

Animal Science Assessment Plan
Rev. 2/16/2021

Animal Science	16-17	17-18	18-19	19-20	20-21	21-22
ANSCB1 - Introduction to Animal Science						
• Upon completion the student will be able to: Describe economically significant breeds of animals and their unique adaptations.			C			
• Upon completion the student will be able to: Discuss nutritional needs of animals and for various body functions.			C			
• Upon completion the student will be able to: Identify animal contributions to the development of human civilizations.			C			
• Upon completion the student will be able to: Describe the function of the major body systems.	C		C			
• Upon completion the student will be able to: Identify reproductive cycles and biotechnological principles of animal reproduction.	C	C	C			
• Upon completion the student will be able to: Analyze genetic change through artificial/natural selection.	C	C	C			
• Upon completion the student will be able to: Describe animal behavior as it relates to animal domestication, health and performance.	C	C	C			
• Upon completion the student will be able to: Explain basic strategies for disease control, prevention and management.	C		C			
• Upon completion the student will be able to: Utilize the scientific method to collect data, calculate production parameters and make scientifically-based management decisions.			C			
• Upon completion the student will be able to: Identify and discuss current issues affecting animal agriculture.			C			
ANSCB2 - Beef Production						
• 1. Upon completion the student will be able to: Explain the history and development of Bos Taurus and Bos Indicus cattle and the modern breeds.		C				
• 2. Upon completion the student will be able to: Design a plan for establishing and managing a breeding herd of purebred or commercial cattle.		C				
• 3. Upon completion the student will be able to: Recognize desirable conformation/selection traits in 3 classes of cattle: replacement heifers, market steers, herd sires.		C				
• 4. Upon completion the student will be able to: Estimate weights and age of market cattle.		C				
• 5. Upon completion the student will be able to: Develop a herd health management program		C				
ANSCB3 - Sheep Production						
• 1. Upon successful completion of the course, student will be able to analyze the differences in a minimum of eight common breeds of sheep and discuss in a group setting.					P	
• 2. Upon successful completion of the course, student will be able to evaluate quality of sheep by production data and live appraisal.					P	
• 3. Upon successful completion of the course, student will be able to perform and analyze the success of basic scientific management procedures such as docking, castration, and shearing.					P	
• 4. Upon successful completion of the course, student will be able to evaluate cultural contributions and ethnic influences on the sheep industry.					P	
• 5. Upon successful completion of the course, student will be able to evaluate common diseases and parasites and create recommendations for control.					P	
ANSCB4 - Dairy Production						
• Upon completion the student will be able to: Distinguish between the major dairy cattle breeds, and recall the origin, adaptation and production of each breed.			C			
• Upon completion the student will be able to: Identify the anatomical parts of the cow and relate each part to its form and function.			C			
• Upon completion the student will be able to: Define the nutritional needs and demonstrate proper feeding techniques of dairy cattle.			C			
• Upon completion the student will be able to: Demonstrate proper management skill involving dehorning, vaccinating, castrating, hoof trimming and teat removal of dairy cattle.			C			
ANSCB5 - Swine Production						
• 1. Upon successful completion of the course, the student will be able to evaluate common breeds of swine focusing on their respective economically important strengths.						P
• 2. Upon successful completion of the course, the student will be able to analyze the functions of the anatomical features of swine.						P
• 3. Upon successful completion of the course, the student will be able to analyze the most important swine diseases and parasites as well as the principles of their control including prevention and treatment.						P
• 4. Upon successful completion of the course, the student will be able to evaluate nutrient requirements for various stages of swine production and create feeding programs for them.						P

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ANSCB6 - Applied Animal Nutrition						
• Upon completion the student will be able to:Identify and describe the characteristics of commonly used feed ingredients for diet formulation.	C					P
• Calculate and formulate concentrations & amounts of nutrients in rations and feed mixes.	C					P
• Discuss the impact of feed processing on nutrient utilization by livestock.	C					P
• Read and interpret feed tags and laboratory analyses of diet/feed ingredients.	C					P
• Describe the general changes in nutrient requirements that occur throughout the life-cycle of beef cattle, dairy cattle, and swine.	C					P
ANSCB7 - Animal Diseases						
• 1. Upon successful completion of the course, the student will be able to analyze the differences between passive and active immunity.			C			
• 2. Upon successful completion of the course, the student will be able to evaluate the appropriateness and administer subcutaneous and intramuscular injections.			C			
• 3. Upon successful completion of the course, the student will be able to evaluate and diagnose disease(s), given clinical symptoms.			C			
• 4. Upon successful completion of the course, the student will be able to evaluate bovine pinkeye and create treatment protocols.			C			
• 5. Upon successful completion of the course, the student will be able to analyze the usage of antibiotics in food animal production and debate accordingly.			C			
• 6. Upon successful completion of the course, the student will be able to create a diagram of the lifecycle of 5 common internal parasites.			C			
ANSCB10 - Horse Production						
• 1. Upon successful completion of the course, the student will be able to: Explain the role of the horse in the development of civilization world-wide and the current contributions of the horse to society and identify common breeds of horses and assess and the selection pressures involved in the development of each breed.						P
• 2. Upon successful completion of the course, the student will be able to demonstrate knowledge of common horse parasites, diseases and explain the role of preventive health and vaccination programs						P
• 3. Upon successful completion of the course, the student will be able to demonstrate knowledge of practical equine anatomy, reproduction, digestion and describe practical nutrient requirements for various stages of production in the equine.						P
• 4. Upon successful completion of the course, the student will be able to demonstrate a basic understanding of horse behavior, horse-handling safety while performing routine basic health and grooming tasks.						P
ANSCB11 - Livestock Selection/Evaluation						
• Upon completion the student will be able to:Identify common breeds of livestock.			C			P
• Analyze the process of meat animal growth, development and finishing						P
• Demonstrate how to combine visual subjective evaluation with objective methods of evaluation (production records, etc.).						P
• List traits that cannot be greatly altered through selective breeding including Identification of traits and factors that affect carcass quality and yield grades			C			P
• Define traits needing improvement in a breeding herd and identify traits most economically important.						P
• Describe and compare animals with proper livestock terminology in both oral and written form. (AKA Defend with reasons)						P
• Organize classes of live animals based on economically important traits.			C			P
• Identify external, anatomical features of livestock and anatomical points on the live animal analogous to the areas of the carcass.			C			P
• Identify external, anatomical features of livestock and anatomical points on the live animal analogous to the areas of the carcass.			C			P
ANSCB22 - Animals and Society						
• Upon completion the student will be able to: Demonstrate fundamental concepts linking animals and people in geography.						P
• Describe how these are concepts are manifest in different spaces, places and environments.						P
• Demonstrate skills in problem definition						P
• Interpret and data to determine the impact and interactions between animals and people						P

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ANSCB48WE - Occupational Work Experience Education/Internship						
• Upon completion the student will be able to: Articulate the specific work experience objectives in Animal Science as described by employer and identify the various skills, knowledge and attitudes necessary to the accomplishment of those objectives.						P
• Demonstrate the acquisition of the various skills, knowledge and attitudes necessary to the completion of the work experience objectives in Animal Science and the ability to effectively meet employer's job expectations.						P
• Identify and analyze the application of acquired skills, knowledge and attitudes to career opportunities in Animal Science.						P
ANSCB83 - Introduction to Veterinary Technology						
• Upon completion the student will be able to: Identify anatomical parts and explain their physiology for common large and small animals seen in veterinary practice.			C			
• Explain office management procedures and protocols, including record keeping and customer service. Master resume writing and job interview skills.			C			
• Demonstrate appropriate procedures for receiving and returning patients to clients for discharge, answering common billing and post visit care with client.			C			
• Demonstrate use of appropriate terminology related to assisting the doctor in examinations, procedures, including surgical and emergency situations, and in patient interaction.			C			
• Demonstrate understanding of basic biology, including cell structure and genetic principles, and basic principles of chemistry needed to succeed in a RVT career.			C			
ANSCB84 - Small Animal Diseases						
• Upon completion the student will be able to: Identify normal and abnormal vital statistics for specific animal species. (RPT)						P
• 2. Upon successful completion of the course, the student will describe proper handling and restraint techniques for small animal species.						P
• 3. Upon successful completion of the course, the student will discuss common etiology and clinical evidence of diseases.						P
• 4. Upon successful completion of the course, the student will determine and distinguish appropriate husbandry and prevention programs needed to reduce incidence of diseases.						P
• 5. Upon successful completion of the course, the student will identify zoonotic diseases and specific therapies pertaining to these diseases.						P
• 6. Upon successful completion of the course, the student will communicate and relate with clients regarding post treatment care as determined by the veterinarian.						P
ANSCB85 - Large Animal Diseases						
• Upon completion the student will be able to: Identify normal and abnormal vital statistics for specific large animal species (emphasis on farm animals).			C			
• Describe proper handling and restraint techniques for large animal species.			C			
• Discuss common etiology and clinical evidence of diseases.			C			
• Determine appropriate husbandry, nursing and prevention programs needed to reduce incidence of diseases.			C			
• Identify zoonotic diseases and specific therapies pertaining to those diseases.			C			
• Communicate with clients regarding post treatment care as determined by the veterinarian.			C			
ANSCB86 - Pharmacology for Veterinary Technician						
• Upon completion the student will be able to: Stock pharmaceutical supplies and control their inventories.			C			
• Reconstitute medications and calculate dosages of prescribed medications.			C			
• Package, label and dispense prescription drugs.			C			
• Identify specific pharmaceutical agents.			C			
• Master Intramuscular, Subcutaneous, and Intramuscular methods of administration.			C			

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ANSCB88 - Surgery, Dental, Anesthesiology for Veterinary Technicians						
• 1. Upon successful completion of the course, the student will be able to determine appropriate instrumentation for specific procedures. and identify, prepare, and care for surgical instruments. Ability to analyze surgical process and properly drape animals for surgery.			C			
• 2. Upon successful completion of the course, the student will be able to evaluate surgical and dental procedures and demonstrate knowledge of surgical and dental prophylaxis procedures performable by RVTs. Compare anesthetic agents, instruments, equipment, and monitoring procedures and select appropriate ones for various situations.			C			
• 3. Upon successful completion of the course, the student will be able to provide pain management and post-surgical care. Be able to instruct clients in proper pre and post-surgical care. Close incisions by various methods.			C			
ANSCB90 - Emergency Medicine, Surgery/Nursing Procedures for Veterinary Technicians						
• Upon completion the student will be able to: Differentiate between emergency and non-emergency situations.					P	
• Use triage techniques to properly handle patients.					P	
• Evaluate and provide supportive therapy techniques.					P	
• Compare drugs used in emergency practice, including dosage, routes of administration, and adverse effects.					P	
• Choose appropriate agents.					P	
• Understand surgical and medical techniques.					P	
• Evaluate case situation, determine appropriate action, inform and instruct clients with information relating to post emergency care.					P	
• Calculate dosages for medications and fluid therapy.					P	
ANSCB92 - Clinical Pathology for Veterinary Technicians						
• Upon completion the student will be able to: Identify bacterial and fungal pathogens.			C			
• Identify ectoparasites			C			
• Compare normal and abnormal cells and substances in cytology and urinalysis.			C			
• Examine normal and abnormal blood values.			C			
• Perform routine clinical blood counts and evaluate sample results			C			
• Be able to perform post-mortem exam and evaluate findings.			C			
• Be able to collect, handle, store, and ship samples for laboratory workups.			C			
ANSCB94 - Caged Birds, Laboratory, and Exotic Animal Medicine						
• Upon completion the student will be able to: Compare and contrast normal and abnormal anatomy and physiology.					P	
• Identify and compare various exotic species.					P	
• Demonstrate knowledge of techniques to properly restrain various exotic species.					P	
• Demonstrate knowledge of techniques to perform and evaluate physical exams on various exotic species.					P	
• Explain procedures to collect specimens for laboratory tests from various exotic species.					P	
• Demonstrate knowledge, discernment, and application of laws pertaining to ownership of exotics.					P	
ANSCB96 - Radiology, Ultrasound, and Diagnostic Imaging for Veterinary Technology						
• Upon completion the student will be able to: Analyze knowledge of and ability to apply regulations regarding radiation and radiology safety (including diagnostic imaging).			C			
• Compare and contrast various manual, mechanical, and chemical restraints for diagnostic imaging.			C			
• Evaluate and demonstrate knowledge of procedures to prepare patients for imaging (e.g., radiography and ultrasonography), to safely obtain diagnostic images: to process radiographic film, and to maintain imaging equipment.			C			
• Evaluate radiographs, ultrasound, and electrocardiograms.			C			
• Analyze, discern and apply positioning techniques for properly performing imaging procedures.			C			