**BARTON COMMUNITY COLLEGE**

##### COURSE SYLLABUS

## I. GENERAL COURSE INFORMATION

Course Number: CNHI 1132

Course Title: Farm Machinery Repair

Credit Hours: Variable 1-3

Prerequisites: None

Division/Discipline: Workforce Training and Com. Education/CNH Service Training

Course Description: This course is a study of the theory, operations, repair, and adjustment of machines used on a farm operation.

Variable Credit: If the student enrolls in a 4-day face to face diagnostics class, then it is a 2 credit hour course. If the student enrolls in a 2-day product update class it is a 1 credit hour course, and if the student enrolls in the 6-week online and 2-day face to face class, it is a 3 credit hour course. All sections of the course cover the same material.

## II. INSTRUCTOR INFORMATION

## III. COLLEGE POLICIES

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

The College reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage).

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at disabilityservices@bartonccc.edu.

## IV. COURSE AS VIEWED IN THE TOTAL CURRICULUM

This course is one in a series of Case-New Holland Industrial Service Training courses. This course is not open to the general public, and is not designed as a transfer course.

This course will cover theory, operation, diagnosis, and repair of agricultural machinery.

# **V. ASSESSMENT OF STUDENT LEARNING**

Barton Community College assesses student learning at several levels:  institutional, program, degree and classroom.  The goal of these assessment activities is to improve student learning.  As a student in this course, you will participate in various assessment activities.  Results of these activities will be used to improve the content and delivery of Barton’s instructional program.

Course Outcomes, Competencies, and Supplemental Competencies:

1. Determine whether a problem with a piece of agricultural equipment is hydraulic, electrical, mechanical, or operator error.
2. Locate, identify, and describe the operation of given hydraulic components both on the combine and on the bench.
3. Demonstrate an understanding of each main valve hydraulic function and reel drive circuit to accurately diagnose and repair malfunctions within each hydraulic circuit.
4. Locate, identify, and describe the purpose of given electrical components both on the combine and one the bench
5. Demonstrate the ability to formulate a plan to affect repair of the machine.
6. Locate electrical schematic symbols using provided schematics to the extent that all symbols can be identified.
7. Demonstrate all calibration processes as outlined in the service training manual, operator’s manual, and service repair manual.
8. Demonstrate the proper use of a Digital Volt-Ohm Meter (DVOM) in testing of electrical components and circuits.
9. Retrieve diagnostic codes, both active and historical, and utilize that information for diagnostic purposes.
10. Locate hydraulic symbols on a schematic and identify function and operation of the symbol.
11. Demonstrate the proper use of hydraulic diagnostic equipment to accurately check, diagnose, and set hydraulic system pressures and flows.

## VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

## TEXTBOOKS AND OTHER REQUIRED MATERIALS

### REFERENCES

### METHODS OF INSTRUCTION AND EVALUATION

## ATTENDANCE REQUIREMENTS

## COURSE OUTLINE