



Western Technical College

## 10006130 Agribusiness Equipment and Facilities

### Course Outcome Summary

#### Course Information

<b>Description</b>	This course will introduce the student to the function and operation of feed, fertilizer and chemical equipment. Industrial equipment observed will include sprayers, fertilizer applicators, loaders, fork trucks and other appropriate feed, fertilizer, dairy and livestock equipment and facilities.
<b>Career Cluster</b>	Agriculture, Food and Natural Resources
<b>Instructional Level</b>	Associate Degree Courses
<b>Total Credits</b>	2
<b>Total Hours</b>	54

#### Textbooks

No textbook required.

#### Program Outcomes

1. Interact as a professional in Agribusiness.
2. Investigate opportunities in Agribusiness.
3. Apply relevant technologies.
4. Apply economic and marketing strategies to Agribusiness Industry.
5. Develop an Agribusiness Management Plan.
6. Create a Crop Management Plan.
7. Create a Livestock Management Plan.

#### Course Competencies

##### 1. Investigate various livestock facilities.

###### Learning Objectives

- 1.a. Define concentrated animal feeding operation
- 1.b. Analyze appropriate housing design for dairy cows and calves.

- 1.c. Analyze appropriate housing options for the beef herd.
- 1.d. Analyze appropriate housing options for swine.
- 1.e. Analyze appropriate housing options for the small ruminant.
- 1.f. Analyze appropriate housing options for poultry.
- 1.g. Analyze appropriate housing options for horses.

**2. Investigate the latest dairy and livestock equipment**

**3. Analyze electricity use, safety, and the impact of stray voltage**

**4. Investigate grain and feed handling systems**

**Learning Objectives**

- 4.a. Describe different types of feeding systems
- 4.b. Describe different types of storage options for feed

**5. Characterize fires and fire safety issues for personal and business safety**

**6. Demonstrate sprayer calibration methods, processes, and application techniques**

**Learning Objectives**

- 6.a. Research the latest in liquid product application equipment technology
- 6.b. Identify major components of liquid product application equipment
- 6.c. Assess the drive line areas for maintenance or repair
- 6.d. Perform preventive maintenance on equipment
- 6.e. Explain spray nozzle tip size selection for type of application
- 6.f. Identify pump types used on sprayers
- 6.g. Determine the sprayer calibration through multiple processes

**7. Assess NH<sub>3</sub> attributes and safe handling**

**8. Correlate actual NH<sub>3</sub> application equipment components**

**9. Compare dry fertilizer application techniques, spread patterns, and equipment**

**Learning Objectives**

- 9.a. Research the latest in dry product application equipment technology
- 9.b. Identify major components of dry product application equipment
- 9.c. Identifies safety issues when working with dry chemicals
- 9.d. Determine spreader calibration through multiple processes
- 9.e. Assess the drive line areas for maintenance or repair
- 9.f. Perform preventive maintenance on equipment

**10. Perform safe operation procedures for skid steers**

**Criteria**

*You will know you are successful when*

- 10.1. you complete skid steer in-class training test
- 10.2. you perform a walk-around of vehicle pre-check
- 10.3. you demonstrate operation of a skid steer
- 10.4. you park vehicle safely

**Learning Objectives**

- 10.a. Review safe skid steer operation practices
- 10.b. Perform daily maintenance check
- 10.c. Practice operating skid steers
- 10.d. Demonstrate various control types

**11. Operate a tractor unit safely**

**Learning Objectives**

- 11.a. Start the tractor properly
- 11.b. Mount and dismount from the tractor safely
- 11.c. Drive the tractor forward and in reverse.
- 11.d. Couple and uncouple machinery from tractor.

