

STRANDS AND STANDARDS

EQUINE SCIENCE-YEAR



Course Description

Students will be exposed to equine science and technology principles which include genetics, anatomy, physiology/nutrition, diseases, pests, and management practices. The scientific processes of observation, measurement, hypothesizing, data gathering, interpretation, analysis, and application are stressed. Career opportunities and educational preparation are examined. Learning activities are varied, with classroom, laboratory, and field experiences emphasized.

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|---------------------------------|------------------------------------------|
| Intended Grade Level | 9-12 |
| Units of Credit | 1.0 |
| Core Code | 30.02.00.00.070 |
| Concurrent Enrollment Core Code | N/A |
| Prerequisite | N/A |
| Skill Certification Test Number | 126 |
| Test Weight | 1.0 |
| License Type | CTE and/or Secondary Education 6-12 |
| Required Endorsement(s) | |
| Endorsement 1 | Agriculture (CTE/General) |
| Endorsement 2 | Animal Science & Technology |
| Endorsement 3 | Agriculture Science (Career & Technical) |

STRAND 1

Students will develop an understanding of the role of FFA in Agricultural Education Programs.

Standard 1

Students will understand the history and organization of FFA.

- Students will explain how, when, and why the FFA was organized.
- Students will explain the mission and strategies, colors, motto, parts of the emblem, and the organizational structure of the FFA.
- Students will recite and explain the meaning of the FFA Creed.
- Students will explain the purpose of a Program of Activities and its committee structure.

Standard 2

Students will discover opportunities in FFA.

- Students will describe how the FFA develops leadership skills, personal growth, and career success.
- Students will identify major state and national activities available to FFA members.

Standard 3

Students will determine FFA degrees, awards, and Career Development Events.

- Students will explain the FFA degree areas.
- Students will identify the FFA proficiency awards.
- Students will explain various team and individual Career Development Events.

Performance Objective

- Attend an FFA meeting.

STRAND 2

Students will understand the benefits of a Supervised Agricultural Experience (SAE) Program.

Standard 1

Students will determine the benefits of an SAE.

- Students will explain the importance of goals and career ladders.
- Students will define supervised horticultural/agricultural experience.
- Students will explain the benefits of supervised horticultural/agricultural experience programs.

Standard 2

Students will determine the kinds of SAE programs.

- Students will explain the difference between entrepreneurship and placement SAE's.
- Students will describe research/experimentation and exploratory SAE's.
- Students will explain the characteristics of a good SAE program and student responsibilities that are involved.

Standard 3

Students will research possible SAE programs.

- Students will identify career interest areas in agriculture.
- Students will identify skills needed for career success.
- Students will explain opportunities for SAE programs.

Standard 4

Students will plan an SAE program.

- Student will identify the steps in planning an SAE program.
- Student will identify the parts of an annual SAE program plan.
- Student will discuss the function of a training plan and/or agreement in an SAE program.

Standard 5

Students will implement SAE programs.

- Students will discuss the importance of keeping records on an SAE program.
- Students will explain the types of financial records needed to support a chosen SAE program.
- Students will identify standards to follow in keeping records on an SAE program.

Performance Objective

- Develop short and long range SAE goals.
- In an approved record book, record all transactions and activities on a SAE.
- Develop short and long range leadership and personal development goals.

STRAND 3

Students will study career opportunities in equine science

Standard 1

Students will present the general skills required for employment.

Standard 2

Students will use resources and assess information

Standard 3

Students will describe the educational opportunities available.

Standard 4

Students will list three ways to gain experience in the horse industry.

Standard 5

Students will identify eight careers and entrepreneurship opportunities in equine science.

STRAND 4

Students will understand the history of the modern horse and the development of horse breeds, types, and classes.

Standard 1

Students will describe the development of modern horses.

Standard 2

Students will discuss the domestication of the horse.

Standard 3

Students will identify historical trends of human utilization of horses.

Standard 4

Students will describe the current horse industry.

Standard 5

Students will describe the gait and movement of horses.

Standard 6

Students will classify and describe equine as pony, light, draft, and long-eared.

Standard 7

Students will list and describe equine breeds and their origins.

Performance Objective

- Correctly classify specific equine breeds.
- Identify equine breeds.

STRAND 5

Students will analyze equine anatomy and physiology.

Standard 1

Students will identify the external parts of the horse.

Standard 2

Students will explore equine bodily systems.

Standard 3

Students will describe the skeletal and muscular systems of the horse.

Standard 4

Students will describe the digestive system of the horse.

Standard 5

Students will describe the reproductive systems of the horse.

Performance Objective

- Identify the parts of the skeletal system.
- Identify the parts of the reproductive system.
- Identify the parts of the digestive system.
- Identify the external parts of a horse.

STRAND 6

Students will learn about equine nutrition and feeding management.

Standard 1

Students will list and discuss basic nutrients.

Standard 2

Students will identify feeds important to horses.

Standard 3

Students will balance an equine ration.

Standard 4

Students will list and describe equine nutritional disorders.

Performance Objective

- Develop a balanced equine ration.

STRAND 7

Students will explore concepts in equine health management.

Standard 1

Students will list, identify, and describe equine diseases.

Standard 2

Students will identify horse internal and external parasites.

Standard 3

Students will properly care for hooves and explain hoof anatomy.

Standard 4

Students will determine proper horse health management practices.

- Vaccination program
- Teeth floating and aging
- Sanitation

Performance Objective

- Identify symptoms of equine diseases and parasites.

STRAND 8

Students will understand horse genetics.

Standard 1

Students will explore the fundamentals of genetics.

Standard 2

Students will investigate horse coat color and markings.

Standard 3

Students will explain the heritability of performance traits.

Performance Objective

- Predict the heritability of coat color, markings, and performance traits.

STRAND 9

Students will explore horse reproduction and parturition.

Standard 1

Students will describe the physiology of the reproduction tracts of stallions and mares.

Standard 2

Students will summarize the estrus cycle and proper times to breed.

Standard 3

Students will describe proper horse gestation management.

Standard 4

Students will explore equine reproductive technology.

- Artificial insemination
- Embryo transfer
- Cloning

Standard 5

Students will discuss proper care during pregnancy and parturition.

Standard 6

Students will describe the horse condition scoring system.

Performance Objective

- Develop a breeding schedule for a mare.

STRAND 10

Students will study and utilize equine behavior training.

Standard 1

Students will list and discuss horse behavioral categories.

Standard 2

Students will demonstrate safe handling of horses.

Standard 3

Students will explain imprinting.

Standard 4

Students will identify abnormal horse behavior (vices).

Standard 5

Students will discuss how to load and haul a horse and how to check the safety of a trailer.

Performance Objective

- Demonstrate the safe handling of horses.

STRAND 11

Students will learn about equine facilities and equipment.

Standard 1

Students will identify, discuss, and describe the usage of Western and English tack.

Standard 2

Students will outline the transportation of horses.

Standard 3

Students will investigate horse facilities and fencing.

Standard 4

Students will discuss waste management.

Performance Objective

- Develop a waste management plan.

STRAND 12

Students will know how to evaluate and select a horse.

Standard 1

Students will summarize the considerations of purchasing a horse.

Standard 2

Students will recognize the ideal horse conformation characteristics.

Standard 3

Students will recognize conformation faults and predict potential unsoundness

Standard 4

Students will present oral and written reasons in horse evaluation.

Performance Objective

Present oral reasons in horse evaluation.

- Select a horse based on conformation characteristics.

Skill Certificate Test Points by Strand

| Test Name | Test # | Number of Test Points by Strand | | | | | | | | | | | | Total Points | Total Questions |
|---------------------|--------|---------------------------------|---|---|----|----|---|---|---|----|----|----|----|--------------|-----------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | |
| Equine Science-Year | 126 | 2 | 2 | 4 | 12 | 11 | 8 | 4 | 5 | 11 | 11 | 4 | 5 | 79 | 79 |