NOCTI
Partner Credential Blueprint

Principles of Agricultural Science – Plant End-of-Course Assessment (ASP EoC)

Test Code: 9864/9214/ Version: 01

General Assessment Information

Blueprint Contents

General Assessment Information
Written Assessment Information
Specific Competencies Covered in the Test
Sample Written Items

Test Type: The CASE Principles of Agricultural Science – Plant (ASP) End-of-Course Assessment is based on CASE Principles of Agricultural Science—Plant 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.

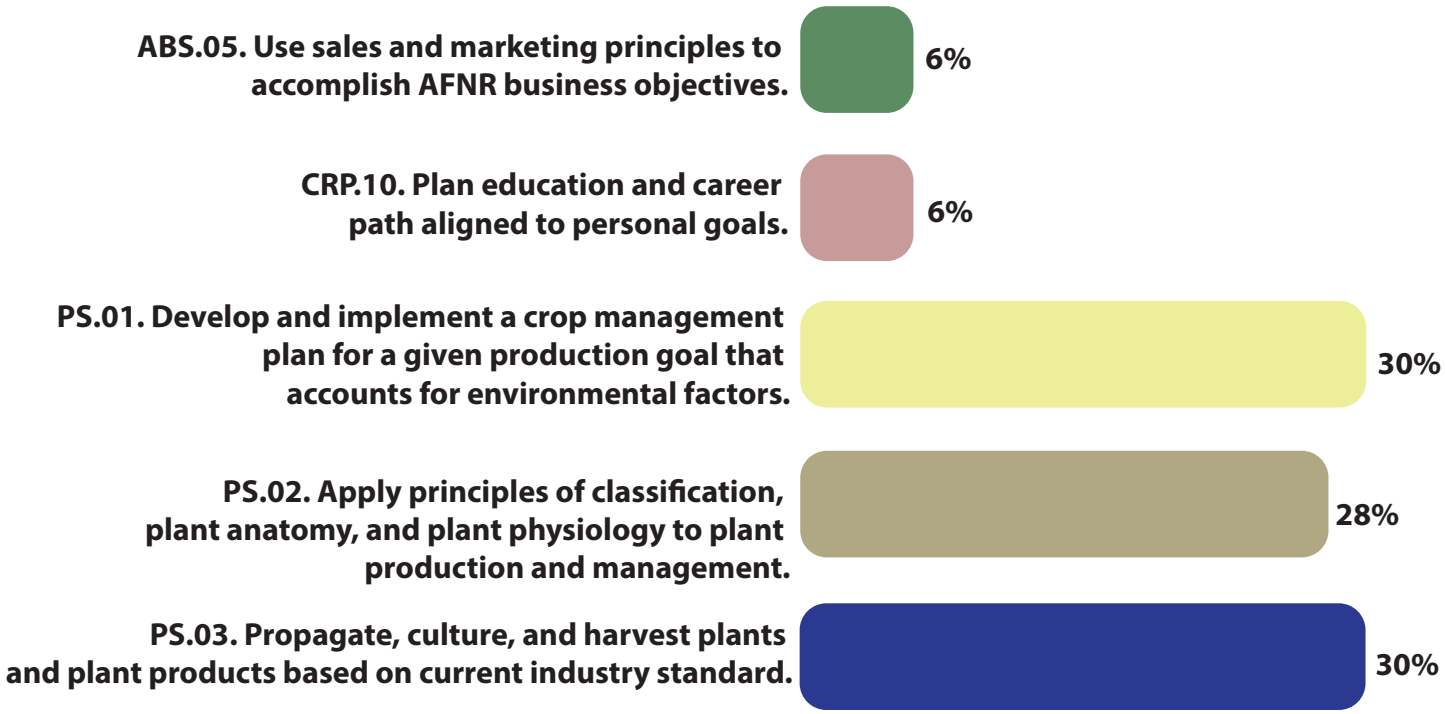
To prepare your students for the assessment, please review the ASP End-of-Course Assessment Blueprint on the CASE 4 Learning website. This blueprint identifies the Essential CASE Concepts and Performance Objectives that are assessed. Before taking the exam, students should have completed the CASE Activities,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

ABS.05. Use sales and marketing principles to accomplish AFNR business objectives.

- ABS.05.03. Assess marketing principles and develop marketing plans to accomplish AFNR business objectives.

CRP.10. Plan education and career path aligned to personal goals.

- CRP.10.01. Identify career opportunities within a career cluster that match personal interests, talents, goals and preferences.

PS.01. Develop and implement a crop management plan for a given production goal that accounts for environmental factors.

- PS.01.01. Determine the influence of environmental factors on plant growth.
- PS.01.02. Prepare and adjust growing media for use in plant systems.
- PS.01.03. Demonstrate planting techniques and create the conditions needed for seed germination.
- PS.01.04. Develop and implement a nutrient management and/or fertilizer plan for specific plants or crops.

PS.02. Apply principles of classification, plant anatomy, and plant physiology to plant production and management.

- PS.02.01. Classify plants according to taxonomic systems.
- PS.02.02. Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems.
- PS.02.03. Apply knowledge of plant physiology and energy conversion to plant systems.

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Specific Standards and Competencies (continued)

PS.03. Propagate, culture, and harvest plants and plant products based on current industry standard.

- PS.03.01. Demonstrate plant propagation techniques in plant system activities.
- PS.03.02. Develop and implement a management plan for plant production.
- PS.03.03. Develop and implement a plan for integrated pest management for plant production.
- PS.03.04. Apply principles and practices of sustainable agriculture to plant production.

Sample Questions

A homeowner will purchase flowering plants from the landscape industry for what purpose?

A. They find flowering plants for their woody material.
B. They use flowering plants to add aesthetic value to their home.
C. They use a majority of flowering plants for fruit production.
D. All of the above are common uses for flowering plants.

What test is used to determine the presence of clay while determining soil texture?

A. Filter test
B. Ribbon test
C. Conductivity test
D. pH test

Which of the following is an example of an inorganic material used in potting media?

A. Lime
B. Rockwool
C. Peat moss
D. Softwood bark

What is the specialized plant tissue which carries water throughout the plant?

A. Phloem
B. Xylem
C. Hardwood
D. Cambium

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Sample Questions (continued)

What type of classification system is a formal, consistent way to classify plants?

A. Taxonomic
B. Growth habit
C. Use
D. Growing requirements

If you wanted to place nutrients in such a way to maximize uptake by a plant, where would you apply the nutrients?

A. Below the soil surface
B. Directly on the leaves
C. In the air surrounding the plant
D. On the soil surface

How many cells form during meiosis?

A. 1
B. 2
C. 4
D. 8

Which process is the first to stop when root and stem damage occurs?

A. Translocation
B. Photosynthesis
C. Cellular respiration
D. Transpiration

Environmental conditions are most controlled in a:

A. Greenhouse hydroponic system
B. Outdoor hydroponic system
C. Traditional greenhouse cropping system
D. Traditional outdoor cropping system