

Equine Science

Exam Information	Description
Exam number 127 Items 51 National Career Cluster Agriculture, Food, & Natural Resources Certification available Yes	The Equine Science industry certification exam assesses learners on equine science principles, including the history of the horse, anatomy, nutrition, diseases, pests, and overall health. The exam evaluates the scientific processes of observation, measurement, hypothesizing, data gathering, interpretation, analysis, and application. It also covers career opportunities and educational preparation. Assessment includes varied learning activities, with classroom, laboratory, and field experiences emphasized.

Exam Blueprint and Performance Skills

Standard	Percentage of exam score
1. Candidate Organizations in Agricultural Education	2%
2. Agricultural Experience in Agricultural Education	2%
3. History and Horse Development	31%
4. Equine Anatomy and Physiology	31%
5. Equine Nutrition and Feeding Management	18%
6. Equine Health Management	16%
7. Horse Tack	0%

*Includes performance skill evaluation

Standard 1 - Candidate Organizations In Agricultural Education

Candidate will participate in personal and leadership development activities through the FFA.

Objective 1 Candidate will use communication skills to effectively communicate with others

1. Understand when it is appropriate to listen and to speak. 2. Understand and follow verbal and written instructions for classroom and laboratory activities. 3. Will practice communication skills through public speaking using one or more of the following activities: memorized speech, prepared speech, extemporaneous speech, parliamentary practice, group presentation, or serving in a leadership capacity.

Objective 2 Candidate will effectively use teamwork to respectfully work with others

1. Identify and understand different roles in working with a team. 2. Lead a group discussion or serve in a leadership capacity.

Objective 3 Candidate will use critical thinking and problem-solving skills.

1. Analyze the cause of the problem. 2. Develop a solution to address the problem. 3. Implement the plan. 4. Evaluate the effectiveness of the plan.

Objective 4 Candidate will be dependable, reliable, steady, trustworthy, and consistent in performance and behavior.

1. Set and meet goals on attendance and punctuality. 2. Prioritize, plan, and manage work to complete assignments and projects on time

Objective 5 Candidate will be accountable for results.

1. Use an achievement chart for activities and behaviors in class that encourages a personal evaluation of classroom performance.
2. Use reflection to describe what was learned, what went well, what could have been improved, and what are the implications to the learning process.
3. Track and communicate progress toward completion of assignments and projects.

Objective 6 Be familiar with the legal requirements and expectations of the course.

1. Be familiar with the course disclosure statement and all requirements for successful completion of the course.
2. Demonstrate workplace ethics, e.g., fair, honest, disciplined.

Optional: Standard performance evaluations on the final page of this document

Standard 2 - Agricultural Experience In Agricultural Education

Candidate will participate in work-based learning activities through the Supervised Agricultural Experience (SAE) Program.

Objective 1 Candidate will demonstrate employability skills.

1. Use a career search network to find career choices.
2. Identify the appropriate CTE Pathway for the selected career choice.
3. Prepare for entry into the workforce by completing one of the following: a list of required skills needed for a career choice, a resume including a list of demonstrated skills, a cover letter or letter of application, a job application, or participate in an actual or simulated job interview.

Objective 2 Candidate will participate in a work-based learning experience outside the classroom.

1. Candidate will plan and implement a Supervised Agricultural Experience Program:
2. Foundational SAE: Career exploration and planning, employability skills for college and career readiness, personal financial management and planning, workplace safety, and agricultural literacy.
3. Immersion SAE: Ownership/entrepreneurship, placement/internship, research, school-based enterprise, and/or service-learning experiences.

Objective 3 Candidate will develop a job portfolio specific to their selected SAE/WBL experience.

1. Candidate will keep a personal record/journal/log of their SAE/WBL experience ; including pictures, financial records, or log of their hours, skills learned, goals, reflection, etc.

Standard 3 - History And Horse Development

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

Objective 1 Candidates will describe the development of the modern horse.

1. Candidates will discuss the domestication of the horse.
2. Candidates will identify historical trends in human utilization of horses.

3. Candidates will describe the current horse industry.

Objective 2 Candidate will classify horses by breed, type, and class.

1. Candidates will list and describe equine breeds and their origins.
2. Candidates will classify and describe equine as a pony, light, draft, and long-eared.
3. Candidates will describe the gait and movement of horses.

Standard 4 - Equine Anatomy And Physiology

Candidates will analyze equine anatomy and physiology.

Objective 1 Objective 1 Candidates will identify the external parts of the horse.

Objective 2 Candidates will explore equine bodily systems.

Objective 3 Candidates will describe the skeletal and muscular systems of the horse

Objective 4 Candidates will describe the digestive system of the horse.

Objective 5 Candidates will describe the reproductive systems of the horse.

Standard 5 - Equine Nutrition And Feeding Management

Candidates will learn about equine nutrition and feeding management.

Objective 1 Candidates will identify feeds important to horses and discuss their nutrient value.

Objective 2 Candidates will balance an equine ration.

Objective 3 Candidates will list and describe equine nutritional disorders.

Standard 6 - Equine Health Management

Candidates will explore concepts in equine health management.

Objective 1 Candidates will list, identify, and describe equine diseases.

Objective 2 Candidates will identify horse internal and external parasites.

Objective 3 Candidates will properly care for hooves and explain hoof anatomy.

Objective 4 Candidates will determine proper horse health management practices.

1. Vaccination program
2. Teeth floating
3. Sanitation

Standard 7 - Horse Tack

Candidates will properly identify horse tack and individual parts on the tack.

Objective 1 Candidates will be able to identify saddles by type. Example: general purpose, dressage, jumping, hunting, youth, western, side, racing, etc

Objective 2 Candidates will be able to identify the parts of a saddle and saddle attachments. Example: pommel, seat, cantle, flaps, billets, stirrup leathers, stirrups, cinch or girth strap, breastplate, etc.

Objective 3 Candidates will be able to identify horse headgear by type. Example: halter, bridle, hackamore, etc.

Objective 4 Candidates will be able to identify the parts of specific headgear and headgear attachments. Example: headpiece, cheekpiece, throatlatch, browband, noseband, bit, reins, buckles, leads, bosal, etc.

Optional: Standard performance evaluations on the final page of this document

Performance Skills Evaluation

Exam name: Equine Science

Candidate Name: _____

Performance assessments may be completed and evaluated any time before the certification is issued. The following performance skills can be used in connection with the associated standards and exam. The evaluator will function as the subject matter expert to determine if the candidate meets the skills requirements with a Yes/No for passing.

Standard 1 – Candidate Organizations in Agricultural Education

- Will practice communication skills through public speaking using one or more of the following activities: memorized speech, prepared speech, impromptu speech, parliamentary practice, group presentation, or serving in a leadership capacity.

Pass:

Standard 2 – Agricultural Experience in Agricultural Education

- Candidate will keep a personal record/journal/log of their SAE/WBL experience; including pictures, financial records or log of their hours, skills learned, goals, reflection, etc.

Pass:

Standard 3 – History and Horse Development

- Correctly classify specific equine breeds.

Pass:

- Correctly identify equine breeds

Standard 4 – Equine Anatomy and Physiology

- Identify the external parts of a horse.

Pass:**Standard 5 – Equine Nutrition and Feeding Management**

- Develop a balanced equine ration.

Pass:**Standard 6 – Equine Nutrition and Feeding Management**

- Develop a balanced equine ration.

Evaluator Name:**Date:**