

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

I. CATALOG DESCRIPTION

Course Number: AGRI 1262
Course Title Advanced Precision Ag Hardware
Prerequisite(s):
or AGRI 1162
Co-prerequisite:

Catalog Description: A study of how to install, set-up, and troubleshoot precision hardware on machinery. Students will learn how to operate, maintain and calibrate machinery utilizing precision ag components.

Credit Hours: 2.0
Class Hours: 23
Lab Hours: 23
Total Contact Hours: Total Class + Lab Hours 46

II. COURSE OBJECTIVES: *Course will:*

1. Set up field monitors
2. Identify the different types of electrical connectors
3. Demonstrate electrical connector repair
4. Installation of Precision Hardware on machinery
5. Set up and operate machinery with precision ag components installed
6. Calibrate precision ag monitors
7. Troubleshoot basic problems with Precision components

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

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

- a. Install a monitor in a piece of farm machinery.
- b. Configure a precision monitor in a machine
- c. Troubleshoot problems that might arise while in the field with a monitor.
- d. Be able to repair basic electrical failures
- e. Properly repair an electrical connector

B. GENERAL EDUCATION LEARNING OUTCOMES

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. Synthesize information to arrive at reasoned solutions to problems.

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

- A. Understand the difference in Precision Hardware components
- B. Be able to set up monitors and install them
- C. Troubleshoot problems that may happen with Precision Hardware
- D. Calibration of precision ag hardware components

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): No Required Text

B. Other Resources:

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:

1. Presentation methods will include, but not limited to demonstrations, practice activities to develop proficiency and over the shoulder supervision and instruction.
2. Laboratory assignments and projects designed to develop design and problem-solving skills

VII. METHODS OF EVALUATION

Methods of evaluation typically include a combination of the following:

- A. Successful completion of daily projects
- B. Quizzes, papers, etc.
- C. Practical Exams

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:

- A. Successful completion of daily projects designed to develop specific skills which build upon one another
- B. Successful mastery of lab skills is essential in this class
- C. Students are responsible for backing up their own files onto their network drive and maintaining security.