

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. AGRI

COURSE NUMBER: 2214

NUMBER OF CREDITS: 3

Lecture: 3 Lab: 0 OJT 0

Course Title:
Machinery Principles and Management

Catalog Description:
Machinery Principles and Management will cover the utilization of farm equipment from the purchasing of equipment and managing the costs to the operation and maintenance of agricultural equipment.

Prerequisites or Necessary Entry Skills/Knowledge:
None

FULFILLS MN TRANSFER CURRICULUM AREA(S)

- ☐ Goal 1: Communication: By meeting the following competencies:
- ☐ Goal 2: Critical Thinking: By meeting the following competencies:
- ☐ Goal 3: Natural Sciences: By meeting the following competencies:
- ☐ Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- ☐ Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- ☐ Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- ☐ Goal 7: Human Diversity: By meeting the following competencies:
- ☐ Goal 8: Global Perspective: By meeting the following competencies:
- ☐ Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- ☐ Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered
Machine Performance
Power Performance
Machine Costs
Grain Harvesters
Forage Harvesters
Tillage Operations
Seedbed Preparations
Chemical Applications
Grain Dryers
Material Handling

Student Learning Outcomes
Calculate machine capacities
Calculate horse power performance of tractors

Calculate fuel efficiency or tractors.
Identify the parts and explain the functions of grain harvesters.
Complete the settings on a combine.
Calculate field loss
Explain the functions of forage harvesters.
Compare tillage operations and advantages/disadvantages
Describe the different types of chemical/fertilizer applicators.
Calculate chemical applications
Calculate drying efficiency
Calculate auger efficiency

Is this course part of a transfer pathway: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Revised Date: 6/2021