



Veterinary Science Lessons	Knowledge and Skills	Student Expectations	CVA Skill or Competency (TVMA)
<b>LIVESTOCK PRODUCTION</b>			
Veterinary Assistant; Animals & Society (1, 1-1, 1-2, 1-3)	(1) The student learns the employability characteristics of a successful employee	(A) Identify career development and entrepreneurship opportunities in the field of animal systems	Interacts cheerfully with clients and handles complaints with a smile
The Profession of Veterinary Medicine; The Veterinary Assistant; Animals & Society (1, 1-3)		(B) Apply competencies related to resources, information, intrapersonal skills, and system of operations	Interacts cheerfully with clients and handles complaints with a smile
Practice Management (2)		(C) Demonstrates knowledge of personal and occupational safety and health practices in the workplace	Uses common terminology (spoken and written) required in your veterinary practices, Keeps assigned work areas clean and orders, Demonstrates a basic knowledge of sanitary procedures, Handles animals in a safe, humane manner, can name and select the equipment items most commonly used in your veterinary practice, Demonstrates a basic understanding of the most commonly used veterinary drugs, Recognizes the symptoms most commonly associated with animals affected with rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Demonstrates appropriate understanding and respect for the human-animal bond in dealing with clients and their animals
Practice Management (2)		(D) Identify employer's expectations, including appropriate work habits, ethical conduct, legal responsibilities, and good citizenship skills	Demonstrates appropriate understanding and respect for the human-animal bond in dealing with clients and their animals, Interacts cheerfully with clients and handles complaints with a smile, can explain client options for disposal of euthanized or deceased animals, Discuss individual or communal cremation options with owners of deceased pets, Property prepares the deceased animal for presentation to the owner, Exhibits proper decorum when presenting a deceased animal to its owner, Obtains information relative to animal being boarded and/or discharged, Discusses and explains the charge for boarding cost, Posts and records money collected to the appropriate records as directed

Animal & Society (1-3)	(2) The student demonstrates technical skills relating to the interrelated human, scientific, and technological dimensions of animal systems	(A) Assess the importance of the United States impact on world commodity markets	
Genetics; Breeds of Livestock; Nutrition, Management of Livestock (4-4, 4-7, 5-3)	(3) The student performs technical skills related to livestock production	(B) Apply the principles of livestock breeding and nutrition in predicting the impact of current advances in genetics	
Poisonous Plants (11-5)		(C) Examine the interrelationship of plants and animals	
Records & Record Keeping (15-10)		(A) Gather performance data	
<b>ASSISTING WITH EXAMINATIONS &amp; TREATMENTS</b>			
Laboratory Aids & Examinations; Principles & Methods of Disease Control; Sterilization & Disinfection; Assisting with Surgery; Production Practices (7,8,12,13,14,15)		(B) Describe common veterinary procedures and skills	See DIA High School level 1 Skills Validation Checklist
Handling & Restraining Animals (6)		(C) Practice proper animal restraint techniques.	Handles animals in a safe humane manner, Uses the proper procedure for lifting and positionn1 animals, Uses the proper procedure for placin1 animals in a cage, Uses proper method for placin1 large animals in a stall, Uses (or can describe) the proper method of haltering a lorce animal, Practices (or can describe) the proper personal safety precautlous when releasing a large animal, Properly restrains animals when assisting the veterinarian with cephalic and saphenous venous sampling, Properly muzzles froctlous animals, Handles and holds animals so as to generally avoid bites to themselves and to the attending veterinarian, Handles animals in the examination room or are so as to prevent harm to the patient or humans
Determining the Age of Animals; Breeds of Doe & Cats; Breeds of Livestock (4-5,4-6,4-7)		(D) Demonstrate identification techniques	uses common terminology (spoken or written) required In your veterinary practice, Recognizes the symptoms commonly associated with animals affected by rabies, Recognizes common breeds and varieties of exotic animals that visit the chn1c and calls them by the correct common name
Anatomy & Physiology of Animals (4-1)	(4) The student explains anatomy and physiology related to nutrition, reproduction, health and treatment of animals	A) Explain the skeletal, muscular, respiratory, reproductive, and circulatory systems of animals	

Reading Animal Behavior; Vital Signs (4-2)		(B) Evaluate vital signs and behavior	Carefully observe animal and surroundings and observe attending veterinarian, Recognizes the symptoms commonly associated with animals affects by rabies, Recognizes common breeds and varieties of exotic animals that visit the clinic and calls them by the correct common name
Anatomy & Physiology of Animals (4-1)		(A) Describe the digestive system	
Essential Food Nutrients, Nutrient & Management of Livestock (5-1, 5-3)	(5) The student determines nutritional requirements of plants and non-ruminant animals including poultry	(B) Identify sources of nutrients and classes of feed	Stores animal feeds according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Reports animal food and water consumption rates correctly and on schedule
Essential Food Nutrients (5-1)		(C) Identify vitamins, minerals, and feed	Stores animal feeds according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Reports animal food and water consumption rates correctly and on schedule
Animal Nutrition (5)		(D) Formulate rations	Stores animal feeds according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Reports animal food and water consumption rates correctly and on schedule
Nutritional Diseases		(E) Discuss feeding practices and feed quality	Stores animal feeds according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Reports animal food and water consumption rates correctly and on schedule
<b>ANATOMY, PHYSIOLOGY, &amp; REPRODUCTION</b>			
Anatomy & Physiology of Animals (4-1), (4-4)	(6) The student explains animal genetics and reproduction	(A) Describe the reproductive system	
Anatomy & Physiology of Animals (4-1), (4-4)		(B) Explain the use of genetics in animal breeding	

Collecting & Handling & Semen; Artificial Insemination; Reproduction & Rectal Palpation in Cattle (15-5, 15-6, 15-7)		(C) Identify systems of animal breeding	
Collecting & Handling Semen; Artificial Insemination ;Reproduction Rectal Palpation in Cattle; Assistance at Birth- Clinical; Weaning Calves (15-5, 15-6, 15-7, 15-B, 15-9)		(D) Research current and emerging technologies in animal reproduction	
<b>INFECTIOUS DISEASES</b>			
Animal Health; Infectious Diseases; Non-Infectious Diseases (9, 10, 11)	(7) The student identifies animal pets and diseases.	(A) Describe the role of bacteria, fungi, viruses, genetics, and nutrition in disease	Recognizes the symptoms commonly associated with animals affected by rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Handles and disposes of "sharps" instruments safely and in compliance with practice standards, Handles and uses disposable" sharps" containers in a safe manner, Follows OSHA guidelines in collecting and disposing of biohazardous materials, Dispose of used bedding materials as needed and in a proper manner, Uses proper sanitary procedures in changing & bedding materials, Follows a proscribed procedure for cleaning all stainless steel instruments, Follows correct procedure for ultra-sonic cleaning of instruments, Lubricates instruments properly during the cleaning process, Maintains all dental equipment in clean and usable condition for performing prophylaxis treatments, Ensures that all sharp and cutting blades are removed and disposed of properly following & surgical procedures, Stores animal feed according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Properly disposes of syringes, needles and other sharp objects commonly used in the veterinary clinic, Properly Identifies and disposes of expired

Principles & Methods of Disease Control (12)		(B) Identify methods of disease control, prevention, and treatment .	Uses procedures that ensure personal safety when handling animals suspected of having rabies, Handles and disposes of " sharps" instruments safely and in compliance with practice standards, Handles and uses disposable" sharps" containers in a safe manner, Follows OSHA guidelines in collecting and disposing of biohazardous materials, Dispose of used bedding materials as needed and in a proper manner, Uses proper sanitary procedures in changing bedding materials, Follows a proscribed procedure for cleaning all stainless steel instruments, Follows correct procedure for ultra-sonic cleaning of instruments, Lubricates instruments properly during the cleaning process, Maintains all dental equipment in clean and usable condition for performing prophylaxis treatments, Ensures that all sharp and cutting blades are removed and disposed of properly following surgical procedures, Stores animal feed according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Properly disposes of syringes, needles and other sharp objects commonly used in the veterinary clinic, Property Identifies and disposes of expired substances
<b>ECONOMICS &amp; MARKETING</b>			
Marketing Animals (15-3)	(8) The student knows the factors impacting commodity prices and costs	(A) Evaluate the relationship between commodity and markets .	
Animal Nutrition (5)		(B) Formulate rations based on least-cost factors.	Measures food quality accurately, Reads and follows food label directions correctly, Reads and follows written instructions for animal feeding
Genetics; Essential Food Nutrients (4-4, 5-1)		(C) Design and conduct experiments to support known principles of genetics and feed efficiency	Measures food quality accurately, Reads and follows food label directions correctly, Reads and follows written instructions for animal feeding
Records & Record Keeping (15-10)	(9) The student develops an improved supervised culture experience program as it relates to agriculture, food, and natural resources	(B) Apply proper record keeping skills as they relate to a supervised experience	
Records & Record Keeping (15-10)		(C) Observe and use a customized record-keeping system for the individual supervised	

SMALL ANIMAL MANAGEMENT			
Animals & Society (1-3)	(1) The student describes the importance of responsible animal ownership	(A) Explain the domestication and use of small animals	
Animals & Society (1-3)		(B) Identify the influence small animals have on society	
Animals & Society (1-3)		(C) Describe the importance of small animal industry	
Animals & Society (1-3)		(D) Describe the obligations and benefits of small animal ownership	
Introduction to Handling & Restraining Animals (6-1)	(2) The student learns the hazards associated with working in the small animal industry	(E) Discuss the use and services provided by small animals	Handles animals in a safe humane manner, Uses the proper procedure for lifting and positioning animals, Uses the proper procedure for placing animals in a cage
DISEASES COMMON TO HUMANS & ANIMALS			
Food & Animal Diseases (9-3, 9-4)		(B) Identify diseases that can be transmitted from small animals to humans	Recognizes the symptoms commonly associated with animals affected by rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Handles and disposes of sharps instruments safely and in compliance with practice
Prevention (12-1)		(C) Describe methods of preventing the spread of disease	Recognizes the symptoms commonly associated with animals affected by rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Handles and disposes of "sharps" instruments safely and in compliance with practice standards, Handles and uses disposable "sharps" containers in a safe manner, Follows OSHA guidelines in collecting and disposing of bi hazardous materials, Dispose of used bedding materials as needed and in a proper manner, Uses proper sanitary procedures in changing bedding materials, Follows a proscribed procedure for cleaning all stainless steel instruments, Follows correct procedure for ultra-sonic cleaning of instruments, Lubricates Instruments properly during the cleaning process, Maintains all dental equipment in clean and usable condition for performing prophylaxis treatments, ensures that all sharp and cutting blades are removed and disposed of properly following surgical procedures, Stores animal feed according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding. Properly disposes of syringes, needles, and other sharp objects commonly used in the veterinary clinic, Properly identifies and disposes of expired substances
Introduction to Handling & Restraining Animals; Handling & Restraining Dogs & Cats, Handling & Administering Medications-Clinical (6-1, 6-3, 6-4, 6-5)		(D) Follow guidelines for safety when handling dangerous chemicals and when working with small animals	Demonstrate a basic understanding of the most commonly used veterinary drugs. Describe (or demonstrates) the proper method for administration of a bolus, paste or topical drug for a bovine patient. Describes (or demonstrates) the proper method for administration of tablets, capsules, liquid, and topical drugs for canine and feline patients.
Laboratory Aids & Examination (8-1)		(E) Demonstrate the proper use of laboratory equipment	Handles and disposes of "sharps" instruments safely and in compliance with practice standards, Demonstrates (or describes) the proper method of moving cattle through chutes and into or out of stalls, Handles and uses disposable "sharps" containers in a safe manner, Follows OSHA guidelines in collecting and disposing of bio-hazardous materials, Demonstrates (or describes) the proper method of collecting fecal samples (including the palpation sleeve) in the large animal

			al, Correctly uses shielded gowns, gloves, and other protective wear when taking radiographs, Wears a monitoring device when taking radiographs, Follows accepted procedures when bathing or dipping patients, Properly uses (or describes the proper use of) common devices and equipment to restrain horses, cattle, goats and swine for treatment, Autoclaves veterinary Instruments using moist pressure autoclave and chemical sterilization, Describes (or demonstrates) the proper method for administration of a bolus , paste or topical drug for a bovine patient, Describes (or demonstrates) the proper method for administration of tablets, capsules, liquid and topical drugs for canine and feline patients, Administers hydrotherapy according to directions, Selects the correct syringe demand from the veterinarian, Recognizes intravenous, intramuscular, subcutaneous, and intraperitoneal applications, Correctly fills syringes with medication as directed, Selects correctly the needle gauge and length requested by the veterinarian, Properly disposes of syringes needles and other sharp objects commonly used in the veterinary clinic
<b>ANIMAL RIGHTS &amp; WELFARE</b>			
Animal Welfare Regulations (16-131)	(3) The student evaluates current topics in animal rights and animal welfare	(A) Compare and contrast animal rights and welfare	
Animal Welfare Regulations (16-131)		(B) Research important persons, organizations, and groups involved in animal rights	
Animal Welfare Regulations (16-131)		(D) Analyze current issues in animal rights and animal welfare	
Breeds of Dogs & Cats, Breeds of Livestock (4-6, 4-7)	(4) The student knows the care and management requirements for a variety of small animals	(A) Discuss the physical characteristics for each species studied	Recognize common breeds and varieties of exotic animals the visit the clinic
Breeds of Dogs & Cats, Breeds of Livestock (4-6, 4-7)		(B) List the breeds or types of each species studied	Recognize common breeds and varieties of exotic animals the visit the clinic
Bedding & Housing for Patients-Clinical (3-3)		(C) Discuss the habitat, housing, and equipment needs for each species studied	Uses the proper procedure for lifting and positioning animals, Uses the proper procedure for placing animals in a cage, Uses the proper procedure for placing large animals in a stall, Uses (or can describe) the proper procedure of haltering a large animal, Demonstrates (or can describe) the proper method of moving cattle and horses through chutes and into or out of stalls, Safely cares for animals in runs, cages, stalls and paddocks, Uses the bedding types indicated for specific breeds/species of housed animals, Recognizes and avoids safety hazard in the areas where patients are housed
Principles & Methods of Disease Control (12)		(E) Explain health maintenance in each species studied, including the prevention and control of diseases and parasites	Recognizes the symptoms commonly associated with animals affected by rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Handles and disposes of "sharps" Instruments safely and in compliance with practice standards, Handles and uses disposable "sharps" containers in a safe manner, Follows OSHA guidelines in collecting and disposing of bio-hazardous materials, Dispose of used bedding materials as needed and in a proper manner, Uses proper sanitary procedures in changing bedding materials, Follows a proscribed procedure for cleaning all stainless steel instruments, Follows correct procedure for ultra-sonic cleaning of instruments, Lubricates instruments properly during the cleanin1 process, Maintains all dental equipment in clean and usable condition for performing prophylaxis treatments,

			Ensures that all sharp and cutting blades are removed and disposed of properly following surgical procedures, Stores animal feed according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Properly disposes of syringes, needles and other sharp objects commonly used in the veterinary clinic, Properly identifies and disposes of expired substances
Introduction to Handling & Restraint in Animals (6-1)		(F) Describe and practice common methods of handling each species studied	Handle animals In a safe, humane manner, Uses the proper procedure for lifting and positioning animals, Uses the proper procedure for placing animals in a cage, Uses proper method for placing large animals in a stall, Uses (or can describe) the proper method of haltering a large animal, Handles and holds animals so as to generally avoid bites to themselves and to the attending veterinarian, Handles animals In the examination room or area so as to prevent harm to the patient and humans, Aids the veterinarian In the handling and treatment of patients, Bathes and dips patients as instructed, Avoids basic hazards and species susceptibilities to certain bath and dip products when preparing and giving dips and baths, Follows accepted procedures when bathing or dipping patients, safely handles and restrains exotic animals for examination and treatment, Describes (or demonstrates) the proper method for administration of a paste or topical drug on an equine patient, Describes (or demonstrates) the proper method for administration of a bolus, paste or topical drug for a bovine patient, Describes (or demonstrates) the proper method for administration of tablets, capsules, liquid and topical drugs for canine and feline patients
Fecal, Blood, & Urine Examinations		(G) Use available laboratory equipment to perform procedures such as fecal test, blood testing, and basic grooming procedures	Demonstrates (or explains) the proper method of collecting fecal samples (including the palpation sleeve). In the large animal, Uses correct quantities of feces for fecal flotations, Recognizes fresh fecal samples
Bacteriologic Tests (8-1, 8-2)			
<b>THE PROFESSION OF VETERINARY MEDICINE</b>			
The Veterinary Assistant; Animals & Society (1-1,1-2,1-3)	(5) The student examines career opportunities in small animal care	(A) Identify, describe, and compare career opportunities in small animal care management	
The Veterinary Assistant; Animals & Society (1-1,1-2,1-3)		(B) Describe the nature of the work, salaries, and educational requirements for careers in small animal care.	
The Veterinary Assistant; Animals & Society (1-1,1-2,1-3)	(6) The student learns the employability characteristics of a successful employee	(A) Identify career development and entrepreneurship opportunities in the field of agricultural enterprises	
Office Procedures Clinical, Client Communications-Clinical; Employee Communications-Clinical (2-1,2-2, 2-3)		(B) Apply competencies related to resources, information, intrapersonal skills, and system of operations in special agricultural enterprises	Interacts cheerfully with clients and handles complains with a smile
Clinic Infectious Disease Control; Clinical; Storage of Foods-Clinical (2-4, 2-5)		(C) Demonstrate knowledge of personal and occupational safety and health practices In the work place.	Interacts cheerfully with clients and handles complaints with a smile, Uses common terminology (spoken and written) required in your veterinary practices, Keeps assigned work areas clean and orders, Demonstrates a basic knowledge of sanitary procedures, Handles animals In a safe, humane manner, can name and select the equipment Items most commonly used in your veterinary practice, Demonstrates a basic understanding of the most commonly used veterinary drugs, Recognizes the symptoms most commonly associated with animals affected with rabies, Uses procedures that ensure personal safety when handling animals suspected of havIn1 rabies, Demonstrates

			appropriate understanding and respect for the human-animal bond In dealing with clients and their animals
Office procedures; Clinical; Client Communications; Clinical; Employee Communications-Clinical (2-1, 2-2, 2-3)		(D) Identify employer's expectations, including appropriate work habits, ethical conduct, legal responsibilities, and good citizenship skills.	Demonstrates appropriate understanding and respect for the human-animal bond In dealing with clients and their animals, Interacts cheerfully with clients and handles complaints with a smile, can explain client options for disposal of euthanized or deceases animals, Discuss individual or communal cremation options with owners of deceased pets, Properly prepares the deceases animal for presentation to the owner, Exhibits proper communication when presenting a deceases animal to its owner, Obtains Information relative to animal being boarded and/or discharged, Discusses and explains the charge for boardin1 cost, Posts and records money collected to the appropriate records as directed
<b>EQUINE SCIENCE</b>			
Essential Food Nutrients ; Nutrient & Management of Livestock (5-1, 5-3)	(2) The student knows how to provide proper nutrition using accepted protocols and processes to maintain animal performance	(A) Determine nutritional requirements of horses	Measures food quality accurately, Reads and follows food label directions correctly, Reads and follows written instructions for animal
		(B) Describe the anatomy and physiology of horses	Recognizes common breeds and varieties of exotic animals that visit the clinic and calls them by the correct common name
Anatomy & Physiology of Animals; Breeds of Livestock (4-1, 4-7)		(C) Explain methods of maintaining horse health and soundness.	
Bedding & Housing for Patients-Clinical (3-3)	(3) The student analyzes equine science as it relates to the management of horse	(A) Select equipment and facilities of horses	
Handling & Restraining Livestock (6-4)		(B) Demonstrate methods of handling horse safety	Uses the proper procedure for placing large animals In a stall, Uses (or can describe) the proper procedure of haltering a large animal, Demonstrates (or can describe) the proper method of moving cattle and horses through chutes and into or out of stalls, Safely cares for animals in runs, cages, stalls and paddocks
Genetics; Breeds of Livestock; Collecting & Handling Semen; Artificial Insemination (4-4, 4-7, 15-5, 15-6)		(C) Identify the procedures for breeding horses .	
Welfare Regulations	(4) The student compares and contrasts issues affecting the equine industry		
The Profession of Veterinary Medicine; The Veterinary Assistant (1-1, 1-2)	(5) The student learns the employability characteristics of a successful employee.	(A) Identify career development and entrepreneurship opportunities in the field of equine science	
Office Procedures-Clinical; Client Communications-Clinical; Employee Communications -Clinical (2-1, 2-2, 2-3)		(B) Demonstrate competencies relates to resources, information, interpersonal skills, and systems of operations in equine science	Interacts cheerfully with clients and handles complaints with a smile
Practice Management (2-1)		(C) Demonstrate knowledge of personal and occupation, safety, and health practices in the workplace	Uses common terminology (spoken and written) required in your veterinary practices, Keeps assigned work areas clean and orders, Demonstrates a basic knowledge of sanitary procedures, Handles animals in a safe, humane manner, can name and select the equipment Items most commonly used in your veterinary practice, Demonstrates a basic understanding of the most commonly used veterinary drugs, Recognizes the symptoms most commonly associated with animals affected with rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Demonstrates appropriate understanding and respect for the human-animal bond In dealing with clients and their animals

Office Procedures-Clinical; Client Communications-Clinical; Employee Communications-Clinical (2-1, 2-2, 2-3)		(D) Identify employers' expectations, including appropriate work habits, ethical conduct, legal responsibilities, and good citizenship skills.	Demonstrates appropriate understanding and respect for the human-animal bond in dealing with clients and their animals, Interacts cheerfully with clients and handles complaints with a smile, can explain client options for disposal of euthanized or deceased animals, Discuss individual or communal cremation options with owners of deceased pets, Properly prepares the deceased animal for presentation to the owner, Exhibits proper decorum when presenting a deceased animal to its owner, Obtains information relative to animal being boarded and/or discharged, Discusses and explains the charge for boarding cost, Posts and records money collected to the appropriate records as directed
<b>ADVANCED ANIMAL SCIENCE</b>			
The Profession of Veterinary Medicine; The Veterinary Assistant (1-1, 1-2)	(4) The student evaluates the employability characteristics of an employee	(A) Identify career development and entrepreneurship opportunities in the field of animal systems	
Office Procedures--Clinical; Client Communications-Clinical; Employee Communications-Clinical (2-1, 2-2, 2-3)		(B) Apply competencies, resources, information, interpersonal skills, and systems of operation in animal systems	Interacts cheerfully with clients and handles complaints with a smile
Practice Management (2)		(C) Demonstrate knowledge of personal and occupational safety and health practices in the work place.	Interacts cheerfully with clients and handles complaints with a smile, Uses common terminology (spoken and written) required in your veterinary practices, Keeps assigned work areas clean and orders, Demonstrates a basic knowledge of sanitary procedures, Handles animals in a safe, humane manner, can name and select the equipment items most commonly used in your veterinary practice, Demonstrates a basic understanding of the most commonly used veterinary drugs, Recognizes the symptoms most commonly associated with animals affected with rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Demonstrates appropriate understanding and respect for the human-animal bond in dealing with clients and their animals
Office Procedures; Clinical; Client Communications-Clinical; Employee Communications-Clinical (2-1, 2-2, 2-3)		(D) Identify employers' expectations, including appropriate work habits, ethical conduct, legal responsibilities, and good citizenship skills.	Demonstrates appropriate understanding and respect for the human-animal bond In dealing with clients and their animals, Interacts cheerfully with clients and handles complaints with a smile, can explain client options for disposal of euthanized or deceased animals, Discuss individual or communal cremation options with owners of deceased pets, Properly prepares the deceased animal for presentation to the owner, Exhibits proper decorum when presenting a deceased animal to its owner, Obtains information relative to animals being boarded and/or discharged, Discusses and explains the charge for boarding cost, Posts and records money collected to the appropriate records as directed
Food & Animal Diseases (9-4)	(5) The student demonstrates principles relating to the human, scientific, and technological dimensions of scientific animal agriculture and the resources necessary for producing domesticated animals	(B) Identify animal products and consumption patterns relative to human diets and human health issues.	

Animals & Society (1-3)		(C) Describe the growth and development of livestock as a global community	
Anatomy & Physiology of Animals; Artificial Insemination; Reproduction & Rectal Palpation in Cattle (4-1, 4-4, 15-6, 15-7)	(6) The student applies the principles of reproduction and breeding to livestock improvement	(A) Describe reproductive cycles and relate them to breeding systems	
Genetics; Collecting & Handling Semen; Artificial Insemination; Reproduction & Rectal Palpation In Cattle (4-4, 15-5, 15-6, 15-7)		(B) Explain the embryo transfer process and how it can impact the livestock industries	
Genetics		(C) Recognize the significance of meiosis to sexual reproduction	
		(D) Evaluate animal behavior and its relationship to livestock management.	
Reading Animal Behavior (4-2) Genetics (4-4)	(7) The student applies the principles of molecular genetics and heredity	(A) Explain Mendel's laws of inheritance by predicting genotypes and phenotypes of offspring using the Punnett square	
Genetics (4-4)		(B) Explain the inheritance of sex-linked characteristics and provide some examples	
Genetics (4-4)		(C) Identify and compare the three parts of nucleic acids.	
Anatomy & Physiology of Animals (4-1)	(8) The student examines and compares animal anatomy and physiology in livestock species	(E) Explain how traits are passed from parent to offspring & through genetic transfer and the implications of breeding practices	Recognizes common breeds and varieties of exotic animals the visit clinic and calls them by the correct common name
Anatomy & Physiology of Animals (4-1)		(A) Identify and compare the external anatomy of a variety of livestock species	Recognizes common breeds and varieties of exotic animals the visit clinic and calls them by the correct common name
Anatomy & Physiology of Animals (4-1)		(B) Compare the anatomy and physiology of the skeletal, muscular, reproductive, digestive, circulatory, gastrointestinal, urinary, respiratory, nervous, and endocrine system	
Anatomy & Physiology of Animals (4-1)		(C) Describe interactions among various body systems such as circulatory, respiratory, and muscular system	
Anatomy & Physiology of Animals (4-1)		(D) Identify and describe the functions of epithelial, connective, and muscular tissue and relate these to animal body systems	
Animal Nutrition (5)	(9) The student determines nutritional requirements of ruminants and non-ruminants	(B) Identify and describe sources of nutrients and classes of feeds and relate to the nutritional requirements of ruminant and non-ruminant animals	Measures food quantities accurately, Reads and follows the label directions correctly, Reads and correctly follows written instructions for animal feeding
Animal Nutrition (5)		(C) Identify and describe vitamins, minerals, and feed additives and how they relate to the nutritional requirements of ruminant and non-ruminant animals	Measures food quantities accurately, Reads and follows the label directions correctly, Reads and correctly follows written instructions for animal feeding
Animal Nutrition (5)		(D) Formulate rations based on different nutritional requirements	Measures food quantities accurately, Reads and follows the label directions correctly, Reads and correctly follows written instructions for animal feeding
Animal Nutrition (5)		(E) Analyze feeding practices in relation to nutritional requirements of animals	Measures food quantities accurately, Reads and follows the label directions correctly, Reads and correctly follows written instructions for animal feeding

Nutritional Diseases (11-1)		(F) Analyze feed quality issues and determine their effect on animal health .	Stores animal feeds according to Instructions, Measures food quantities accurately, Reads and follows the label directions correctly, Reads and correctly follows written instructions for animal feeding
Genetics & Disease; The Battle Against Disease; Diseases Common to Humans & Animals; Food & Animal Diseases (9-1, 9-2, 9-3, 9-4)	(10) The student evaluates animal diseases and parasites.	(A) Identify factors that influence the health of animals, such as geographic location, genetic composition, and inherited diseases to a particular species	
Genetics & Disease (9-1)		(B) Identify the pathogens and describe the effects that diseases have on various body systems	
Prevention; Treatment; Controlling Internal Parasites; Controlling External Parasites (12-1, 12-2, 12-3, 12-4)		(C) Explain the methods of prevention, control, and treatment for diseases	Recognizes the symptoms commonly associated with animals affected by rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Handles and disposes of "sharps" instruments safely and in compliance with practice standards, Handles and uses disposable "sharps" containers in a safe manner , Follows OSHA guidelines in collecting and disposing of biohazardous materials, Dispose of used bedding materials as needed and in a proper manner, Uses proper sanitary procedures in changing bedding materials, Follows a proscribed procedure for cleaning all stainless steel instruments, Follows correct procedure for ultrasonic cleaning of instruments, Lubricates instruments properly during the cleaning process, Maintains all dental equipment in clean and usable condition for performing prophylaxis treatments, Ensures that all sharp and cutting blades are removed and disposed of properly following surgical procedures, Stores animal feed according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Properly disposes of syringes, needles and other sharp objects commonly used in the veterinary clinic, Properly identifies and disposes of expired substances
Genetics & Disease; The Battle Against Disease; Diseases Common to Humans & Animals; Food & Animal Diseases; Infectious Diseases (9-1, 9-2, 9-3, 9-4, 10)		(D) Describe the process of immunity and disease transmission	
Controlling Internal Parasites; Controlling External Parasites (12-3, 12-4)		(E) Explain how parasites are transmitted and the effect they have on the host	
Controlling Internal Parasites; Controlling External Parasites (12-3, 12-4)		(F) Explain the methods of prevention, control, and treatment of internal and external parasites	
Controlling Internal Parasites; Controlling External Parasites (12-3, 12-4)		(G) Describe the life cycles of various parasites and relate them to animal health issues	
Anatomy & Physiology of Animals (4-1)	(11) The student defines how an organism grows and how specialized cells, tissues, and organs develop	(A) Compare cells from different parts of animals, including epithelia, muscles, and to show specialization of structure function	

Anatomy & Physiology of Animals (4-1)		(B) Describe and explain cell differentiation in the development of organisms	
Anatomy & Physiology of Animals (4-1)		(C) Sequence the levels of organization in animals and relate the parts to each other and to the whole	
Genetics; Collecting & Handling Semen; Artificial Insemination (4-4, 15-5, 15-6)	(12) The student recognizes policies and issues in animal science	(A) Discuss the impacts of biotechnology in the production of livestock such as cloning, artificial insemination, and freezing of semen and embryo	
Animals & Society; Animal Welfare Regulations (1-3, 16-13)		(B) Analyze the issues surrounding animal welfare and the humane treatment of livestock	
Animal Nutrition (5)		(C) Apply principles of nutrition to maximize feed efficiency for livestock.	Stores animal feeds according to instructions, Measures food quantities accurately, Reads and follows food label directions correctly, Reads and correctly follows written instructions for animal feeding, Reports animal food and water consumption rates correctly and on schedule
Anatomy & Physiology of Animals; Marketing Animals (4-1, 15-3)	(13) The student discusses livestock harvesting operations	(A) Map the stages of animal growth and development as it relates to market readiness	
Marketing Animals; Preparing Livestock for Shipment (15-3, 15-4)		(B) Describe the harvesting process	
Marketing Animals; Food Safety Program (15-3, 16-1)		(C) Describe federal and state meat inspection standards such as safety, hygiene, and quality control	
Marketing Animals (15-3)	(14) The student explores methods of marketing livestock	(A) Compare various methods of marketing livestock	
Marketing Animals (15-3)		(B) Describe methods of marketing meat and meat products	
<b>PRINCIPLES OF AGRICULTURE, FOOD, AND NATURAL RESOURCES</b>			
The Profession of Veterinary Medicine; The Veterinary Assistant; Animals & Society (1-1, 1-2, 1-3)	(1) The student learns the employability characteristics of a successful employee	(A) Identify career development and entrepreneurship opportunities in the field of agriculture, food, and natural resources, including how to search for and obtain employment, what qualifications are required for varying career fields, and how to advance in a position	
The Profession of Veterinary Medicine; The Veterinary Assistant; Animals & Society (1-1, 1-2, 1-3)		(B) Identify careers in agriculture, food, and natural resources with required aptitudes in science, mathematics, language arts, and social studies	
Practice Management (2)		(C) Apply competencies related to resources, information, interpersonal skills, problem solving, critical thinking, and systems of operation in agriculture, food, and natural resources	Interacts cheerfully with clients and handles complaints with smile
Practice Management (2)		(D) Demonstrate knowledge of personal and occupational safety, health, and first-aid policy in the workplace	Interacts cheerfully with clients and handles complaints with smile, Uses common terminology (spoken and written) required in your veterinary practices, Keeps assigned work areas clean and orders, Demonstrates a basic knowledge of sanitary procedures, Handles animals in a nice, humane

			manner, can name and select the equipment items most commonly used in your veterinary practice, Demonstrates a basic understanding of the most commonly used veterinary drugs, Recognizes the symptoms most commonly associated with animals affected with rabies, Uses procedures that ensure personal safety when handling animals suspected of having rabies, Demonstrates appropriate understanding and respect for the human-animal bond In dealing with clients and their animals
Emergency Animal Management		(E) Develop response plans to emergency situations	
Disasters (17-2); Practice Management (2)		(F) Identify employer's expectations, including appropriate work habits, ethical conduct, legal responsibilities, and good citizenship skills	Demonstrates appropriate understanding and respect for the human-animal bond In dealing with clients and their animals, Interacts cheerfully with clients and handles complaints with a smile, can explain client options for disposal of euthanized or deceased animals, Discuss individual or communal cremation options with owners of deceased pets, Properly prepares the deceased animal for presentation to the owner, Exhibits proper decorum when presenting a deceased animal to its owner, Obtains Information relative to animal being boarded and/or discharged, Discusses and explains the charge for boarding cost, Posts and records money collected to the appropriate records as directed
Records & Record Keeping (15-10)		(A) Apply proper record keeping skills as they relate to a supervised experience	
Records & Record Keeping (15-10)		(B) Design and use a customized record-keeping system for the Individual; supervised agriculture experience	
Animal & Society (1-3)	(2) The student describes the historical, current, and future significance of the agriculture industry	(C) Identify the scope of agriculture and Its effects upon society	
Poisonous Plants (11-5)	(1) The student develops technical knowledge and skills related to plant systems.	(D) Identify plants of importance to agriculture, food, and natural resources	
Genetics (4-4)	(2) The student develops technical knowledge and skills related to animal systems.	(A) Describe animal growth and development	
Anatomy & Physiology of Animals (4-1)		(B) Identify animal anatomy and physiology	
Breeds of Livestock (4-7)	(3) Recognize common breeds and varieties of exotic animals that visit the clinic	(C) Identify breeds and classes of livestock	
Genetics; Collecting & Handling Semen; Artificial Insemination; Reproduction & Rectal Palpation In cattle (4-4, 15-5, 15-6, 15-7)		D) Discuss animal selection, reproduction, breeding and genetics	
Assisting with Examinations & Treatments; Laboratory Aids & Examination; Medical Waste Disposal; Laws Related to Veterinary Medicine (7, 8, 16-14, 16-16)	(4) The student safely performs basic power, structural, technical system skills In agricultural applications	(A) Understand safe and appropriate laboratory procedures and policies	Can name and select the equipment items most commonly used in veterinary practices, Handles and disposes of "sharps" instruments safely and in compliance with practice standards, Handles and uses disposable "sharps" containers in a safe manner, Demonstrates (or explains) the proper method of collecting fecal samples (including the palpation sleeve) in the large animal, Correctly uses shielded gowns, gloves, and other protective wear when taking radiographs,

			Wears a monitoring device while taking radiographs, Follows a procedure for cleaning all stainless instruments, Selects the correct syringe on demand from the veterinarian, Selects correctly the needle gauge and length requested by the veterinarian, Follows OSHA guidelines in collecting and disposing of bio-hazardous materials
Food Safety Programs; Carcass Disposal Regulations; Animal Welfare Regulations (16-10, 16-12, 16-13)	(5) The student explains the relationship between regulations; agriculture and safety, health and the environment	A) Determine the effects of agriculture, food, and natural resources upon safety, health and the environment	
Food Safety Programs; Carcass Disposal Regulations; Animal Welfare Regulations (16-10, 16-12, 16-13)		(B) Identify regulations relating to safety, health, and the environmental systems in agriculture	
Food Safety Programs; carcass Disposal Regulations; Animal Welfare Regulations; Laws Related to Veterinary Medicine (16-10, 16-12, 15-13, 16-16)		(C) Describe methods to maintain and improve safety, health, and the environmental systems in agriculture, food, and natural resources	