NOCTI
Partner Credential Blueprint

Principles of Agricultural Science – Animal End-of-Course Assessment (ASA EoC)

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General Assessment Information

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Test Type: The CASE Principles of Agricultural Science – Animal (ASA) End-of-Course Assessment is based on CASE Principles of Agricultural Science – Animal course concepts and is aligned with the National Agriculture, Food, and Natural Resources Content Standards developed by the National Council for Agricultural Education. Eligible participants can earn certification and an accompanying digital badge.

CASE 4 Learning is an initiative of the National Council for Agricultural Education. The end-of-course (EoC) assessments were developed by CASE to align with CASE concepts and National AFNR Standards. The assessments are available through NOCTI, serving as the CASE partner for third-party delivery. EoC assessments serve as a measurement of student success that is statewide, valid, and reliable, and comparable across the state these end-of-course assessments meet Perkins V requirements.

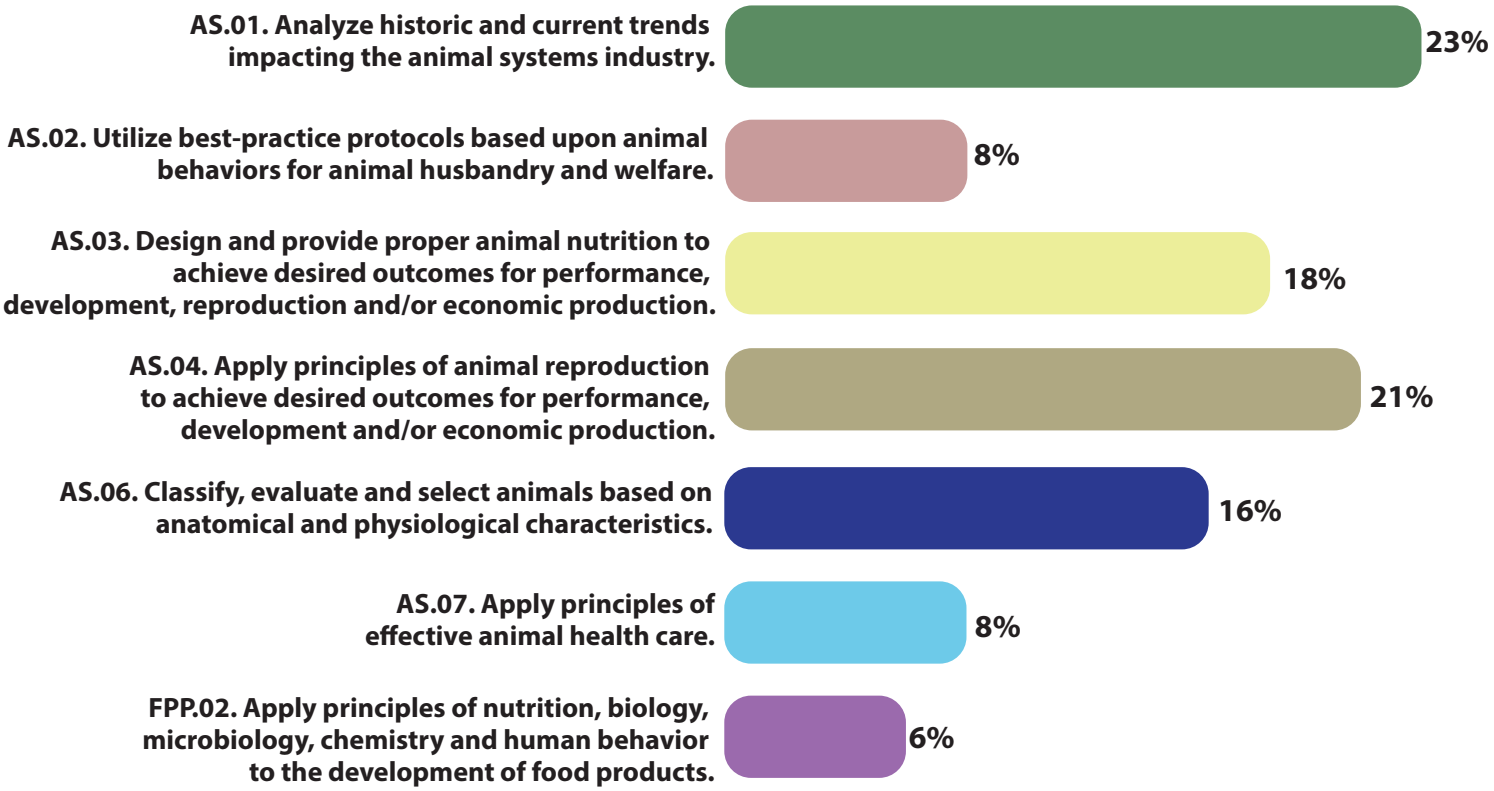
To prepare your students for the assessment, please review the ASA End-of-Course Assessment Blueprint on the CASE 4 Learning website. This blueprint identifies the Essential CASE Concepts and Performance Objectives that are assessed. Before taking the exam, students should have completed the CASE Activities, Projects, and Problems aligned to these Essential Concepts and Performance Objectives.

Written Assessment

This written assessment consists of questions to measure an individual's factual theoretical knowledge.

Administration Time: 1 hour
Number of Questions: 50
Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered



Specific Competencies and Skills Tested in this Assessment

AS.01. Analyze historic and current trends impacting the animal systems industry.

- AS.01.01 Evaluate the development and implications of animal origin, domestication, and distribution on production practices and the environment.
- AS.01.02. Assess and select animal production, marketing, and management methods based upon effectiveness and potential social and environmental impacts.
- AS.01.03. Analyze laws and sustainable practices that impact animal agriculture from a local, tribal, state, national, and global perspective.

AS.02. Utilize best-practice protocols based upon animal behaviors for animal husbandry and welfare.

- AS.02.01. Explain management techniques that ensure animal welfare.

AS.03. Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.

- AS.03.01. Analyze the nutritional needs of animals.
- AS.03.02. Analyze feed rations and assess if they meet the nutritional needs of animals.

AS.04. Apply principles of animal reproduction to achieve desired outcomes for performance, development and/or economic production.

- AS.04.01. Evaluate animals for breeding readiness and soundness.
- AS.04.02. Apply scientific principles to select and care for breeding animals.
- AS.04.03. Apply scientific principles to animal breeding.

AS.06. Classify, evaluate and select animals based on anatomical and physiological characteristics.

- AS.06.02. Apply principles of comparative anatomy and physiology to uses within various animal systems.

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Specific Standards and Competencies (continued)

AS.07. Apply principles of effective animal health care.

- AS.07.01. Design programs to prevent animal diseases, parasites, and other disorders and ensure animal welfare.

FPP.02. Apply principles of nutrition, biology, microbiology, chemistry and human behavior to the development of food products.

- FPP.02.03. Apply principles of human behavior to develop food products to provide a safe, wholesome, and nutritious food supply for local and global food systems.

Sample Questions

Choose which product is derived from sheep.

A. Lanolin
B. Insulin
C. Leather
D. Gum

An animal producer is in a position to prevent misconceptions about animal agriculture. Choose the best way.

A. Educate the public about agricultural practices.
B. Do not let any visitors on his farm property.
C. Punish any worker who abuses animals, but do not report it.
D. Know his practices but do not claim to understand other practices.

What best describes cellular respiration in animal cells?

A. Converting glucose and oxygen into usable energy
B. Breathing in oxygen and breathing out carbon dioxide
C. Converting glucose and carbon dioxide into usable energy
D. Breathing in oxygen and converting it into glucose

Which is the correct flow of food movement through the ruminant stomach?

A. Abomasum, omasum, rumen, reticulum
B. Omasum, reticulum, rumen, abomasum
C. Rumen, reticulum, abomasum, omasum
D. Rumen, reticulum, omasum, abomasum

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Sample Questions (continued)

What is the primary function of the female reproductive system in mammals?

A. To sustain an embryo until parturition.
B. To accept the deposit of sperm cells.
C. To produce viable eggs.
D. To feed a baby until weaning.

What is the ratio of possible phenotypes in a dihybrid heterozygous cross?

A. 9:3:3:1
B. 1:1
C. 3:1
D. 4:4:4:4

Why is it important to recognize the signs of good health?

A. Signs of illness can be subtle unless you are aware of unhealthy signs.
B. To help diagnose disease.
C. Signs of health can lead to causes of diseases.
D. To determine a health management plan.

What drives the production and processing of animal products?

A. Consumer demand
B. Availability of resources
C. Expenses of production
D. Ability to produce specific products