**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

**I. GENERAL COURSE INFORMATION**

Course Number: CNHI 1193

Course Title: Combine Productivity

Credit Hours: 1-3 variable credit

Prerequisites: None

Division/Discipline: Workforce Training and Community Education-Case/New Holland

Course Description: This course is designed to acquaint the technician with the theory of operation and adjustments necessary to efficiently harvest crops with a combine.

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 is designed to acquaint the technician with the theory of operation and adjustments necessary to efficiently harvest crops with a combine. The technician will have sufficient shop time to become familiar with the adjustments and calibrations.

**V. ASSESSMENT OF STUDENT LEARNING**

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

Course Outcomes, Competencies, and Supplemental Competencies:

1. Identify and understand model year changes and updates to the combines.
2. Locate major components, state their function and how they are used on the combine.
3. Define and demonstrate how to update and install the latest cab display firmware.

1. Understand the header, feeder, stone trap, and associated gearboxes and how they function in the material handling process.
2. Demonstrate the diagnosing, testing, and repair feeder gearbox.
3. Use machine calibration procedures to correctly configure and calibrate sensors associated with the feeder and header.
4. Understand the separating and threshing components of the combine.
	* 1. Define the components and their applications in different crops.
		2. Demonstrate the diagnosing and repair of the electronic actuators in the threshing and separation system.
		3. Demonstrate the proper calibration of the self-leveling cleaning system.
5. Understand the clean grain handling and residue management systems.
	* 1. Define the components and options associated with different crops.
		2. Demonstrate the calibration procedures and adjustments for different crops.
6. Understand combine grain loss, and make adjustments to eliminate such loss.
	* 1. Define the 4 areas of grain loss as it pertains to the harvesting procedure.
		2. Demonstrate the adjustments necessary to the different areas of the machine based on crop conditions.

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

**VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS**

**VIII. REFERENCES**

**IX. METHODS OF INSTRUCTION AND EVALUATION**

**X. ATTENDANCE REQUIREMENTS**

 **XI. COURSE OUTLINE**