# Scope & Sequence

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| Course Name: Equine Science **TSDS PEIMS Code:** 13000500 | | | **Course Credit:** .5  **Course Requirements:** Recommended for students in grades 10-12.  **Prerequisites:** None. |
| **Course Description:** This course is designed to introduce students to the scientific principles of equine animal systems and to the equine industry. To prepare for careers in the field of animal science, students must enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. | | | |
| **NOTE:** This is a suggested scope and sequence for the course content. This content will work with any textbook or instructional materials. If locally adapted, make sure all TEKS are covered. | | | |
| **Total Number of Periods**  **Total Number of Minutes**  **Total Number of Hours** | 88 Periods.  3960 Minutes.  66 Hours\* | \*Schedule calculations based on 175/180 calendar days. For 0.5 credit courses, schedule is calculated out of 88/90 days. Scope and sequence allows additional time for guest speakers, student presentations, field trips, remediation, extended learning activities, etc. | |
| **Unit Number, Title, and Brief Description** | **# of Class Periods\***  (assumes 45-minute periods)  Total minutes per unit | **130.6 (c) Knowledge and Skills**  **TEKS Covered** | |
| **1. Career Exploration in the Agricultural/Equine Industry**  Students will learn about careers in various areas of the equine industry, the personal skills needed to obtain one of these jobs and how skills needed for success have changed over time. Students will understand the importance of time management, the importance of effective communication and appropriate interaction in the workplace, as well as understand the importance of a first impression. This unit may culminate in an experiential activity designed to allow the students to create a resume and cover letter with a job description and to participate in a mock job interview with a panel of possible employers. | 8 periods  360 minutes | 1. The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:   (a) identify career development and entrepreneurship opportunities in the field of equine science;  (b) demonstrate competencies related to resources, information, interpersonal skills, and systems of operation in equine science.  (c) demonstrate knowledge of personal and occupational health and safety practices in the workplace;    (d) identify employers’ expectations, including appropriate work habits, ethical conduct and legal responsibilities.  (f) research career topics using technology such as the internet. | |
| **2. Supervised Agricultural Experience**  In this 2 week unit, students will be able to define and describe Supervised Agricultural Experience (SAE) programs. Students will be able to explain how SAE’s are a vital part of the Agricultural Education Program by participating in local CTSO activities such as FFA as well as engage in a required SAE project. Students will be able to identify key partners in developing a successful SAE. Through involvement in an SAE, students will learn expected workplace behavior, develop specific skills within the industry, and will be given the opportunity to apply academic and occupational skills in the workplace. | 10 periods  450 minutes | 1. The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:   (e) demonstrate characteristics of good citizenship such as stewardship, advocacy, and community leadership; and  (f) research career topics using technology such as the internet.   1. The student develops a supervised agriculture experience program. The student is expected to: 2. Plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity; 3. Apply proper record-keeping skills as they relate to the supervised agriculture experience. 4. Participate in youth leadership opportunities to create a well-rounded experience program; and 5. produce and participate in a local program of activities using a strategic planning process. | |
| **3. Horse Breeds and Use**  Students will distinguish the characteristics that makes horses desirable for different uses. Students will be able to identify horses based on their breed and purpose. At the end of this unit, students should be able to identify breeds from pictures as well as describe characteristics. | 15 periods  675 minutes | (3) The student analyzes equine science as it relates to the selection of horses. The student is expected to:  (a) recognize the importance of equine industries such as racing, rodeos, equestrian therapy, and the global food market; and  (b) evaluate and select horses based on purpose. | |
| **4. Anatomy, Physiology and the Nutritional Needs of Horses**  Students will understand the nutritional requirements of horses as well as demonstrate a working knowledge of the anatomy and physiology of the horse. During this 3 week unit, students will be able to list the six categories of nutrients and describe the functions of nutrients within the body. Students will also identify and discuss the functions of the systems in a horse. At the end of this unit students should be able to demonstrate what they have learned by participating in an activity that allows them to develop a feeding program for horses. | 15 periods  675 minutes | (4) The student knows how to provide proper nutrition using accepted protocols and processes to maintain animal performance. The student is expected to:  (a) determine nutritional requirements of horses;  (b) describe the anatomy and physiology of horses, including the skeletal, muscular, respiratory, reproductive, and circulatory systems; and  (c) explain methods of maintaining horse health and soundness. | |
| **5. Animal Pests and Diseases**  Students will differentiate the common diseases and pests of the horse and prescribe preventive measures. Students will gain an understanding of how diseases and sickness can be a severe problem in horses if they go untreated. Students will learn to identify common diseases and the importance of practicing disease prevention. This unit culminates in an activity designed to allow students to demonstrate all they have learned about animal pests and diseases. | 15 periods  675 minutes | (6) The student identifies animal pests and diseases. The student is expected to:  (a) identify and describe the role of bacteria, fungi, viruses, genetics, and nutrition in disease;  (b) identify methods of disease control, treatment and prevention;  (c) classify internal and external parasites, including treatment and prevention.  (d) identify behavioral diseases such as cribbing, having and wind sucking. | |
| **6. Horse Management**  Students will critique the housing, shelter and facilities needed to care for horses as well as demonstrate safe handling of horses. Students will also learn the value of keeping accurate records and understand that a well managed environment is critical for a successful breeding operation. | 15 periods  675 minutes | (5) The student analyzes equine science as it relates to the management of horses. The student is expected to:  (a) select equipment and facilities for horses;  (b) demonstrate methods of handling horses safely; and  (c) identify the procedures for breeding horses per industry standards | |
| **7. Biotechnology Issues and Animal Welfare Policies in the Equine Industry**  Students will become aware of biotechnology issues and explore animal welfare policies as it relates to the equine industry. The students will describe the importance of biotechnology in society and analyze the issues that have affected agricultural/equine biotechnology. | 10 periods  450 minutes | (7) the student compares and contrasts issues affecting the equine industry. The student is expected to:  (a) describe biotechnology issues related to the equine industry; and  (b) identify animal welfare policy pertaining to equine industries such as racing, rodeos, equestrian therapy, the global food market, and pharmaceutical research. | |