

SOUTHEAST COMMUNITY COLLEGE
COURSE SYLLABUS
TRAN-WELDING-AG
Agriculture Management & Production Program
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. |