SOUTHEAST COMMUNITY COLLEGE
COURSE SYLLABUS
ADVANCED TECHNOLOGIES & SKILLED TRADES
Precision Agriculture
Revision Date: August 2025

I. CATALOG DESCRIPTION

Course Number: **AGRI 1161**
Course Title Precision Technology
Prerequisite(s):

Catalog Description: Study agriculture that focuses on the application of technology and data-driven techniques to optimize agricultural practices.

Credit Hours: 3.0
Class Hours: 45
Lab Hours: 0
Total Contact Hours: 45

II. COURSE OBJECTIVES: *Course will:*

1) Explore the different technology tools used in precision agriculture.
2) Collect and archive yield data from SCC farming activities
3) Construct yield maps for management decisions
4) Demonstrate the effective use of precision agriculture mapping
5) Establish the use of software to create prescriptions for VRT
6) Demonstrate the ability to diagnosis and troubleshoot precision agriculture equipment
7) Explore different applications for using yield data and management decisions
8) Collect and analyze soil sampling from a technology aspect.
9) Compare history of precision agriculture to predict where it will advance into the future.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: Student will be able to:

1) Distinguish different types of software and how to utilize them.
2) Gather and explore current SCC data
3) Develop yield maps for management decisions
4) Display the effective use of precision agriculture mapping
5) Exhibit how to utilize software to create prescriptions for VRT
6) Validate their ability to apply precision agriculture equipment
7) Operate different applications for making management decisions
8) Apply soil sampling knowledge from a technology aspect.

GELO #3: Critical Thinking & Problem Solving

Critical thinkers have the ability to evaluate a problem or assumption and determine an appropriate course of action. They use reason and evidence to make judgments and decisions. Critical thinking and problem-solving skills rank highly among employer expectations.

Outcomes:

1) Collect, identify, interpret and analyze data.

IV. CONTENT/TOPICAL OUTLINE (*course outline may provide more detailed information)*

- **A.** Overview of Precision Agriculture
- **B.** Precision Agriculture Tools and Current Trends
- **C.** Yield Mapping
- **D.** Hardware Set-up
- **E.** Crop Scouting/Soil Sampling Tools

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): None

B. Other Resources:

None

VI. METHODS OF PRESENTATION/INSTRUCTION

Methods of presentation typically include a combination of the following:

a. Methods will include, but not limited to:
Lecture, slide and video presentations, research and writing assignments, field trips, and guest lectures and speakers.

VII. METHODS OF EVALUATION

Methods of evaluation typically include a combination of the following:

a. Quizzes, tests, and exams
b. Skills project and exam
c. Daily Evaluation
d. Participation

SCC STANDARD GRADING SCALE POLICY:

A+	**95-100**	**C+**	**75-79**
A	**90-94**	**C**	**70-74**
B+	**85-89**	**D+**	**65-69**
B	**80-84**	**D**	**60-64**
		F	**Below 60**

VIII. SPECIFIC COURSE REQUIREMENTS:

Successful completion of all exams, projects, and assignments.

a. Properly and safely operate all college tractors and equipment.
b. Utilize proper safety eyewear at all times in lab.