Florida CTE

Agriculture, Food and Natural Resources: Animal Science and Services 2: Grades 9-12

Describe animal science and the role of animals in society. The student will be able to: 1.0	1 **Describe animal science and the role of animals in society.** 1.1 2 **Analyze perceptions of public opinion of animal related issues.** 1.2 3 **Identify the origin, significance, distribution, and domestication of animal species** 1.3 4 **Describe animal adaptations developed in response to environment and domestication.** 1.4 5 **Predict adaptations of animals to production practices and environments.** 1.5 6 **Describe the predominant sectors of the animal science industry.** 1.6 7 **Outline the development of the animal industry and the resulting products, services, and careers.** 1.7 8 **Predict trends and implications of future development of the animal systems industry.** 1.8
Classify animals according to hierarchical taxonomy and agricultural use. The student will be able to: 2.0	1 **Analyze the visual characteristics of an animal or animal product; select taxonomical classification terminology when referring to companion and production animals.** 2.1 2 **Appraise and evaluate the economic value of animals for various applications in the agriculture industry.** 2.2
Evaluate and implement the steps and requirements to pursue a career opportunity in the animal industry. The student will be able to: 3.0	1 **Locate and obtain information on animal-industry careers and career opportunities.** 3.1 2 **Examine the educational training and experiential requirements to pursue a career in the animal industry** 3.2 3 **Examine professional organizations and commodity groups in the animal industry and supporting organizations.** 3.3

	4 Demonstrate those qualities, attributes, and skills necessary to succeed in, or further prepare for, a chosen career while effectively contributing to society. 3.4
	5 Prepare and maintain Supervised Agricultural Experience (SAE) records. 3.5
Describe animal and human first aid and laboratory safety. The student will be able to: 4.0	1 Practice safe procedures when working with animal-related equipment and in laboratory settings 4.1
	2 Understand animal behaviors as they relate to practicing safety precautions around animal restraint. 4.2
	3 Discuss the impact of unsafe procedures. 4.3
	4 Define zoonosis and identify selected zoonotic diseases. 4.4
	5 Discuss OHSA as it relates to the animal industry. 4.5
	6 Explain how to use a first aid kit and its key components. 4.6
	7 Recognize allergic reactions and proper responses. 4.7
	8 Describe proper use of eye wash solution. 4.8
	9 Explain how to control minor hemorrhage and/or trauma. 4.9
	10 Explain emergency procedures. 4.10
Recognize normal and abnormal animal behaviors. The student will be able to: 5.0	1 Distinguish between instinctive and learned behaviors. 5.1
	2 Recognize normal and abnormal behavioral characteristics of animals through observations. 5.2
	3 Identify behavioral problems. 5.3

Apply principles of comparative anatomy and physiology to uses within various animal systems. The student will be able to: 6.0

1. **Identify parts, major organ, and functions, of the following systems of animals using correct terminology:** 6.1
   - a Identify the general function of the skeletal system and the major bones of the axial and appendicular skeleton. 6.1.A
   - b Identify the general function of the nervous system and the major organs. 6.1.B
   - c Identify the general function of the muscular system and major groups of muscles. 6.1.C
   - d Identify the general function of the digestive system; differentiate between ruminants and nonruminants (monogastric and hind gut fermentors); and the major organs. 6.1.D
   - e Identify the general function of the respiratory system and the major organs. 6.1.E
   - f Identify the general function of the urinary system and the major organs. 6.1.F
   - g Identify the general function of the reproductive system and both male and female organs. 6.1.G
2. **Compare and contrast animal cells, tissues, organs, body systems types and functions among animal species.** 6.2
3. **Apply knowledge of anatomical and physiological characteristics of animals to make production and management decisions.** 6.3
4. **Correlate the functions of animal cell structures to animal growth, development, health, and reproduction.** 6.4

Demonstrate safe animal handling and management techniques. The student will be able to: 7.0

1. **Devise, implement and evaluate safety procedures and plans for working with animals by species using information based on animal behavior and responses.** 7.1
2. **Outline safety procedures for working with animals by species.** 7.2
3. **Interpret animal behaviors and execute protocols for safe handling of animals.** 7.3
4. **Analyze and document animal husbandry practices and their impact on animal welfare.** 7.4
5. **Design programs that assure the proper care and use of animals and prevent abuse or mistreatment.** 7.5
6. **Implement quality-assurance programs and procedures for animal production.** 7.6

Analyze the community's responsibility in options for caring for

1. **Differentiate between animal control agencies and humane societies.** 8.1
2. **Explain the laws governing animal care and use.** 8.2

unwanted/neglected livestock. The student will be able to: 8.0

Evaluate the importance of the animal science industry to understand the impact on global economy. The student will be able to: 9.0

1. **Assess the impact of the animal science industry upon the US gross national product and the total global economy.** 9.1
2. **Investigate local, state, and national regulatory laws, industry regulations, and legislation for animal agriculture businesses.** 9.2
3. **Identify and describe the primary government agencies involved with animal agriculture** 9.3
4. **Research new and emerging technologies in animal agriculture and their impact on the economy.** 9.4
5. **Recognize the value of the food and agribusiness industry.** 9.5