**SOUTHEAST COMMUNITY COLLEGE**
**COURSE SYLLABUS**
**TRAN-WELDING-AG**
**Agriculture Management & Production Program**
**Revision Date: August 2020**

**I.    CATALOG DESCRIPTION**

| | |
|---|---|
| **Course Number:** | **AGRI 2279** |
| **Course Title** | Precision Technology |
| **Prerequisite(s):** | AGRI 1171 or permission |

**Catalog Description:**    Study of precision agriculture technology using hardware and software applications.

| | |
|---|---|
| **Credit Hours:** | 2.0 |
| **Class Hours:** | 23 |
| **Lab Hours:** | 23 |
| **Total Contact Hours:** | Total Class + Lab Hours 46 |

**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.

**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, laboratory assignment and tasks, slide and video presentations, research and writing assignments, field trips, and guest lectures and speakers.

b.  Lab Activities

**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