SOUTHEAST COMMUNITY COLLEGE
COURSE SYLLABUS
TRAN-WELDING-AG
Agriculture Management & Production Program
Revision Date: August 2025

I. CATALOG DESCRIPTION

Course Number: AGRI 1164
Course Title Precision Ag Hydraulic Fundamentals
Prerequisite(s):

Catalog Description: The study of how hydraulic systems are integrated and utilized in the agriculture sector.

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

II. COURSE OBJECTIVES: *Course will:*

1. Explain the fundamentals of hydraulic systems
2. Instruct the students on hydraulic components and capabilities
3. Instruct students on how hydraulic components work together in a circuit
4. Expose students to common hydraulic schematics and their symbols

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

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

a. Explain the different types of hydraulic systems
b. Identify the applications of hydraulics in relation to agriculture
c. Explain how hydraulic systems are used to perform precision ag functions
d. Diagnose a basic hydraulic failure

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. Identify different types of hydraulic systems
B. Use and safety aspects of hydraulic systems
C. Hydraulic schematics and symbols
D. Hydraulic components and their uses

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