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

I. CATALOG DESCRIPTION

Course Number: **AGRI 1162**
Course Title Precision Ag Hardware
Prerequisite(s)
or
Corequisite:

Catalog Description: **A** study of Agriculture Precision Hardware available in the agriculture industry. This course will teach you the concepts needed to gain an understanding of the functions of different precision components.

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

II. COURSE OBJECTIVES: *Course will:*

1. Identify the purpose and need for precision agriculture
2. Identify different types of agriculture hardware.
3. Identify the differences between precision hardware components
4. Explore the different applications of precision agriculture
5. Describe the theory of operation of various pieces of precision ag hardware
6. Expose students to different machine monitoring software systems
7. Identify different types and accuracy levels of GPS systems used in agriculture

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

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

a. Compare different manufacturer offerings of precision hardware systems
b. Explain the need and purpose of precision agriculture
c. Describe the GPS system utilized by precision agriculture
d. Articulate examples of precision hardware components being installed on agriculture equipment

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. Identify different types of monitors and the benefits of each type to a producer
B. Theory of operation of precision ag hardware components
C. Needs and benefits of precision agriculture

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.
B. Completion of daily assignments
C. Daily Participation
D. Quizzes and tests
E. 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.