

Northwest Arkansas Community College
(Science and Mathematics Division)

Discipline Code

AGRN

Course Number

2101L

Course Title

Crop Science Laboratory

Catalog Description

A series of laboratory experiments designed to reinforce principles of plant growth and development, reproduction, classification, and utilization of crops. Emphasis is placed on major crop plant species. Three hours lab weekly.

Prerequisites/ co-requisites

None. Strongly recommended: BIOL 1544 Principles of Biology I (or its equivalent) with a grade of C or better. Co-requisite AGRN 2103.

Credit Hours

1 credit hour

Contact hours

45 lab contact hours

Load hours

2 load hours

Semesters Offered

Fall

ACTS Equivalent

None

Grade Mode

A-F

Learning Outcomes

Students completing this course will:

- Identify nomenclature, growth stages, and anatomy of different major agronomic crop species.
- Identify possible solutions for agronomic or environmental problems
- Evaluate basic management systems to aid in good decision making for the environment and production.
- Use scientific thinking and process skills through laboratory activities and group interaction.

General Education Outcomes Supported

Students develop higher-order thinking skills.

Standard Practices

Topics list

- Importance of Crop Plants for food, Feed, Fiber, and Fuel
- Origin, Classification, and Importance of Major Field Crops
- Crop Growth and Development
- Crop Physiology
- Crop Environmental Factors
- Agronomic and Environmental Problems
- Integrated Pest Management
- Cropping Systems and Practices
- Crop Breeding and Improvement
- Sustainable production

Learning activities

- Courses must, at a minimum, cover the core learning outcomes for each topic.
- Laboratory exercises should include microscopy, plant anatomy, morphology, identification, physiology, and crop usage.

Assessments

- Evaluating general higher level thinking skills will be developed through activities such as: setting up experiments in lab, involving evaluation of technique and procedure as well as results. One laboratory write-up is required during the semester.

Grading guidelines

- A minimum of 70% of the grade must be proctored, supervised, or otherwise verified.

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