Veterinary Medical Applications
At-A-Glance - Lamar CISD

Ongoing Skills Imbedded All Year	**Professional Standards/Employability Skills/Technical Skills**		
	1(A) The student will identify career development and entrepreneurship opportunities in the field of veterinary science. 1(B) The student will demonstrate competencies related to resources, information, interpersonal skills, and systems of operation in veterinary science. 1(C) The student will demonstrate knowledge of personal and occupational health and safety practices in the workplace. 1(D) The student will identify employers' expectations, including appropriate work habits, ethical conduct, and legal responsibilities. 1(E) The student will demonstrate characteristics of good citizenship such as stewardship, advocacy, and community leadership. 1(F) The student will research career topics using technology such as the Internet.		
Certification Based Skills	Keep work areas clean and demonstrate knowledge of basic sanitary procedures. Handle animals in a safe, humane manner. Use proper procedure for placing animal in cages, large animals in stall, moving cattle/horses through chutes and safely haltering/releasing a large animal. Observes patients and reports observations to attending veterinarian. Properly bath/dips animals following protocols. Maintains cages/kennels/stalls and manages proper bedding. Recognizes common breeds and varieties of exotic animals. Describe and demonstrate proper method of administration of injectable/topical/oral drugs for various species. Identify syringes, fill with medication, and properly dispose of sharp objects used in the clinic. Manages information and records relative to boarding of animal.		
Grading Period	**Unit Name**	**Estimated Time Frame**	**TEKS**
Grading Period 1 29 Days	**SAEs & FFA**	**9 Days**	2A, 2B, 2C, 2D, 1E
	2(A) The student will plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity. 2(B) The student will apply proper record-keeping skills as they relate to the supervised agriculture experience. 2(C) The student will participate in youth leadership opportunities to create a well-rounded experience program. 2(D) The student will produce and participate in a local program of activities using a strategic planning process. 1(E) The student will demonstrate characteristics of good citizenship such as stewardship, advocacy, and community leadership.		
	Careers in Animal Health	**5 Days**	1A, 1B, 1C, 1D, 1F
	1(A) The student will identify career development and entrepreneurship opportunities in the field of veterinary science. 1(B) The student will demonstrate competencies related to resources, information, interpersonal skills, and systems of operation in veterinary science. 1(C) The student will demonstrate knowledge of personal and occupational health and safety practices in the workplace. 1(D) The student will identify employers' expectations, including appropriate work habits, ethical conduct, and legal responsibilities. 1(F) The student will research career topics using technology such as the Internet.		
	Importance of Animal Health	**5 Days**	3A, 3B, 3D
	3(A) The student will explain the human-animal bond and how to interact with clients and their animals. 3(B) The student will identify trends, issues, and historical events that have influenced animal use and care. 3(D) The student will evaluate the principles of veterinary medical ethics.		
	Safety and Handling	**10 Days**	3A, 3C, 7D
	3(A) The student will explain the human-animal bond and how to interact with clients and their animals. 3(C) The student will describe the legal aspects of animal welfare and animal rights. 7(D) The student will describe normal animal behavior and vital signs compared to sick animals using medical terminology.		
	Office Management	**5 Days**	3A, 3E, 4A, 4B, 4C, 4D
	3(A) The student will explain the human-animal bond and how to interact with clients and their animals. 3(E) The student will review policies and procedures in veterinary medicine that reflect various local, state, and federal laws. 4(A) The student will identify skills needed to communicate effectively with clients and pet owners in the community. 4(B) The student will identify vital information and demonstrate effective communication skills necessary to solve problems. 4(C) The student will explain the role and importance of marketing and its effects on the success of a veterinary hospital. 4(D) The student will develop skills involving the use of electronic technology commonly found in a veterinary hospital such as centrifuge, autoclave, and radiography positions.		

Grading Period 2 27 Days	**Animal Health Terminology**	**11 Days**	5A, 5B, 5D, 5E
	5(A) The student will analyze veterinary terms to discover their meanings and recognize common Greek and Latin prefixes, suffixes, and roots. 5(B) The student will use directional anatomical terms appropriately. 5(D) The student will describe the major body systems using appropriate medical terminology. 5(E) The student will recognize, pronounce, spell, and define medical terms relating to diagnosis, pathology, and treatment of animals.		
	Anatomy & Physiology	**11 Days**	5B, 5C, 5D, 7A, 7B
	5(B) The student will use directional anatomical terms appropriately. 5(C) The student will identify anatomical structures of animals. 5(D) The student will describe the major body systems using appropriate medical terminology. 7(A) The student will identify the parts of the skeletal, muscular, respiratory, circulatory, digestive, endocrine, and nervous systems. 7(B) The student will describe the functions of the skeletal, muscular, respiratory, circulatory, digestive, endocrine, and nervous systems.		
Grading Period 3 28 Days Add 3	**Anatomy & Physiology continue**	**13 Days**	5B, 5C, 5D, 7A, 7B
	5(B) The student will use directional anatomical terms appropriately. 5(C) The student will identify anatomical structures of animals. 5(D) The student will describe the major body systems using appropriate medical terminology. 7(A) The student will identify the parts of the skeletal, muscular, respiratory, circulatory, digestive, endocrine, and nervous systems. 7(B) The student will describe the functions of the skeletal, muscular, respiratory, circulatory, digestive, endocrine, and nervous system.		
	Hospital Procedures, Clinical Exams and Mid-term Review/Exams	**15 Days**	3E, 4B, 4D, 7C, 10A, 10B, 10C, 10D, 10E, 10F, 14A, 14B, 14C, 14D, 14E, 14F
	3(E) The student will review policies and procedures in veterinary medicine that reflect various local, state, and federal laws. 4(B) The student will identify vital information and demonstrate effective communication skills necessary to solve problems. 4(D) The student will develop skills involving the use of electronic technology commonly found in a veterinary hospital such as centrifuge, autoclave, and radiography positions. 7(C) The student will identify appropriate anatomical sites for injections, measuring vital signs, and collecting blood samples for various animal species. 10(A) The student will describe the characteristics and signs of a healthy animal. 10(B) The student will recognize examples of abnormalities and relate them to their associated problems and illnesses. 10(C) The student will take temperature, pulse, and respiration for a variety of animals. 10(D) The student will describe effects of age, stress, and environmental factors on vital signs of animals. 10(E) The student will explain procedures for physical examinations. 10(F) The student will explain the regional approach to assess an animal's health. 14(A) The student will explain the care, maintenance, and use of equipment and instruments found in veterinary practice. 14(B) The student will explain appropriate hospital procedures. 14(C) The student will discuss emergency protocols and describe first aid procedures, including cardiopulmonary resuscitation, control of bleeding, and treatment for shock, for small and large animals. 14(D) The student will demonstrate animal care skills such as administering medications, nail trimming, bathing, grooming, ear cleaning, expressing anal sacs, dental prophylaxis, enema administration, and identification of animals. 14(E) The student will demonstrate therapeutic care such as patient observation, maintaining and administering fluids, applying bandages, caring for open wounds, and managing hydrotherapy and physical therapy. 14(F) The student will describe skills involved in the reproductive and genetic evaluation of animals.		
Grading Period 4 31 Days	**Laboratory and Radiology Procedures**	**10 Days**	4D, 7C, 7D, 11A, 11B, 11C, 13A, 13B, 13C, 13D, 13E
	4(D) The student will develop skills involving the use of electronic technology commonly found in a veterinary hospital such as centrifuge, autoclave, and radiography positions. 7(C) The student will identify appropriate anatomical sites for injections, measuring vital signs, and collecting blood samples for various animal species. 7(D) The student will describe normal animal behavior and vital signs compared to sick animals using medical terminology.		

	11(A) The student will identify imaging equipment such as an ultrasonograph, endoscope, electrocardiograph, and radiograph. 11(B) The student will explain safety procedures, maintenance, and operation of imaging equipment*. 11(C) The student will demonstrate patient restraint and positioning methods used for imaging purposes*. 13(A) The student will describe laboratory tests and explain the importance of proper laboratory procedures. 13(B) The student will demonstrate the procedures used in collecting, handling, preparing, and examining fecal, blood, and urine specimens*. 13(C) The student will discuss normal and abnormal results obtained in complete blood counts. 13(D) The student will explain sensitivity testing and how to read testing results. 13(E) The student will prepare microscope slides, preserve specimens, and perform several of the most common laboratory tests such as fecal flotations, microfilaria smear, and packed cell volume*.		
	Pharmacology and Vet Math	**11 Days**	8A, 8B, 8C, 8D, 8E, 8F, 8G, 8H, 16A, 16B, 16C, 16D, 16E
	8(A) The student will add, subtract, multiply, and divide whole numbers, fractions, and decimals as related to veterinary medicine. 8(B) The student will apply mathematical skills needed for accurate client assessment such as measurement, conversion, and data analysis. 8(C) The student will solve veterinary problems by calculating percentages and averages. 8(D) The student will convert between English and metric units. 8(E) The student will determine weight, volume, and linear measurements using scientific calculations. 8(F) The student will solve word problems using ratios and dimensional analysis. 8(G) The student will interpret data using tables, charts, and graphs. 8(H) The student will calculate and prepare chemical concentrations using mathematical equations. 16(A) The student will identify medications according to their classification, form, routes, and methods of administration*. 16(B) The student will explain handling and distribution, protocol, and laws for controlled substances, including the U.S. Drug Enforcement Agency. 16(C) The student will calculate dosage using factors such as concentration of drug, weight of animal, and required dosage. 16(D) The student will complete a prescription label with identifiers that are required by the U.S. Food and Drug Administration. 16(E) The student will select equipment and instruments used to give medications*.		
	Animal Nutrition	**10 Days**	12A, 12B, 12C, 12D, 12E, 12F, 12G, 12H
	12(A) The student will identify the anatomy of the digestive system of ruminant and non-ruminant animals. 12(B) The student will describe the process of digestion in ruminant and non-ruminant animals. 12(C) The student will identify types and sources of nutrients and classes of feeds*. 12(D) The student will identify feed additives and describe how additives affect the food supply. 12(E) The student will evaluate animal dietary needs and feeding factors. 12(F) The student will calculate energy requirements and formulate rations. 12(G) The student will discuss feeding practices and feed-quality issues. 12(H) The student will analyze the quality of commercially prepared feeds.		
Grading Period 5 30 Days	**Disease and Animal Health**	**16 Days**	9A, 9B, 9C, 9D, 9E, 9F, 9G, 9H, 9I
	9(A) The student will identify factors that influence the health of animals. 9(B) The student will identify pathogens and describe the effects that diseases have on various body systems. 9(C) The student will explain courses of treatment for common viral and bacterial diseases. 9(D) The student will describe the process of immunity and disease transmission. 9(E) The student will identify internal, external, and protozoal parasites using common and scientific names. 9(F) The student will describe life cycles of common parasite. 9(G) The student will explain how parasites are transmitted and their effect on the host. 9(H) The student will conduct parasitic diagnostic procedures. 9(I) The student will describe types of treatments for diseases and parasites.		
	Surgical Assisting	**14 Days**	15A, 15B, 15C, 15D, 15E, 15F
	15(A) The student will explain the protocol for pre-surgical and post-surgical care of a patient. 15(B) The student will describe methods used in the sterilization and preparation of small and large animal surgery packs. 15(C) The student will review skills involved in patient and surgical room preparation. 15(D) The student will describe surgical procedures such as castration, dehorning, and docking. 15(E) The student will describe care of newborn, orphan, and recumbent patients. 15(F) The student will identify, and monitor equipment used in surgical procedures.		

Veterinary Medical Applications
Lab Safety and Scientific Processes
Readiness Standards
Supporting Standards

Grading Period 6 27 Days	**Animal Management, Final Review/Exam**	**27 Days**	6A, 6B, 6C, 6D
	6(A) The student will identify a variety of animal species such as companion, exotic, and large animal species according to common breed characteristics. 6(B) The student will recognize common animal behavioral problems within companion, exotic, and large animals per industry standard. 6(C) The student will identify correct handling protocols and discuss their relevance to veterinary medical staff*. 6(D) The student will demonstrate appropriate methods of handling a variety of animal behaviors*.		

*TEKs associated with certification-based skills.