



South Central College

MEAG 1700 Agricultural Industry Equipment

Course Outcome Summary

Course Information

Description This course covers theory and service competencies necessary to maintain small engines, gasoline-powered vehicles, and diesel powered vehicles. Students will gain an awareness of equipment maintenance programs. The course includes field trips and instruction in maintaining equipment found in feed mills, fertilizer plants, agricultural retail and input suppliers as well as grain elevators. The course will also cover crop protection equipment. Students will learn component parts and proper adjustment of particular service units. Machine adjustment maybe accomplished on demonstration units, operator manual examples or on actual industry equipment. Students will review safe operation and use of various industry equipment. 1 lecture , 2 Lab. credits.

Total Credits 3

Total Hours 80

Types of Instruction

Instruction Type	Credits/Hours
Community College	2

Pre/Corequisites

None

Institutional Core Competencies

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

1. Explain various equipment fuel systems.

Learning Objectives

- Troubleshoot fuel systems.
- Describe diesel fuel systems.
- Describe carburetion theory.
- Describe alternative fuel systems.

2. Review gasoline vehicle schedule maintenance items.

Learning Objectives

Identify four-stroke cycle operating principles.
Prepare company vehicle maintenance program.
Select farm/ vehicle tires.
Select fuels and lubricants.

3. Assemble and disassemble OHV small engine.

Learning Objectives

Complete disassemble and assemble engine lab.
Perform small engine tests.
Troubleshoot small engine problems.

4. Preform facility and equipment maintenance check list.

Learning Objectives

Review federal and state OSHA regulations
Adjust or calibrate equipment.
Prepare pest management equipment maintenance program.
Describe housekeeping and dust control.

5. Operate Agricultural Industry Equipment.

Learning Objectives

Operate forklift.
Prepare forklift/ skidsteer safe operation rules.
Operate truck and trailer assembly.
Operate various industry equipment.

6. Review agricultural supply input maintenance considerations.

Learning Objectives

Describe fertilizer safety considerations.

Describe fertilizer plant maintenance.
Describe feed mill maintenance.
Describe industry respiratory hazards.
Plan fire/emergency facility escape routes.

SCC Accessibility Statement

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: www.southcentral.edu/disability

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.