# Equine Science Course No. 18104 Credit: 1.0

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| --- | --- | --- | --- |
| **Student name:** |  | **Graduation Date:** |  |

Pathways and CIP Codes: **Animal Science, Health, and Related Industries (01.0901); Diversified Agricultural Science (01.0000)**

Course Description: Equine Science courses focus on the care and management of horses. Animal nutrition, health, behavior, reproduction and breeding, anatomy and physiology, facilities, handling and training, and grooming are typical areas of study.

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Equine Orientation and Career Exploration

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Discuss the history of the equine. |  |
| 1.2 | Examine the growth and decline of the horse industry. |  |
| 1.3 | Compare the various uses of equine. |  |
| 1.4 | Identify career opportunities in equine industry. |  |
| 1.5 | Compare the uses of horses in other countries. |  |

## Benchmark 2: Anatomy and Physiology

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Identify and label the surface anatomy. |  |
| 2.2 | Name and explain functions of the major organs of the thoracic, abdominal, and pelvic cavities. |  |
| 2.3 | Identify and label the skeletal system. |  |
| 2.4 | Identify and label the muscular system. |  |
| 2.5 | Determine the age of a horse by using the equines teeth. |  |
| 2.6 | Understand the importance of dental maintenance. |  |
| 2.7 | Identify and describe functions of the digestive system. |  |

## Benchmark 3: Equine Nutrition

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Define and describe food nutrients. |  |
| 3.2 | Formulate and balance rations. |  |
| 3.3 | Classify feedstuffs according to their nutritional content. |  |
| 3.4 | Identify nutritional deficiencies. |  |
| 3.5 | Determine a least cost ration based on local prices. |  |
| 3.6 | Identify feeding management recommendations for various production levels. |  |
| 3.7 | List and identify toxic feedstuffs for horses. |  |

## Benchmark 4: Diseases and Parasites

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Identify the major symptoms and treatments for major internal and external parasites. |  |
| 4.2 | Demonstrate how to determine parasite infestation by performing fecal exam. |  |
| 4.3 | List the major diseases, their symptoms, prevention, and treatment. |  |
| 4.4 | Prescribe preventative measures for major parasites and diseases. |  |
| 4.5 | Demonstrate vaccination procedures. |  |

## Benchmark 5: Health

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 5.1 | Describe the signs of good health in a horse of all ages. |  |
| 5.2 | Understand basic first aid for horses. |  |
| 5.3 | Relate body condition to health. |  |
| 5.4 | Measure horse vital signs. |  |
| 5.5 | Evaluate a horse’s height and weight. |  |
| 5.6 | List causes of colic and ways to prevent it. |  |
| 5.7 | Identify symptoms and treatment methods for colic. |  |
| 5.8 | Understand the procedure and purpose of castration. |  |
| 5.9 | Label the parts of the hoof. |  |
| 5.10 | Discuss the care of the hoof and importance of farrier work like shoeing. |  |

## Benchmark 6: Reproduction

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 6.1 | Recognize the importance of genetics in the improvement of horses. |  |
| 6.2 | Label the parts of male/female reproductive systems. |  |
| 6.3 | Explain the function of parts in reproductive systems. |  |
| 6.4 | Explain the estrous cycle. |  |
| 6.5 | Identify the signs of standing heat. |  |
| 6.6 | Explain sex determination at fertilization. |  |
| 6.7 | Discuss sex-linked characters, crossing over and mutation. |  |
| 6.8 | Describe the collecting of semen. |  |
| 6.9 | Outline the process used in artificial insemination. |  |
| 6.10 | Explain the advantages of using embryo transfers. |  |
| 6.11 | Identify proper pregnant mare and foal care. |  |
| 6.12 | Recognize the importance of stallion and broodmare care. |  |

## Benchmark 7: Horse Breeds and Selection

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 7.1 | Identify major breeds of horses. |  |
| 7.2 | Recognize various coat colors and markings. |  |
| 7.3 | Analyze pedigrees. |  |
| 7.4 | Explain the process of registering a horse. |  |
| 7.5 | List factors to consider in selecting horses for specific purposes. |  |
| 7.6 | Describe desirable characteristics of a horse for specific purposes. |  |
| 7.7 | Distinguish between blemishes and unsoundness. |  |
| 7.8 | Identify common genetic disorders in horses. |  |

## Benchmark 8: Equitation/Training

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 8.1 | Identify basic grooming and farrier tools. |  |
| 8.2 | Demonstrate grooming of horses. |  |
| 8.3 | Identify the two main styles of equitation and equipment required. |  |
| 8.4 | Demonstrate saddling/bridling/haltering a horse. |  |
| 8.5 | Identify different equine behaviors. |  |
| 8.6 | Differentiate between various training aids. |  |
| 8.7 | Describe the impacts of positive and negative reinforcement. |  |
| 8.8 | Identify western tack and equipment. |  |
| 8.9 | Identify English tack and equipment. |  |

## Benchmark 9: Management of an equine facility

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 9.1 | Determine labor requirements. |  |
| 9.2 | Create a record keeping system for an equine operation. |  |
| 9.3 | Understand pasture/stable management. |  |
| 9.4 | Analyze equine safety issues. |  |
| 9.5 | Determine the use of buildings and fencing. |  |
| 9.6 | Accurately record cost analysis. |  |
| 9.7 | Create a bill of sale. |  |
| 9.8 | List and describe various horse enterprises. |  |
| 9.9 | Describe the importance of insurance for horses and riders. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

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