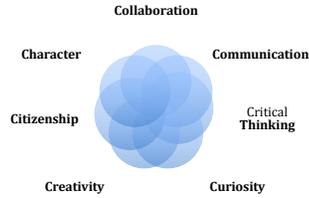


<b>Content Area: Agriscience and Technology</b> <b>DRAFT</b>	Course: Veterinary Assistant Certification Management Year A	<b>Grade Level: 11/12</b>
	<b>R14 The Seven Cs of Learning</b> 	
<b>Unit Titles</b>	<b>Length of Unit</b>	
<ul style="list-style-type: none"> <li>• <i>Introduction to Veterinary Medicine</i></li> </ul>	1 to 2 weeks	
<ul style="list-style-type: none"> <li>• <i>Practice Management</i></li> </ul>	3 to 5 weeks	
<ul style="list-style-type: none"> <li>• <i>Patient Management</i></li> </ul>	3 to 5 weeks	
<ul style="list-style-type: none"> <li>• <i>Normal Animal</i></li> </ul>	3 to 5 weeks	
<ul style="list-style-type: none"> <li>• <i>Animal Nutrition</i></li> </ul>	3 to 5 weeks	
<ul style="list-style-type: none"> <li>• <i>Supervised Agricultural Experience (SAE) Proficiencies</i></li> </ul>	1 to 2 weeks	
<ul style="list-style-type: none"> <li>• <i>Handling &amp; Restraining Animals</i></li> </ul>	3 to 5 weeks	
<ul style="list-style-type: none"> <li>• <i>Assisting with Examinations &amp; Treatments</i></li> </ul>	3 to 5 weeks	
<ul style="list-style-type: none"> <li>• <i>Laboratory Aids &amp; Examinations</i></li> </ul>	3 to 5 weeks	
<ul style="list-style-type: none"> <li>• <i>Production Practices</i></li> </ul>	3 to 5 weeks	
<ul style="list-style-type: none"> <li>• <i>Animal Management During Emergencies</i></li> </ul>	3 to 5 weeks	

Strands	Course Level Expectations
Practice and Patient Management	<ul style="list-style-type: none"> <li>• Design and discuss office procedures, client communications, employee communications, clinic infections disease control, food storage, care of patients, environmental sanitation, bedding &amp; housing for patients, and pain management and recognition.</li> </ul>
Normal Animal Form, Function & Behavior	<ul style="list-style-type: none"> <li>• Recognize animal's normal anatomy, physiology, vital signs, and genetics and be able to recognize deviations from these norms.</li> </ul>
Handling & Restraint	<ul style="list-style-type: none"> <li>• Properly and safely handle and restrain domesticated animals.</li> </ul>
Clinic Skills	<ul style="list-style-type: none"> <li>• Perform physical examinations, apply first aid techniques, apply bandages, handle and administer medications, assist with rehabilitation and perform fecal, blood, urine, bacteriological, radiological, and post-mortem examinations.</li> </ul>

<b>Unit Title</b>	<b>Introduction to Veterinary Medicine</b>	<b>Length of Unit</b>	1 to 2 weeks
<b>Inquiry Questions (Engaging &amp; Debatable)</b>	<ul style="list-style-type: none"> <li>• What is the role a veterinary medicine professional?</li> <li>• What are the potential career opportunities for a veterinary assistant?</li> <li>• Why is it important to consider the role of the companion animal in today's society?</li> </ul>		
<b>Standards*</b>	<p><b>Animal Systems (AS) &amp; Career Ready Practices (CRP):</b>  <b>CRP.10.01.02.a.</b> Examine career clusters and identify potential career opportunities based on personal interests, talents, goals and preferences.  <b>CRP.10.02.</b> Examine career advancement requirements (e.g., education, certification, training, etc.) and create goals for continuous growth in a chosen career.  <b>AS.01.01.02.b.</b> Describe the historical and scientific developments of different animal industries and summarize the products, services and careers associated with each.  <b>AS.02.01.03.b.</b> Analyze and document animal husbandry practices and their impact on animal welfare.</p>		
<b>Unit Strands &amp; Concepts</b>	<p>Study the profession of veterinary medicine, discover the career opportunities of the veterinary assistant, and study the changing relationships between people and animals.  Veterinary medical professions in private, public and industry practices, human/animal relationships, animal rights and animal welfare.</p>		
<b>Key Vocabulary</b>	animal rights, animal welfare, private, public, industry.		

\* The agriculture, food and natural resources (AFNR) industry standards

<b>Unit Title</b>	<b>Introduction to Veterinary Medicine</b>	<b>Length of Unit</b>	1 to 2 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>• the potential career opportunities in the veterinary medical industry.</li> <li>• the potential career opportunities as a veterinary assistant.</li> <li>• the scholastic requirements required for various veterinary medical careers.</li> <li>• the role that animals play in society both historically and today.</li> <li>• the range of viewpoints regarding animal rights and welfare.</li> </ul>	<ul style="list-style-type: none"> <li>• discuss the career opportunities in the field of veterinary medicine.</li> <li>• compare and contrast the role of the veterinary assistant in private, public, and industry practices.</li> <li>• determine the role that the human/animal relationship plays in society.</li> </ul>

<b>Assessments:</b>	<ul style="list-style-type: none"> <li>• Various formative and interim assessments.</li> <li>• Performance Based Activity</li> </ul>
<b>Teacher Resources:</b>	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. (Texas A&amp;M University).</li> <li>❖ Primary and Industry Sources including Advisory Committee Member Input.</li> </ul>

<b>Unit Title</b>	<b>Practice Management</b>	<b>Length of Unit</b>	3 to 5 weeks
<b>Inquiry Questions (Engaging &amp; Debatable)</b>	<ul style="list-style-type: none"> <li>● Why is it important to use efficient and consistent office procedures?</li> <li>● Why are client relations important to the veterinary medical professional?</li> <li>● What role do employee relationships play in a veterinary practice?</li> <li>● What affect does clinic infectious disease control have on patients, clients, and employees in a veterinary practice?</li> <li>● Why is proper food storage important?</li> </ul>		
	<p><b>Agribusiness Systems (ABS), Animal Systems (AS), Food Products and Processing Systems (FPP), &amp; AFNR Cluster Skills (CS):</b></p> <p><b>AS.01.02.03.b.</b> Analyze and evaluate the accuracy and effectiveness of records used in an animal system business.</p> <p><b>ABS.02.04.03.a.</b> Explain the meaning and importance of employee relations, including communication.</p> <p><b>CS.01.02.01.c.</b> Demonstrate human relation skills including compassion, empathy, unselfishness, trustworthiness, reliability and being friendly to co-workers.</p> <p><b>AS.03.01.03.b.</b> Evaluate preventive measures for controlling and limiting the spread of diseases, parasites and disorders among animals.</p> <p><b>FPP.04.03.06.a.</b> Identify and explain storage conditions to preserve product quality.</p>		
<b>Unit Strands &amp; Concepts</b>	Office procedures, client communications, employee communications, clinic infectious disease control, and food storage, proper communication; client/patient/veterinary relationship; infectious disease control; food storage.		
<b>Key Vocabulary</b>	Communication, relationship, infectious, infection, infestation, zoonosis, transmission, prevention		

<b>Unit Title</b>	<b>Practice Management</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>● the importance of using efficient, consistent office procedures.</li> <li>● techniques for diffusing tense or difficult situations.</li> <li>● effects of verbal and non-verbal communication.</li> <li>● prevention and control methods used in clinic disease management.</li> <li>● proper food storage methods.</li> </ul>	<ul style="list-style-type: none"> <li>● design and defend an efficient office procedure.</li> <li>● diffuse tense and difficult situations.</li> <li>● interpret verbal and non-verbal communications and recognize their effects.</li> <li>● explain prevention and control of infectious and parasitic diseases in a veterinary clinic</li> <li>● design and discuss food storage to prevent spoilage and infestations from insects and rodents.</li> </ul>

<b>Assessments:</b>	<ul style="list-style-type: none"> <li>● Various formative and interim assessments.</li> <li>● Performance Activity</li> </ul>
<b>Teacher Resources:</b>	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University.</li> <li>❖ Various Primary and Industry Sources including Advisory Committee Member Input.</li> </ul>

<b>Unit Title</b>	<b>Patient Management</b>	<b>Length of Unit</b>	3 to 5 weeks
<b>Inquiry Questions (Engaging &amp; Debatable)</b>	<ul style="list-style-type: none"> <li>• What are the considerations for techniques and basic necessities regarding patient care?</li> <li>• Why is sanitation important when considering disease prevention and the welfare and recovery of patients?</li> <li>• What role does housing and bedding requirements play on patient recovery?</li> <li>• What role does pain play in the recovery of a patient?</li> </ul>		
<b>Standards</b>	<p><b>Animal Systems (AS),</b>  <b>AS.05.01.01.a.</b> Differentiate between the types of facilities needed to house and produce animal species safely and efficiently  <b>AS.03.01.03.b.</b> Evaluate preventive measures for controlling and limiting the spread of diseases, parasites and disorders among animals.  <b>AS.07.01.01.b.</b> Critique designs for an animal facility and prescribe alternative layouts and adjustments for the safe and efficient use of the facility.</p>		
<b>Unit Strands &amp; Concepts</b>	<p>Caring for patients; environmental sanitation; bedding and housing for patients; and pain recognition. Patient care, sanitation, bedding and housing for patients, and pain recognition and management.</p>		
<b>Key Vocabulary</b>	<p>Patient Care, Environmental Sanitation, bedding, housing, welfare, and pain recognition.</p>		

<b>Unit Title</b>	<b>Patient Management</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content: My students will <b>Know</b>...</b>	<b>Key Skills: My students will be able to <b>(Do)</b>...</b>
<ul style="list-style-type: none"> <li>• importance of patient care.</li> <li>• care techniques for various animal types.</li> <li>• laws regarding patient care.</li> <li>• the importance of sanitation to the welfare and recovery of patients.</li> <li>• legal sanitation requirements.</li> <li>• sanitation techniques.</li> <li>• bedding and housing requirements.</li> <li>• classification of physiological pain.</li> <li>• behavioral signs that indicate pain.</li> <li>• physiological response to pain.</li> <li>• non-chemical procedures to address pain.</li> </ul>	<ul style="list-style-type: none"> <li>• describe the importance of proper patient care.</li> <li>• perform techniques for caring for various types of animals.</li> <li>• discuss importance of sanitation to the welfare and recovery of patients.</li> <li>• perform sanitation techniques used in veterinary practices.</li> <li>• demonstrate importance of proper bedding and housing to patient recovery.</li> <li>• discuss classifications of physiological pain.</li> <li>• recognize signs that indicate pain.</li> <li>• model non-chemical procedures to assist a patient with pain relief.</li> </ul>

	<ul style="list-style-type: none"> <li>• Various formative and interim assessments</li> <li>• Performance Based Activity</li> </ul>
	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University</li> <li>❖ Primary and Industry Sources including Advisory Committee Member Input</li> </ul>

<b>Unit Title</b>	<b>Normal Animal</b>	<b>Length of Unit</b>	3 to 5 weeks
<b>Inquiry Questions (Engaging &amp; Debatable)</b>	<ul style="list-style-type: none"> <li>• How does form dictate function when considering anatomy and physiology of animals?</li> <li>• What role does animal behavior play in the veterinary industry?</li> <li>• Why are vital signs important to a veterinary professional?</li> <li>• What is the significance of age determination for pets and livestock?</li> <li>• What role does genetics play in the veterinary industry?</li> <li>• What can be determined breed characteristics?</li> </ul>		
<b>Standards</b>	<p><b>Animal Systems (AS):</b>  <b>AS.04.01.01.b.</b> Analyze the functions of major organs in the male and female reproductive systems  <b>AS.04.02.01.a.</b> Summarize genetic inheritance in animals.  <b>AS.02.01.02.a.</b> Identify major animal species by common and scientific names.  <b>AS.02.02.06.c.</b> Explain the impact of animal body systems on performance, health, growth and reproduction.  <b>AS.02.02.06.c.</b> Explain the impact of animal body systems on performance, health, growth and reproduction.  <b>AS.02.01.01.b.</b> Explain how animals are classified using Linnaeus’s taxonomical classification system.</p>		
<b>Unit Strands &amp; Concepts</b>	<p>Study comparative anatomy and physiology of animals, genetics and breeds of cats, dogs and livestock. Read and predict animal behaviors in response to stimuli. Monitor vital signs and determine the age of various domesticated animals. Anatomy and physiology; Reading animal behavior; vital signs; genetics; determining the age of animals; breeds of cats and dogs; and breeds of livestock.</p>		
<b>Vocabulary</b>	<p>Anatomy, physiology, integumentary, musculoskeletal, cardiovascular, lymphatic, digestive, respiratory, endocrine, urinary, reproductive, nervous, vitals, classification.</p>		

<b>Unit Title</b>	<b>Normal Animal</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>• anatomy and physiology of integumentary, musculoskeletal, cardiovascular, lymphatic, digestive, respiratory, endocrine, urinary, reproductive, and nervous systems.</li> <li>• the difference between normal and abnormal behavior.</li> <li>• normal ranges of an animal's vital signs.</li> <li>• the role that genetics plays in the veterinary industry.</li> <li>• how to properly determine the age in various domesticated animals.</li> <li>• breeds of companion animals, livestock, and exotic pets.</li> </ul>	<ul style="list-style-type: none"> <li>• identify different anatomical features and describe the physiological functions.</li> <li>• assess animal behavior recognizing abnormal and aggressive behaviors.</li> <li>• properly measure vital signs and recognize normal ranges.</li> <li>• demonstrate methods of age determination for cows, horses, dogs and cats.</li> <li>• identify various breeds of dog, cat, livestock and exotic animals.</li> </ul>

<b>Assessments:</b>	<ul style="list-style-type: none"> <li>• Various formative and interim assessments</li> <li>• Performance Based Activity</li> </ul>
<b>Teacher Resources:</b>	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University</li> <li>❖ Various Primary and Industry Sources including Advisory Committee Member Input</li> </ul>

<b>Unit Title</b>	<b>Animal Nutrition</b>	<b>Length of Unit</b>	3 to 5 weeks
<b>Inquiry Questions (Engaging &amp; Debatable)</b>	<ul style="list-style-type: none"> <li>• Why must all living things consume a balanced diet?</li> <li>• Why do we kill our pets with kindness?</li> <li>• How do forages, concentrates and supplements contribute to productive livestock?</li> </ul>		
<b>Standards</b>	<p><b>Animal Sciences:</b>  <b>AS.03.01.01.c.</b> Assess nutritional needs for an individual animal based on its growth stage and production system.  <b>AS.03.02.02.c.</b> Select and utilize animal feeds based on nutritional requirements, using rations for maximum nutrition and optimal economic production.  <b>AS.03.03.02.b.</b> Analyze and apply information from a feed label and feeding directions to feed animals.</p>		
<b>Unit Strands &amp; Concepts</b>	<p>Understand and interpret nutritional requirements and nutritional management of dogs, cats, exotic pets and livestock.  Essential food nutrients; nutrition and management of dogs, cats and exotic pets; and nutrition and management of livestock.</p>		
<b>Vocabulary</b>	Nutrients, nutrition, supplements, concentrates, forages, stages		

<b>Unit Title</b>	<b>Animal Nutrition</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>● what an essential nutrient is.</li> <li>● what a non-essential nutrient is.</li> <li>● the six classes of nutrients.</li> <li>● the five major nutrients.</li> <li>● nutritional requirements of dogs, cat, livestock and exotics at various life stages.</li> </ul>	<ul style="list-style-type: none"> <li>● recommend appropriate diets for dogs, cats, livestock, and exotics at various life stages.</li> <li>● recognize signs of inappropriate diets and explain the rationale behind the signs.</li> </ul>

<b>Assessments:</b>	<ul style="list-style-type: none"> <li>● Various formative and interim assessments.</li> <li>● Performance Activity: Nutritional Recommendation Project</li> </ul>
<b>Teacher Resources:</b>	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University.</li> <li>❖ Various Primary and Industry Sources including Advisory Committee Member Input.</li> </ul>

Unit Title	SAE Proficiencies	Length of Unit	1 to 2 weeks
<b>Inquiry Questions</b> (Engaging & Debatable)	<ul style="list-style-type: none"> <li>● How does record keeping relate to evaluation of goals?</li> <li>● How does a student quality growth?</li> <li>● How does a student describe and document success?</li> </ul>		
<b>Standards</b>	<p><b>Career Ready Practices (CRP):</b></p> <p><b>CRP.01.</b> Act as a responsible and contributing citizen and employee.</p> <p><b>CRP.01.01.</b> Model personal responsibility in the workplace and community</p> <p><b>CRP.01.02</b> Evaluate and consider the near-term and long-term impacts of personal and professional decisions on employers and community before taking action.</p> <p><b>CRP.01.03.</b> Identify and act upon opportunities for professional and civic service at work and in the community.</p> <p><b>CRP.02.</b> Apply appropriate academic and technical skills.</p> <p><b>CRP.02.01.</b> Use strategic thinking to connect and apply academic learning, knowledge and skills to solve problems in the workplace and community.</p> <p><b>CRP.02.02.</b> Use strategic thinking to connect and apply technical concepts to solve problems in the workplace and community.</p>		
<b>Unit Strands &amp;</b>	<p>Learn the importance of accurate record keeping, personal responsibility, descriptive writing, and goal planning.</p> <p>Record keeping, Descriptive writing, Evaluation of goals and success.</p>		
<b>Vocabulary</b>	<p>Proficiency, financial report, income, expenses, career success, placement, scope, expenditures, gross earnings, net earnings, liabilities, net worth</p>		

	<b>SAE Proficiencies</b>		1 to 2 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>• utilize AET</li> <li>• describe and explain the student's' SAE</li> <li>• calculate hours worked and money earned</li> <li>• list skills and identify growth</li> <li>• calculate gross and net income</li> <li>• evaluate goals</li> </ul>	<ul style="list-style-type: none"> <li>• create a comprehensive PowerPoint presentation</li> <li>• create an expense report and earning report</li> <li>• write descriptive paragraphs</li> <li>• assemble a collage</li> <li>• create a resume</li> <li>• describe and quality success</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Formative and Interim Assessments</b></li> <li>• <b>Summative:</b> Submission of Proficiency Application (National FFA Proficiency Rubric)</li> <li>• <b>Performance Assessment:</b> SAE Presentation</li> </ul>
	❖ <a href="http://www.theaet.com">www.theaet.com</a> and various other primary and industry sources.

<b>Unit Title</b>	<b>Handling &amp; Restraining Animals</b>	<b>Length of Unit</b>	3 to 5 weeks
<b>Inquiry Questions (Engaging &amp; Debatable)</b>	<ul style="list-style-type: none"> <li>• What are the safety purposes of proper restraint?</li> <li>• Do all knots have the same purpose?</li> <li>• How do different fear responses dictate types of appropriate restraint?</li> <li>• How does an animal's ability to inflict injury dictate appropriate restraint techniques?</li> <li>• Are there unique risks involved with restraint among different animal species?</li> </ul>		
<b>Standards</b>	<p><b>Animal Systems (AS) &amp; AFNR Cluster Skills (CS):</b>  <b>AS.02.01.02.b.</b> Analyze and document animal welfare procedures used to ensure safety and maintain low stress when moving and restraining animals.  <b>CS.06.02.01.a.</b> Use proper safety practices/personal protective equipment.  <b>AS.06.01.01.c.</b> Interpret animal behaviors and execute protocols for safe handling of animals.</p>		
<b>Unit Strands &amp; Concepts</b>	<p>Learn and perform proper handling and restraint of various domesticated animal species.  Introduction to handling and restraining animals; common knots; handling and restraining dogs and cats; handling and restraining livestock; and handling and restraining rodents, rabbits and exotic animals.</p>		
<b>Vocabulary</b>	<p>Handling, restraint, fear response, aggression, fight, flight</p>		

<b>Unit Title</b>	<b>Handling &amp; Restraining Animals</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>• The importance of proper restraint.</li> <li>• Common knots utilized in animal restraint.</li> <li>• Different fear responses common to dogs, cats, livestock and exotics.</li> <li>• Tools utilized in the restraint of dogs, cats, livestock and exotics.</li> <li>• The unique risks involved with restraint of a particular species.</li> </ul>	<ul style="list-style-type: none"> <li>• Choose and utilize the appropriate knot for various restraint situations.</li> <li>• Identify the fear response exhibited or likely to be exhibited and choose the appropriate restraint for the situation.</li> <li>• Utilize appropriate handling and restraint procedures and tools for cats, dogs, livestock and exotics.</li> </ul>

	<ul style="list-style-type: none"> <li>• Various formative and interim assessments.</li> <li>• Performance Activity: Handling and Restraint Demonstration</li> </ul>
	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University.</li> <li>❖ Various Primary and Industry Sources including Advisory Committee Member Input.</li> </ul>

Unit Title	Assisting with Examinations & Treatments	Length of Unit	3 to 5 weeks
<b>Inquiry Questions (Engaging &amp; Debatable)</b>	<ul style="list-style-type: none"> <li>• What role does animal history and observation play in the diagnosis process?</li> <li>• Why is it important to know animal first aid?</li> <li>• Why are appropriate doses and route of administration important when considering medicating animals?</li> <li>• Does rehabilitation provide similar benefits to animals as it does to humans?</li> </ul>		
<b>Standards</b>	<p><b>Animal Systems (AS):</b>  <b>AS.03.01.01.b.</b> Perform simple health-check evaluations on animals.  <b>AS.03.01.02.a.</b> Identify common diseases, parasites and physiological disorders that affect animals.  <b>AS.03.01.02.c.</b> Treat common diseases, parasites and physiological disorders of animals.</p>		
<b>Unit Strands &amp; Concepts</b>	<p>Perform physical examinations; first aid; bandage application; properly handle and administer medication; and rehabilitation.  Physical examinations; First Aid; Applying Bandages; Handling and Administering Medications; and Rehabilitation.</p>		
<b>Key Vocabulary</b>	<p>Physical examination, diagnosis, medical history, medical records, first aid, artificial respiration, rehabilitation</p>		

<b>Unit Title</b>	<b>Assisting with Examinations &amp; Treatments</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content: My students will <b>Know</b>...</b>	<b>Key Skills: My students will be able to <b>(Do)</b>...</b>
<ul style="list-style-type: none"> <li>● the importance of physical examination in diagnosis.</li> <li>● common first aid measures used in animals.</li> <li>● types and reasons for using bandages.</li> <li>● different routes to administer medications.</li> <li>● the role that rehabilitation can play in helping an animal recover from an injury.</li> </ul>	<ul style="list-style-type: none"> <li>● demonstrate and describe the physical examination process.</li> <li>● apply topical medications.</li> <li>● appropriately clean and treat cuts, abrasions, and lacerations.</li> <li>● control external bleeding.</li> <li>● appropriately support broken bones.</li> <li>● utilize artificial respiration procedures.</li> <li>● apply bandages.</li> <li>● calculate medicine dosages.</li> <li>● administer medications: SQ, IM, IV, PO, Sublingually, and Intraocular.</li> </ul>

	<ul style="list-style-type: none"> <li>● Various formative and interim assessments.</li> <li>● Performance Activity:</li> </ul>
	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University.</li> <li>❖ Various Primary and Industry Sources including Advisory Committee Member Input.</li> </ul>

Unit Title	Production Practices	Length of Unit	3 to 5 weeks
<b>Inquiry Questions</b> (Engaging & Debatable)	<ul style="list-style-type: none"> <li>● How does veterinary medicine contribute to the safety of our food?</li> <li>● What benefits do dehorning, castrating and docking have on both the animal and the caretaker?</li> <li>● What role do preconditioning, backgrounding, branding, and implants have on shipping livestock?</li> <li>● How has artificial insemination changed the livestock industry?</li> <li>● Why is reproduction and its management vitally important to the livestock industry?</li> </ul>		
<b>Standards</b>	<p><b>Animal Systems (AS):</b></p> <p><b>AS.04.02.01.b.</b> Discuss how feed additives and growth promotants are administered and the precautions that should be taken.</p> <p><b>AS.05.02.01.c.</b> Evaluate and select animals for reproductive readiness</p> <p><b>AS.05.03.05.b.</b> Explain the materials, methods and processes of artificial insemination.</p> <p><b>AS.05.03.04.a.</b> Explain the advantages of major reproductive management practices, including estrous synchronization, superovulation, flushing and embryo transfer.</p> <p><b>AS.06.01.02.c.</b> Implement quality-assurance programs and procedures for animal production.</p> <p><b>AS.06.02.01.b.</b> Discuss consumer concerns with animal production practices relative to human health.</p>		
<b>Unit Strands &amp; Concepts</b>	<p>Management of animals used as a human food source from birth to humane slaughter.</p> <p>Integrated resource management; dehorning, castrating and docking; marketing animals; preparing livestock for shipment; collecting and handling semen; artificial insemination; reproduction and rectal palpation in cattle; assistance at birth; weaning calves; and records and record keeping.</p>		
<b>Vocabulary</b>	<p>Dehorning, castration, docking, artificial insemination, palpation, growth promotant, estrus, flushing embryo transfer.</p>		

<b>Unit Title</b>	<b>Production Practices</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>resources available for the management of a food animal operation.</li> <li>techniques for dehorning, castration, and tail docking.</li> <li>advantages of auction markets, private sales, and order buying.</li> <li>advantages and disadvantages of artificial insemination.</li> <li>signs of breeding soundness in both male and female animals.</li> <li>process of normal parturition and types of dystocia.</li> <li>purpose of weaning and problems that can arise during weaning.</li> </ul>	<ul style="list-style-type: none"> <li>discuss and critique herd health programs.</li> <li>perform dehorning, castration and tail docking.</li> <li>recommend an appropriate process for preparing livestock for shipping.</li> <li>collect and appropriately handle semen.</li> <li>recommend procedures for estrus synchronization and timing artificial insemination for livestock operations.</li> <li>describe or perform pregnancy diagnosis including rectal palpation techniques.</li> <li>assist during parturition including how to handle various types of dystocia.</li> <li>recommend a weaning protocol for a livestock operation including recommendations to avoid or correct common problems see during weaning.</li> </ul>

<b>Assessments:</b>	<ul style="list-style-type: none"> <li>Various formative and interim assessments</li> <li>Performance Based Activity</li> </ul>
<b>Teacher Resources:</b>	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University.</li> <li>❖ Various Primary and Industry Sources including Advisory Committee Member Input.</li> </ul>

Unit Title	Laboratory Aids & Examinations	Length of Unit	3 to 5 weeks
<b>Inquiry Questions</b> (Engaging & Debatable)	<ul style="list-style-type: none"> <li>• Why are fecal samples important to diagnosis?</li> <li>• Blood samples play an important part in diagnostics; How and why is this true?</li> <li>• How does urine play a role in the diagnostics of certain ailments?</li> <li>• What are the benefits and limitations of radiographic examinations?</li> <li>• How do postmortem examinations save lives?</li> </ul>		
	<p>Animal Systems (AS), Biotechnology Systems (BS), &amp; Cluster Skills (CS):</p> <p><b>CS.08.01.01.c.</b> Use tools and equipment appropriately to complete a specific task.</p> <p><b>BS.02.02.01.a.</b> Operate basic laboratory equipment and measurement devices.</p> <p><b>BS.02.03.02.a.</b> Perform procedures with biological materials according to directions.</p> <p><b>BS.02.04.03.a.</b> Maintain a safe environment by properly identifying and disposing of laboratory waste.</p> <p><b>AS.03.01.01.c.</b> Perform diagnostic tests to detect health problems in animals.</p>		
	<p>Fecal, blood and urine examinations; Bacteriologic tests; radiology; postmortem examinations; and special examinations.</p>		
<b>Vocabulary</b>	<p>Fecal sample, direct smear, flotation, blood smear, hemoglobin, urinalysis, bacteriologic test, radiology, postmortem, ultrasonography, thermography, and endoscopy.</p>		

<b>Unit Title</b>	<b>Laboratory Aids &amp; Examinations</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>• why fecal samples are important to diagnostics.</li> <li>• why blood tests are important to diagnostics.</li> <li>• Why urinalysis are important to diagnostics.</li> <li>• What bacteriologic test are.</li> <li>• Safety precautions for radiology and their importance.</li> <li>• The importance of postmortem examinations.</li> <li>• when to use ultrasonography, thermography and endoscopy.</li> </ul>	<ul style="list-style-type: none"> <li>• collect, prepare and perform direct smear, flotation, and gross examination of fecal samples.</li> <li>• collect blood samples.</li> <li>• prepare blood samples for various laboratory tests.</li> <li>• collect, prepare and perform urinalysis.</li> <li>• perform a Gram's stain, culture, and agglutination test.</li> <li>• appropriately determine radiographic settings.</li> <li>• appropriately position an animal for a radiographic examination.</li> <li>• use ultrasonography, thermography and endoscopy.</li> </ul>

<b>Assessments:</b>	<ul style="list-style-type: none"> <li>• Various formative and interim assessments.</li> <li>• Performance Activity:</li> </ul>
<b>Teacher Resources:</b>	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University.</li> <li>❖ Various Primary and Industry Sources including Advisory Committee Member Input.</li> </ul>

<b>Unit Title</b>	<b>Animal Management During Emergencies</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Inquiry Questions (Engaging &amp; Debatable)</b>	<ul style="list-style-type: none"> <li>• What dangers could an animal disease outbreak pose?</li> <li>• How can handling of disease outbreaks alter further spread of disease?</li> </ul>
<b>Standards</b>	<p><b>Animal Systems (AS) and Cluster Skills (CS):</b>  <b>CS.01.01.03.c.</b> Implement an effective project plan.  <b>AS.03.01.03.c.</b> Design and implement a health maintenance and disease and disorder prevention plan for animals in their natural and/or confined environments.  <b>AS.03.01.05.b.</b> Explain the health risk of zoonotic diseases to humans and their historical significance and future implications.  <b>AS.03.02.01.b.</b> Discuss procedures at the local, state and national levels to ensure biosecurity of the animal industry.</p>
<b>Unit Strands &amp; Concepts</b>	<p>Study the routes of natural, accidental, and intentional outbreaks of disease. Plan for and provide recommendations for emergency animal management during disasters. Implement a clinic emergency management plan, natural, accidental, and intentional outbreaks of disease; Emergency animal management during disasters; and clinical emergency management plan.</p>
<b>Key Vocabulary</b>	<p>Endemic, emerging, zoonotic, evacuation, recovery, simulative exercise.</p>

<b>Unit Title</b>	<b>Animal Management During Emergencies</b>	<b>Length of Unit</b>	3 to 5 weeks
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<b>Critical Content:</b> My students will <b>Know</b> ...	<b>Key Skills:</b> My students will be able to <b>(Do)</b> ...
<ul style="list-style-type: none"> <li>• endemic, emerging, zoonotic and foreign animal diseases.</li> <li>• state and local emergency plans for animal disasters.</li> </ul>	<ul style="list-style-type: none"> <li>• recognize potential occurrences of animal disease outbreaks.</li> <li>• perform risk assessment of potential disasters.</li> <li>• create a written plan for evacuation and recovery.</li> <li>• complete a simulative exercise of plan.</li> </ul>

	<ul style="list-style-type: none"> <li>• Various formative and interim assessments.</li> <li>• Performance Activity</li> </ul>
	<ul style="list-style-type: none"> <li>❖ Veterinary Science Teacher-Assisted Curriculum. Texas A&amp;M University.</li> <li>❖ Various Primary and Industry Sources including Advisory Committee Member Input.</li> </ul>