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

I. CATALOG DESCRIPTION

Course Number: **AGRI 2233**
Course Title Planting & Tillage Equipment
Prerequisite(s): AGRI1131 or co-enrolled

Catalog Description: Study of tillage and planting equipment used in agriculture crop production. Operation, uses, maintenance, and field adjustment of equipment.

Credit Hours: 4.0
Class Hours: 45
Lab Hours: 45
Total Contact Hours: Total of Class + Lab Hours 90

II. COURSE OBJECTIVES: *Course will:*

a. Identify types of equipment used for planting and seeding.
b. Identify types of tillage systems.
c. Present information on the types of tillage equipment.
d. Demonstrate how to adjust and maintain planting and tillage equipment.
e. Demonstrate how to calculate machine field efficiency.
f. Identify precision farming technology used for planting and tillage.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

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

1. Calculate field efficiency and machine capacity for different agricultural equipment.
2. Demonstrate and present information on the types of machines for different tillage systems, methods and uses for each equipment.
3. Select, adjust, and operate equipment needed and used to prepare a seedbed for agronomic crops.
4. Calibrate, adjust, operate, and maintain row crop planter models and optional equipment used on planters.
5. Calculate the necessary horsepower requirements for different equipment used in planting and tillage equipment.
6. Utilize GPS and other specialized equipment.
7. Discuss the different types of tillage systems used in agriculture today.
8. View and discuss how machines are manufactured and marketed by visiting a manufacturing plant or farm show.

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) Collect, identify, interpret and analyze data.

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

a. Field Efficiency
b. Tillage Systems
c. Planters
d. Grain Drills
e. Disk Harrows
f. Adjustment & Calibration
g. Tractor Maintenance, Preparation, and Adjustment

V. INSTRUCTIONAL MATERIALS

A. Required Text(s):): Tillage FMO, *John Deere* 3rd Edition. Planting FMO, *John Deere* 3rd Edition

B. Other Resources:

Safety glasses, Calculator, notebook, protective clothing, tools

VI. METHODS OF PRESENTATION/INSTRUCTION

Methods of presentation typically include a combination of the following:

a. Presentation methods will include, but are not limited to: video presentations, research and writing assignments, lecture, problem solving, field trips, and guest lecturers and speakers.
b. Laboratory assignments and workshop activities
c. Operation and adjustment of equipment

VII. METHODS OF EVALUATION

Methods of evaluation typically include a combination of the following:

A. Quizzes, tests, and exams
B. Laboratory Exercises and Conduct
C. Daily Evaluation
D. Final Exam

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 all exams, homework, and other classroom assignments

b. Daily attendance of class sessions

c. Successful completion of laboratory and land lab assignments and operations

d. Student utilizing proper safety eye wear

e. Course grading will be based upon class, lab activities and assignments