

Course Code: GIS 111

Course Title: Applied Geographic Information Systems

Department: Agricultural Technologies

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 01.0201

Repeatability: 0

Credit Hours

Catalog Notation: 3-0-3

Credit Hour Distribution:

Lecture: 3

Lab: 0

Clinical: 0

Total: 3

General Course Information

Catalog Description

GIS application areas, both present and future; toxic materials, traffic flow, mining, forestry, agriculture, natural resources, energy, and communication; semester-long application project of student's choice developed on computer.

General Course Objectives

Students will acquire skills and understand application of the theory, function, and applications of geographic information systems (GIS).

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 098	Placement out of CCS 098	Placement into MAT 060

Prerequisites

Credit in GIS 110

Methods of Evaluation

The minimum methods of evaluation include: 3 hourly exams, 5 quizzes, 5 exercises, and a final examination.

Instructional Materials and Additional Supplies

None.

Course Content

General Learning Outcomes (GLOs)

- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.
- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Introduction to Applications of Geographic Information Systems (GIS)	1. Define course requirements, grade structure, and course outline. 2. Create a GIS project.	1	0	0
GIS Data Structures, Map Features, Attribute Tables, and Map Coverages	1. Create and evaluate a plan before starting a GIS project.	8	0	0
Automating Data, ArcView Fundamentals, and Adding Intelligence to a Map	1. Identify specific data, analytical functions, and products to be included in a GIS project.	8	0	0
ArcView Attribute Data	1. Define the basics of feature attribute tables. 2. Manage attribute data. 3. Identify and manage assigned tasks, including data file management and evaluation.	8	0	0
Maps	1. View maps. 2. Create and use lookup tables. 3. Create and use map annotation. 4. Produce computer-generated GIS queries with printed reports.	8	0	0
GIS project	1. Create a GIS project to the extent defined by the instructor.	12	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
45	0	0