<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Veterinary Medicine in Society</td>
<td>Fall</td>
<td>1</td>
<td>max 10. Role of the veterinary profession in animal and human health. Impact of veterinary medicine on society.</td>
</tr>
<tr>
<td>105</td>
<td>Veterinary Medical Terminology</td>
<td>Fall</td>
<td>1</td>
<td>R: Approval of college.                                                                                                                    Veterinary medical terminology, focusing on fundamental recognition, interpretation and usage of medical terms.</td>
</tr>
<tr>
<td>120</td>
<td>Veterinary Comparative Nutrition</td>
<td>Spring</td>
<td>2</td>
<td>R: Approval of college.                                                                                                                    Energy metabolism, nutrients and nutrient requirements of common domestic species.</td>
</tr>
<tr>
<td>130</td>
<td>Comparative Anatomy for Veterinary Technicians</td>
<td>Fall</td>
<td>2</td>
<td>Concurrently.                                                                                                                                   Gross anatomy of the common animal species encountered in veterinary medicine. Overview of the functional anatomy of the musculoskeletal, digestive, cardiovascular, cutaneous, respiratory, urogenital, nervous, and endocrine systems and the special senses.</td>
</tr>
<tr>
<td>135</td>
<td>Pharmacology for Veterinary Technicians</td>
<td>Fall</td>
<td>3</td>
<td>Concurrently.                                                                                                                                   Fundamentals of characteristics, classification and usage of veterinary pharmaceuticals. Introduction to and application of dosage and formulation calculations.</td>
</tr>
<tr>
<td>150</td>
<td>Hospital Procedures and Communication</td>
<td>Fall</td>
<td>2</td>
<td>Concurrently.                                                                                                                                   Development of various modalities of professional and client communication skills.</td>
</tr>
<tr>
<td>155</td>
<td>Veterinary Technology Careers and Professional Development</td>
<td>Spring</td>
<td>1</td>
<td>R: Approval of college.                                                                                                                    Career options in veterinary technology, discussion of professional, ethical and legal considerations. Portfolio development, resume and cover-letter writing skills.</td>
</tr>
<tr>
<td>160</td>
<td>Small Animal Nursing Skills</td>
<td>Spring</td>
<td>3</td>
<td>Concurrently.                                                                                                                                   Small animal nursing including principles of restraint, physical examination, management techniques, and behavior of common companion animals. Recognition of common canine and feline breeds.</td>
</tr>
<tr>
<td>165</td>
<td>Large Animal and Laboratory Animal Nursing Care Techniques</td>
<td>Fall</td>
<td>2</td>
<td>VM 160 and VM 205. Fundamentals of the handling of equine, food animal and laboratory animal species. Breed identification, specimen collection, physical exam, medication administration and other nursing care procedures relevant to the species.</td>
</tr>
<tr>
<td>166</td>
<td>Hematology and Immunology for Veterinary Technicians</td>
<td>Spring</td>
<td>2</td>
<td>VM 250 and VM 110 C: VM 175. Structure and function of normal blood cells, cellular and humoral immunity, mechanisms of hemostasis, blood group serology, transfusion medicine and vaccination.</td>
</tr>
<tr>
<td>170</td>
<td>Clinical Pathology Laboratory I for Veterinary Technicians</td>
<td>Spring</td>
<td>1</td>
<td>Concurrently.                                                                                                                                   Veterinary clinical pathology laboratory including diagnostic procedures in hematology, serology and ELISA methodology.</td>
</tr>
<tr>
<td>175</td>
<td>Clinical Pathology Laboratory II for Veterinary Technicians</td>
<td>Spring</td>
<td>1</td>
<td>Concurrently.                                                                                                                                  Comprehensive veterinary clinical pathology laboratory, including diagnostic procedures in urology, dermatology, cytology, and advanced methods in hematology.</td>
</tr>
<tr>
<td>205</td>
<td>Preventive Animal Health Care for Veterinary Technicians</td>
<td>Spring</td>
<td>3</td>
<td>Concurrently.                                                                                                                                   Development of husbandry techniques to enhance wellness and reduce the risk of disease, injury and stress in common domestic and exotic animals.</td>
</tr>
<tr>
<td>210</td>
<td>Surgical Nursing for Veterinary Technicians</td>
<td>Fall</td>
<td>2</td>
<td>Concurrently.                                                                                                                                   Role of the veterinary technician as a member of the veterinary surgical team.</td>
</tr>
<tr>
<td>215</td>
<td>Surgical Nursing and Anesthetic Management Laboratory</td>
<td>Fall</td>
<td>1</td>
<td>Concurrently.                                                                                                                                   Principles and techniques in veterinary surgical nursing and anesthesia.</td>
</tr>
<tr>
<td>220</td>
<td>Parasitology for Veterinary Technicians</td>
<td>Spring</td>
<td>2</td>
<td>VM 140 and VM 176 and VM 205. Parasites of veterinary and public health importance, including gross and microscopic morphology, transmission, and control.</td>
</tr>
<tr>
<td>250</td>
<td>Veterinary Comparative Clinical Physiology</td>
<td>Fall</td>
<td>4</td>
<td>Concurrently.                                                                                                                                   Function, regulation, and integration of organs and organ systems of common domestic species. Concepts with clinical relevance.</td>
</tr>
<tr>
<td>290</td>
<td>Special Studies in Veterinary Medicine</td>
<td>Fall</td>
<td>1</td>
<td>Concurrently.                                                                                                                                   Faculty-directed individual study on an experimental, theoretical or applied problem. May involve a supervised off-campus experience.</td>
</tr>
<tr>
<td>303</td>
<td>Anesthesiology for Veterinary Technicians</td>
<td>Fall</td>
<td>2</td>
<td>Concurrently.                                                                                                                                   Pharmacologic action of preanesthetic and anesthetic drugs. Principles and techniques of induction, maintenance, monitoring, and recovery of the patient. Human methods of euthanasia.</td>
</tr>
<tr>
<td>304</td>
<td>Radiology for Veterinary Technicians</td>
<td>Spring</td>
<td>2</td>
<td>Concurrently.                                                                                                                                   Production of radiographs, components of the x-ray machine, use of screens and grids, handling film, imaging quality, film processing, patient positioning, and radiation safety.</td>
</tr>
<tr>
<td>305</td>
<td>Hospital Practice Management for Veterinary Technologists</td>
<td>Spring</td>
<td>2</td>
<td>Concurrently.                                                                                                                                   Veterinary practice economics, personnel management, inventory control and marketing techniques.</td>
</tr>
</tbody>
</table>
VM—Veterinary Medicine

337 Introduction to Foodborne Pathogens  
Fall, Summer. 3(3-0) P: Open to graduate students in the Food Safety Major or approval of department. Microbial classification, growth, genetics, epidemiology, transmission and ecology of major food and waterborne pathogens including bacteria, viruses, parasites, prions and protozoa.

369 Introduction to Zoo and Aquarium Science  
Spring. 3(3-0) Interdepartmental with Fisheries and Wildlife and Integrative Biology and Landscape Architecture. Administered by Integrative Biology. P: BS 162 or LB 144 or BS 182H SA: ZOL 369 Fundamentals of zoo and aquarium operations including research, interpretation, design, nutrition, captive breeding, conservation, ethics and management.

410 Veterinary Technology Clerkship in Anesthesiology  
Fall, Spring, Summer. 3 credits. P: (VM 270 and VM 275 and VM 245 and VM 304) and completion of Tier I writing requirement RB: Completion of preclinical course work. Application of principles and techniques in anesthesiology.

411 Veterinary Technology Clerkship in Radiology  
Fall, Spring, Summer. 3 credits. P: VM 270 and VM 275 and VM 245 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in radiology.

412 Veterinary Technology Clerkship in Companion Animal Medicine  
Fall, Spring, Summer. 3 credits. P: (VM 270 and VM 275 and VM 245 and VM 304) and completion of Tier I writing requirement RB: Completion of pre-clinical course work. Application of principles and techniques in restraint, examination, nursing care, monitoring, and preventive medicine of companion animals.

413 Veterinary Technology Clerkship in Companion Animal Surgery  
Fall, Spring, Summer. 3 credits. P: VM 270 and VM 275 and VM 245 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in surgical nursing.

414 Veterinary Technology Clerkship in Equine Medicine and Surgery  
Fall, Spring, Summer. 3 to 6 credits. P: VM 270 and VM 275 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in equine medicine and surgery.

415 Veterinary Technician Clerkship in Food Animal and Equine Medicine and Surgery  
Fall, Spring, Summer. 3 to 6 credits. P: VM 270 and VM 275 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in food animal and equine medicine and surgery.

412 Veterinary Technology Clerkship in Companion Animal Medicine  
Fall, Spring, Summer. 3 credits. P: (VM 270 and VM 275 and VM 245 and VM 304) and completion of Tier I writing requirement RB: Completion of pre-clinical course work. Application of principles and techniques in restraint, examination, nursing care, monitoring, and preventive medicine of companion animals.

413 Veterinary Technology Clerkship in Companion Animal Surgery  
Fall, Spring, Summer. 3 credits. P: VM 270 and VM 275 and VM 245 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in surgical nursing.

414 Veterinary Technology Clerkship in Equine Medicine and Surgery  
Fall, Spring, Summer. 3 to 6 credits. P: VM 270 and VM 275 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in equine medicine and surgery.

415 Veterinary Technician Clerkship in Food Animal and Equine Medicine and Surgery  
Fall, Spring, Summer. 3 to 6 credits. P: VM 270 and VM 275 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in food animal and equine medicine and surgery.

412 Veterinary Technology Clerkship in Companion Animal Medicine  
Fall, Spring, Summer. 3 credits. P: (VM 270 and VM 275 and VM 245 and VM 304) and completion of Tier I writing requirement RB: Completion of pre-clinical course work. Application of principles and techniques in restraint, examination, nursing care, monitoring, and preventive medicine of companion animals.

413 Veterinary Technology Clerkship in Companion Animal Surgery  
Fall, Spring, Summer. 3 credits. P: VM 270 and VM 275 and VM 245 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in surgical nursing.

414 Veterinary Technology Clerkship in Equine Medicine and Surgery  
Fall, Spring, Summer. 3 to 6 credits. P: VM 270 and VM 275 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in equine medicine and surgery.

415 Veterinary Technician Clerkship in Food Animal and Equine Medicine and Surgery  
Fall, Spring, Summer. 3 to 6 credits. P: VM 270 and VM 275 and VM 304 RB: Completion of preclinical course work. Application of principles and techniques in food animal and equine medicine and surgery.
500 Veterinary Science I
Fall. 2(1-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Introduction to veterinary science. Evidence based medicine, host, animal and environmental interactions in health.

501 One Health I
Fall. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.

502 Veterinary Doctoring I
Fall. 1(0-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Introduction to professionalism, basic communication skills, effective use of teams, medical ethics, health records, confidentiality, professional use of social media, and safe veterinary practices. Clinical doctoring skills, with emphasis on cutaneous, hematologic, immunologic, reproductive, and respiratory systems in health.

503 Veterinary Career and Practice Management I
Fall. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.
Debt, budgets, financial risk assessment, financial planning, career development, work-life balance, and recognizing impaired physical or mental health and the need for professional help.

504 One Health II
Spring. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.
Veterinary medicine and public health. Introduction to veterinary interactions with the public, including disaster response and crisis communication. Relevant laws, regulations, and regulatory agencies.

505 Veterinary Doctoring II
Spring. 1(0-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Professionalism, communication, medical ethics, and social competence, including professional interactions, client communication, history taking, and recognizing cultural differences and their impact. Clinical doctoring skills, with emphasis on cardiovascular, digestive, endocrine, musculoskeletal, nervous, and urinary systems in health.

506 Veterinary Career and Practice Management II
Spring. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.
Health teams, leadership, workplace behavior, DVM job market, and the process of securing DVM employment.

507 One Health III
Fall. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.
Social issues of relevance to animals and the veterinary community. Emphasis on issues related to cutaneous, hematologic, immunologic, reproductive, and respiratory systems.

508 Veterinary Doctoring III
Fall. 1(0-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Professionalism, communication, medical ethics, social competence, and clinical doctoring skills, with emphasis on issues and skills involving disorders of the cutaneous, hematologic, immunologic, reproductive, and respiratory systems.

509 Veterinary Career and Practice Management III
Fall. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.
Veterinary business finance including financial statement literacy and ratio analysis. Cost-of-care estimates and their communication to clients. Giving and receiving feedback, building positive work relationships, conflict management.

510 One Health IV
Spring. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.
Social and medical issues of relevance to animals and the veterinary community. Emphasis on issues related to cardiovascular, digestive, endocrine, musculoskeletal, nervous, and urinary systems.

512 Veterinary Doctoring IV
Spring. 1(0-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Professionalism, communication, medical ethics, social competence, and clinical doctoring skills, with emphasis on issues and skills involving disorders of the cardiovascular, digestive, endocrine, musculoskeletal, nervous, and urinary systems. Writing prescriptions, discharge instructions, and patient records. Managing emotions in work settings.

513 Ethical and Animal Welfare Issues in the Veterinary Profession
Fall. 2(1-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Identifying and communicating ethical challenges and animal welfare issues in the veterinary profession.

514 Comparative Lifestage Nutrition
Spring. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.

515 Animals in Society
Fall. 2(1-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Role of animals and veterinary medicine in society. Intersections of animal behavior, animal welfare, ethics, public health and regulatory medicine.

516 Musculoskeletal System I
Fall. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the musculoskeletal system in health.

517 Nervous System I
Fall. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the nervous system in health.

518 Cardiovascular System I
Fall. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the cardiovascular system in health.

519 Cutaneous System I
Fall. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the cutaneous system in health.

520 Respiratory System I
Spring. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the respiratory system in health.

523 Immunologic and Hematologic Systems I
Spring. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the immunological and hematologic systems in health.

524 Comparative Lifestage Nutrition
Spring. 2(1-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the digestive system in health.

525 Digestive System I
Spring. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the digestive system in health.

527 Endocrine System I
Spring. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the endocrine system in health.

528 Reproductive System I
Spring. 2(1-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the reproductive system in health.

529 Urinary System I
Spring. 2(1-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Structure and function of the urinary system in health.

530 Veterinary Science II
Fall. 4(2-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Host, agent, environment interaction for disease causation.
VM—Veterinary Medicine

531 Immunologic and Hematologic System II
Fall. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Immunologic and hematologic disorders of animals.

532 Veterinary Integrative Problem Solving
Fall. 2(1-2) RB: Completion of Year 1 in the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Integration of subject material from concurrent and previous courses using a problem-based learning format.

533 Veterinary Epidemiology
Fall. 3(3-0) RB: Completion of Year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Basic epidemiologic theory and study design. Veterinary descriptive and inferential biostatistics. Production veterinary medicine.

534 Cutaneous System II
Fall. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Cutaneous system disorders of animals.

535 Reproductive System II
Fall. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Reproductive system disorders of animals.

536 Respiratory System II
Fall. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Respiratory system disorders of animals.

537 Veterinary Career and Practice Management IV
Spring. 1(0-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Productivity and profitability, marketing, writing resumes and cover letters, interview strategies, professional development, and team selection, communication, and evaluation.

543 Cardiovascular Diseases
Spring. 2(2-0) RB: Completion of year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Cardiovascular diseases of domestic animals. Pathogenesis, diagnosis, and treatment.

544 Veterinary Public Health
Fall. 2(2-0) RB: Completion of year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Veterinary environmental, occupational, and public health. Milk and meat hygiene. Control of zoonotic diseases.

545 Principles of Anesthesia and Surgery
Spring. 4(3-2) RB: Completion of year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Administering anesthetic agents. Fundamentals of surgery including sterile technique, tissue handling, suture patterns, wound healing, and postoperative care.

546 Musculoskeletal Diseases
Spring. 4(4-0) RB: Completion of year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.

547 Respiratory Diseases
Fall. 2(0-2) RB: Completion of year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.

549 Applied Diagnostic Imaging
Fall. 1(0-2) RB: Completion of Year 1 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.

553 Theriogenology and Urologic Diseases
Fall. 5(4-2) RB: Completion of Year 2 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.

554 Hematological, Oncological and Dermatological Diseases
Fall. 3(3-0) RB: Completion of Year 2 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Hematological, oncological and dermatological diseases of domestic animals. Pathogenesis, clinical presentation, diagnosis, and treatment.

555 Neurological and Ophthalmological Diseases
Fall. 3(3-0) RB: Completion of Year 2 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Neurological and ophthalmological diseases of domestic animals. Pathogenesis, diagnosis, and treatment.

557 Operative Surgery
Fall. 2(1-3) RB: Completion of Year 2 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Soft tissue and orthopedic surgery of domestic animals. Preoperative evaluation, surgery, and postoperative care.

558 Digestive Diseases of Domestic Animals
Fall. 3 credits. RB: Completion of Year 2 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Digestive diseases of domestic animals. Diagnosis, therapy, prophylaxis, and management.

559 Metabolic and Endocrinological Diseases
Fall. 2(2-0) RB: Completion of Year 1 in the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine.
Pathogenesis, diagnosis, and treatment of metabolic and endocrinologic diseases of domestic animals.

561 Private Practice Ownership
Spring. 1(1-0) R: Open to graduate-professional students in the College of Veterinary Medicine.
Demographic studies, business entities, financing, leadership, business and marketing plans, and entrepreneurial ownership considerations when starting a practice or buying an existing practice.

565 Cardiovascular System II
Spring. 2(1-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Cardiovascular system disorders of animals.

568 Urinary System II
Spring. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Urinary system disorders of animals.

569 Musculoskeletal System II
Spring. 2(1-2) R: Open to graduate-professional students in the College of Veterinary Medicine.
Musculoskeletal disorders of animals

571 Nervous System II
Spring. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Nervous system disorders of animals.

575 Digestive System II
Spring. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Digestive system disorders of animals.

577 Endocrine System II
Spring. 3(1-4) R: Open to graduate-professional students in the College of Veterinary Medicine.
Endocrine system disorders of animals.
611 Veterinary Externship
Fall, Spring, Summer. 3 credits. A student may earn a maximum of 18 credits in all enrollments for this course. RB: Completion of semester 5 of the graduate-professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Clinical or research experience in an off-campus setting.

690 Special Problems in Veterinary Medicine
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to graduate-professional students in the College of Veterinary Medicine. Individual study directed by a faculty member on an experimental, theoretical, or applied problem. May involve off-campus experience in a preceptorial mode.

692 Career Development and Business Skills
Spring. 3 credits. RB: Open only to graduate-professional students who have completed semester 5 of the graduate professional program in the College of Veterinary Medicine. R: Open to graduate-professional students in the College of Veterinary Medicine. Development of leadership, business and interpersonal skills, career planning, and goal setting.

810 Food Safety Introduction and Professional Management
Fall, Spring, Summer. 2 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. RB: One year of college level science including one semester of microbiology. R: Open only to students in the Master of Science degree in Food Safety or approval of college. Various food safety topics. Organizational, managerial, leadership and communication skills.

811 Evolution and Ecology of Foodborne Pathogens
Fall, Spring, Summer. 3 credits. R: Open to master’s students in the Food Safety major or approval of college. Evolution of foodborne pathogens. Ecology of microbial organisms found in the food chain from introduction through human consumption.

812 Food Safety Toxicology
Fall, Spring. 3 credits. R: Open to master’s students in the Food Safety major or approval of college. Nature and properties of toxic substances through the food chain. Nature and magnitude of hazards to human health.

813 Special Studies in Food Safety
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open to master’s students in the Food Safety major or approval of college. Faculty supervised independent study on an experimental, theoretical or applied project. May involve on-campus or off-campus experience.

814 Packaging for Food Safety
Summer. 3 credits. Interdepartmental with Packaging. Administered by Veterinary Medicine. RB: Enrollment in graduate program in related field. R: Open to master's students in the Packaging major or approval of college. Current issues in packaging and food safety.

815 Applied Project in Food Safety
Fall, Spring, Summer. 3 credits. P: VM 810 or approval of college. R: Open to master's students in the Food Safety Major or approval of college. Faculty directed student project.

817 Livestock Pre-Harvest Food Safety
Spring. 3 credits. RB: Enrollment in graduate program in related field. R: Open to master's students in the Food Safety Major or approval of college. Principles for improvement of pre-harvest food safety. Emphasis on microbial, chemical, and toxic hazards. Strategies to reduce pre-harvest risks in many food production species.

820 Current Topics in Comparative Medicine and Integrative Biology
Fall, Spring. 1 to 2 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Enrollment in graduate-professional program or graduate program in the biomedical sciences. R: Open to graduate students in the College of Veterinary Medicine. Topics in comparative medicine using recently published literature to illustrate concepts.

821 Food Protection and Defense
Fall. 3 credits. Interdepartmental with Criminal Justice. Administered by Veterinary Medicine. R: Open to graduate students in the College of Veterinary Medicine or in the Food Safety major or in the Veterinary Medicine or in the Criminal Justice major or approval of college. Food systems and criminal justice approaches to prepare for and solve issues relating to food safety and defense.

824 Global Food Safety
Fall. 3(3-0) R: Professional or graduate status with knowledge of food safety. R: Open to graduate students in the Food Safety major or approval of college. Understanding food safety challenges in different geographic regions. Development of interventions for food safety in a global context.

825 Quantifying Food Risk
Fall. 3(3-0) R: Professional or graduate status with knowledge of food safety. R: Open to master's students or graduate-professional students in the College of Veterinary Medicine or in the School of Criminal Justice or in the School of Packaging or in the Food Safety major or approval of college. Food risks based on quality, safety, fraud and intentional threats.

826 Creating a Food Safety Culture
Summer of odd years. 3(3-0) R: Professional or graduate status with knowledge of food safety. R: Approval of college. Explores proven, evidence-based ways to change or strengthen the food safety culture of an organization and influence employee behavior.

827 Food Safety Modernization Act and Hazard Analysis and Critical Control Point Systems
Spring. 3(3-0) R: Professional or graduate status with knowledge of food safety. R: Open to graduate students in the Food Safety Major or approval of college. Food safety requirements for food establishments subject to the Food Safety Modernization Act. Food safety management systems with R: Open to on the Hazard Analysis and Critical Control Points (HACCP) Approach.

830 Food Safety Research Methods
Fall, Summer. 3(3-0) R: Open to graduate students in the College of Veterinary Medicine or approval of college. Conducting and interpreting food safety research. Interpretation and critique of the literature, study design, and communication of food safety research.

831 Foodborne Disease Epidemiology for the Professional
Fall, Summer. 3(3-0) R: Open to master's students in the Food Safety major or approval of college. Applied foodborne disease investigation through the use of case studies.

834 Current Issues in Food Safety
Fall, Spring, Summer. 1 to 9 credits. A student may earn a maximum of 9 credits in all enrollments for this course. RB: Open to graduate students in the College of Veterinary Medicine or in the Department of Large Animal Clinical Sciences or in the Food Safety Major or approval of college. Allergen control in the manufacturing setting, microbial control in the manufacturing setting, good manufacturing practices, ingredient safety, preventative control, produce food safety and other topics as needed.

835 Food Safety for Produce
Spring. 3(3-0) R: Open to graduate students in the Food Safety Major or approval of department. Overview of food safety requirements for the produce sector with a focus on Good Agriculture Practices (GAPs).

836 Food Safety Issues by Commodity
Spring. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to graduate students in the College of Veterinary Medicine or in the Food Safety Major or approval of college. Food safety issues specific to different commodity groups or segments of food industry including meat safety, dairy safety, beverage safety, pet food safety, ingredient safety, and food waste recovery.
VM—Veterinary Medicine

840  Anti-Counterfeit Strategy and Product Protection
     Summer. 3(3-0) Interdepartmental with Criminal Justice and Packaging. Administered by Veterinary Medicine. R: Open to graduate students in the School of Criminal Justice or in the School of Packaging or in the Food Safety major or approval of department. Theory and applied techniques for anti-counterfeit strategies and product protection for food and consumer products.

844  Food Fraud Prevention
     Fall. 3(3-0) R: Open to graduate students in the College of Veterinary Medicine or in the Department of Large Animal Clinical Sciences or in the Food Safety Major or approval of college. Theory and applied techniques for food fraud prevention strategies.

899  Master's Thesis Research
     Fall, Spring, Summer. 1 to 10 credits. A student may earn a maximum of 18 credits in all enrollments for this course. Master's thesis research.

999  Doctoral Dissertation Research
     Fall, Spring, Summer. 1 to 36 credits. A student may earn a maximum of 36 credits in all enrollments for this course. Doctoral dissertation research.