.
Year 4	All semesters	VCS904	Clinical Anesthesiology	3	Laboratory	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.
Year 4	All semesters	VCS906	Ophthalmology	2	Laboratory	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.
Year 4	All semesters	VCS910	Livestock Local Practice	2	Laboratory	A study of individual livestock medicine and surgery.
Year 4	All semesters	VCS912	Livestock Med. & Surg.	2	Laboratory	Students will work under faculty supervision in an in-house setting.
Year 4	All semesters	VCS920	Equine Med	2	Laboratory	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.
Year 4	All semesters	VCS922	Equine Surgery	2	Laboratory	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.
Year 4	All semesters	VCS924	Equine Field Service	2	Laboratory	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.
Year 4	All semesters	VCS930	SA Internal Med.	3	Laboratory	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.
Year 4	All semesters	VCS932	SA General Medicine	3	Laboratory	The study of preventative medicine, general practice medicine, and specialty medicine.
Year 4	All semesters	VCS934	SA Soft Tissue Surgery	3	Laboratory	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.
Year 4	All semesters	VCS936	SA Orthopedic Surgery	3	Laboratory	Course is designed to train senior or elective veterinary students in diagnosis/treatment of small animal orthopedic surgical diseases through the Orthopedic Service of the Veterinary Medical Teaching Hospital.
Year 4	All semesters	VCS938	Dentistry	1	Laboratory	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.
Year 4	All semesters	VCS940	SA Emergency	2	Laboratory	Enhanced training in the management of small animal patients presented to the emergency service. Evaluation, management, and monitoring of small animal patients in the intensive care unit.
Year 4	All semesters	VDMP902	Diagnostic Medicine	3	Laboratory	Practical experience in necropsy procedures and laboratory findings.



<b>Year 4 Elective Rotations</b>	<b>(11 credits required)</b>					
Year 4	All semesters	VCS901	Clinical Externship/Programmed Study	0-6	Laboratory	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.
Year 4	All semesters	VCS903	Laboratory Animal Medicine	2	Laboratory	The study of laboratory animal medicine or comparative medicine to include colony health monitoring, preventive medicine, surgery, investigator support, and regulatory oversight.
Year 4	All semesters	VCS905	Exotic Animal, Wildlife, and Zoo Animal Medicine	3	Laboratory	Study of exotic, wildlife, and zoo animal medicine through participation in the clinical service in the Veterinary Health Center. Problem solving, differential diagnosis, diagnostic procedures, and medical and surgical therapy of non-domestic animals will be emphasized. Annual preventative medicine, medical procedures, and surgical procedures are also routinely performed at the City of Manhattan Sunset Zoo.
Year 4	All semesters	VCS907	Supplemental Exotic Animal, Wildlife, and Zoo Animal Medicine	3	Laboratory	Additional training in the 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.
Year 4	Summer,	VCS909	Urgent Care	1	Laboratory	Additional training and skills in triaging and managing wound fractures, trauma, cardiovascular shock as well as patient in respiratory distress. This would be conducted through lecture/discussion and case base learning.
Year 4	Summer,	VCS913	Advanced Feedlot Production	2	Laboratory	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.
Year 4	Spring,	VCS915	Advanced Cow-Calf Production Management	2	Didactic	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.
Year 4	Spring, Fall	VCS917	Advanced Rural Food Animal Business	2	Didactic	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.
Year 4	Fall, Spring	VCS919	Food Animal Bull Reproduction	2	Laboratory	Students will get hands-on experience and become competent performing a complete Breeding Soundness Exam. Other reproductive topics will be covered.
Year 4	Offered only 1A, 1B, 1C, 8C, 9A and 9B	VCS921	Clinical Equine Theriogenology	2	Laboratory	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.
Year 4	Fall	VCS923	Advanced Equine Studies	4	Laboratory	Students will have opportunities for routine and advanced clinical skills training and case management. Course discussions and 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.
Year 4	All semesters	VCS925	Supplemental Equine Studies	2	Laboratory	An opportunity to pursue additional equine studies (medicine, surgery, etc.) in depth and assume substantial responsibility for care of hospitalized cases. Or students have the option to conduct research and present a seminar on a medicine or surgical subspecialty and pursue a special problem.
Year 4	All semesters	VCS931	Clinical Oncology	2	Laboratory	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.
Year 4	All 3 week except 2D, 4D, 6E, 9A	VCS933	Dermatology / Medicine	3	Laboratory	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.
Year 4	All 2 week rotations except 1C	VCS935	Comparative Cardiology	2	Laboratory	Designed to expose students to the cardiovascular system of domestic animals, emphasizing clinical management and understanding of common congenital and acquired cardiac diseases.
Year 4	All semesters	VCS937	Shelter Medicine	2	Laboratory	The rotation will be a combination of in-class and laboratory exercises in Manhattan, and hands-on experience at regional shelters. Topics include population medicine, infectious disease recognition and control, surgical sterilization, behavioral testing, and legal issues common to shelter settings.
Year 4	All semesters	VCS939	Supplemental Clinical Small Animal Soft	3	Laboratory	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
Year 4	All semesters	VCS941	Supplemental Small Animal Internal	3	Laboratory	Additional topics in internal medicine. The student may be required to participate in a special problem with a written or oral report.
Year 4	Fall, Spring	VCS942	Advanced Surgical Experience	2	Laboratory	Designed to increase exposure to soft tissue surgical theories and techniques by providing both hands on surgical experience on cadavers and literature review skills.
Year 4	All semesters	VCS943	Supplemental Clinical Small Animal	3	Laboratory	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.
Year 4	All semesters	VCS944	Supplemental Small Animal Emergency	2	Laboratory	An opportunity to pursue additional training in the management of small animal patients presented to the emergency services. Evaluation, management, and monitoring of small animal patients in the intensive care unit.
Year 4	Summer,	VCS945	Supplementary Dentistry for Small Animals	1	Laboratory	A one week course where students will be instructed through lecture, cadaver labs, and live animal care. Topics covered will include dental evaluation techniques, instrumentation, dental radiography, tooth extraction techniques and regional anesthesia. Objectives of the course will be to provide 4th year students with additional training of basic dentistry knowledge and experience performing oral exams, dental probing, scaling, polishing, radiographs and tooth extractions.
Year 4	Fall, Summer, Spring	VCS946	Shelter Operations Consultation	1	Laboratory	This rotation will expose veterinary students to formal shelter consultation procedures. Students will learn how to take a critical look at the health of animal shelters to identify what is being done well and what needs to be improved. Students will also learn how to formulate recommendations in a way that does not overwhelm the administration of the shelters and can easily be implemented in a stepwise fashion.

Year 4	Fall	VCS947	Advanced Bovine Palpation	2	Laboratory	Provide numerous opportunities for the student to learn how to diagnose pregnancy using palpation techniques.
Year 4	All semesters	VCS948	Supplemental Small Animal General	3	Laboratory	Additional training in preventative medicine, general practice medicine, and specialty medicine.
Year 4	Summer,	VCS949	Shelter Medicine – Community Outreach Crauer, Dressler	1	Laboratory	Designed to give students an opportunity to build practice skills in a community outreach setting. This one week elective course will introduce students to access to care issues and prepare them to deliver veterinary services in socioeconomically diverse settings. The rotation will consist of in-class lessons and discussion followed by outreach clinics. Clinics will primarily focus on wellness exams, preventative medicine and treatment of routine medical conditions.
Year 4	All semesters	VCS950	Problems in Medicine or Surgery	1	Didactic and Laboratory	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.

Pre-2026				2026 Curriculum				
Semester	Class	Name	Credits	Semeste	Class	Name	Credits	Gain/Loss
F1	VAP804	Vet Phys 1	5	F1	VAP805	Cell Phys	3	
F1	VAP806	Gross Anatomy 1	6	F1	VAP806	Gross Anatomy 1	6	
F1	VAP808	Intro to Research	1	F1	VAP808	Intro to Research	1	
F1	VAP810	Microanatomy	5	F1	VAP807	Systems 1	6	
F1	VCS809	Clinical Skills	1	F1	VCS809	Clinical Skills	1	
F1	VCX800	Career Development	0	F1	VDMP800	Career Development	0	
				F1	VAP835	Animal Welfare	1	
F1		Electives	2	F1		Electives	2	
		Total	20			Total	20	0
S1	VAP816	Gross Anatomy II	5	S1	VAP816	Gross Anatomy II	5	
S1	VAP818	Physiology II	6	S1	VAP817	Systems II	4	
S1	VCS816	Clinical Skills II	1	S1	VCS816	Clinical Skills II	1	
S1	VDMP817	Immunology	3	S1	VDMP818	Immunology	3	
S1	VDMP818	Epidemiology	2	S1	VDMP818	Epidemiology	2	
				S1	VDMP815	Clin Path 1	2	
				S1	VDMP814	Bacteriology	3	
S1		Electives	3	S1		Electives	1	
		Total	20			Total	21	1
Current				Proposed				
Semester	Class	Name	Credits	Semeste	Class	Name	Credits	Gain/Loss
F2	VAP844	Pham 1	4	F2	VAP844	Pharm 1	4	
F2	VCS 839	Clinical Skills III	1	F2	VCS 839	Clinical Skills III	1	
F2	VDMP814	Bacteriology	4	F2	VDMP831	Virology	3	
F2	VDMP832	General Path	4	F2	VDMP832	General Path	4	
F2	VDMP834	Parasitology	4	F2	VDMP834	Parasitology	4	
F2	VDMP 836	Integration III	1		VDMP835	Clin Path 2	3	
F2	Electives		2	F2	Electives		2	
		Total	20			Total	21	1
S2	VAP845	Toxicology	2	S2	VCS844	Medicine 1	4	
S2	VAP846	Pharmacology II	2	S2	VAP846	Pharmacology II	2	
S2	VCS 845	Radiology	3	S2	VCS 845	Radiology	3	
S2	VCS846	Clinical Skills IV	1	S2	VCS846	Clinical Skills IV	1	
S2	VDMP847	Integration IV	1	S2	VCS843	Surgery Principles	2	
S2	VDMP848	Clin Path	4	S2	VDMP841	Veterinary Public Health	2	
S2	VDMP857	Systemic Path	5	S2	VDMP857	Systemic Path	5	
S2	VDMP851	Virology	3					
	Electives		1	S2	Electives		2	
		Total	22			Total	21	-1
Current				Proposed				
Semester	Class	Name	Credits	Semeste	Class	Name	Credits	Gain/Loss
F3	VCS860	Medicine 1	4	F3	VCS867	Medicine II	4	
F3	VCS861	Food Animal Medicine	4	F3	VCS861	Food Animal Medicine	4	
F3	VCS862	Theriogenology	3	F3	VCS862	Theriogenology	3	
F3	VCS863	Vet Surg 1	4	F3	VCS863	Vet Surg 1	3	
F3	VCS864	Vet Surg 1 Lab	1	F3	VCS864	Applied Clini Skills & S	3	
F3	VCS865	Exotic Pet Medicine	2	F3	VCS865	Exotic Pet Medicine	2	
F3	VCS866	Clinical Skills V	0.5	F3				
F3	VCS874	Ethics/Jurisprudence	1					
F3	Electives		2	F3	Electives		2	
		Total	21.5			Total	21	-0.5
S3	VCS875	Medicine II	4	S3	VCS874	Ethics/Jurisprudence	1	
S3	VCS877	Clinical Nutrition	2	S3	VCS877	Clinical Nutrition	2	
S3	VCS878	Vet Surg II	3	S3	VCS878	Vet Surg II	3	

S3	VCS879	Vet Surg II	1	S3	VCS879	Vet Surg II	1	
S3	VCS880	Practice Management	1	S3	VCS880	Practice Management	1	
S3	VCS881	Clin Pharmacology	2	S3	VCS881	Clin Pharmacology	2	
S3	VCS882	Medicine III	3	S3	VCS882	Medicine III	3	
S3	VCS876	Clinical Skills VI	0.5	S3	VCS876	3rd Year Clinical Skills 2	1	
S3	VDMP875	Veterinary Public Health	2	S3	VAP871	Toxicology	3	
S3	Electives		2	S3	Electives		3	
		Total	20.5			Total	20	-0.5
Net Overall Impact								
								0