

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

I. CATALOG DESCRIPTION

Course Number: AGRI 1218
Course Title Basic Farm Engines
Prerequisite(s): none

Catalog Description: Principles of operation and care of diesel, gasoline, and LP gas engines. Parts identification and analysis of engine and parts failure. Tune-up of engines and familiarity with overhaul procedures.

Credit Hours: 3.0
Class Hours: 30
Lab Hours: 45
Total of Class + Lab Hours 75

COURSE OBJECTIVES: *Course will:*

1. Provide a basic understanding of farm engine design and functionality.
2. Provide a basic understanding of troubleshooting and repair.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

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

1. Demonstrate and utilize proper procedures for removal and disassembly of farm engines.
2. Identify and explain the major components and functions of each component and determine amount of wear, failure diagnosis, and needed repairs.
3. Identify and determine needed repairs, disassemble, and install new components.
4. Determine, by reading owner's manual, technical manual, repair manual, or visiting with professional technicians, the proper procedure for disassembly, installation and reassembly of engine components.

B. GENERAL EDUCATION LEARNING OUTCOMES

1. Problem Solving
The student will demonstrate the ability to define a problem, develop a plan to solve the problem, collect and analyze information, solve the problem, evaluate results, and define any need for further work.
(GELO 4)

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

1. Identification of engine components
2. Disassembly Procedures
3. Measurement
4. Reassembly Procedures
5. Cooling Systems
6. Fuel Systems

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): None

B. Other Resources:

Safety Glasses, Protective Clothing, Tools (see tool list)

VI. METHODS OF PRESENTATION/INSTRUCTION

Methods of presentation typically include a combination of the following:

- a. Laboratory assignments
- b. Field Trips
- c. Research from Technical Manuals

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination of the following:

- B. Skills projects
- C. Quizzes, tests, exams
- D. Daily Evaluation
- E. Engine Operation

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. Completion of Lab Project(s) assigned
- b. Weekly cleaning of shop and replacement of tools
- c. Utilizing own tools
- d. Utilizing proper safety eyewear
- e. Daily attendance of class
- f. Reassembly and operation of engine