



MASTER COURSE OUTLINE

COURSE TITLE: Diagnostics

Dept.: Agricultural Mechanics

CIP Code: 01.0205

CREDITS: 8

Total Contact Hrs Per Qtr.: 165

Distribution Design:

Course Num: 291

Intent Code:

Lecture Hrs: 11

DATE: 5/25/20

(Formerly:

Program Code: 123

Lab Hrs: 154

Other Hrs:

Prepared By: Brett Iksic

COURSE DESCRIPTION (as it will appear in the catalog)

This course is the capstone for the Agricultural Mechanics Technology program. Students will employ skills developed in previous classes to test and diagnose hydraulic, electrical, and mechanic issues in agricultural equipment. Lab time will closely simulate real-world agricultural mechanic work. Successful completion of this course will require adept troubleshooting, communication, time-management, record-keeping skills. This course will put the student critical-thinking and problem-solving capacities to the test.

PREREQUISITES: Students are only eligible to take this class in his or her final quarter of Agricultural Mechanics coursework.

TEXTBOOK GUIDELINES: Textbook determined by Agriculture Mechanics Faculty (Example: Service Manual Rowtrac 350, 400, 450, 500, Steiger 350, 400, 450, 500, 550, 600, Item Number 47488212).

STUDENT LEARNING OUTCOMES: *Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills.*

1. Differentiate between hydraulic, electrical, and mechanical issues.
2. Perform diagnoses through the use of appropriate resources.
3. Support diagnoses with accurate record keeping.
4. Implement troubleshooting steps.
5. Perform industry standard repairs.
6. Demonstrate time-management skills by completing projects in a timely manner.
7. Demonstrate strong work ethic as a team member and individually.

GENERAL EDUCATION/RELATED INSTRUCTION OUTCOMES

3. Students will be able to demonstrate teamwork, ethics, safety awareness, and/or workplace specific skills related to agricultural mechanics.

COURSE CONTENT OUTLINE

1. Identifying Complaint
 - Verifying and duplicating
 - Intermittent issues
2. Diagnose
 - Plan and testing
 - Record keeping
3. Root Cause
 - Underlying Issues
4. Correction
 - Repairs
5. Writing Report
 - Complaint, cause, correction

DEPARTMENTAL GUIDELINES (*optional*)

This course will only be offered with the grading option of Pass/Fail.

DIVISION CHAIR APPROVAL

DATE