

Course Information Form (CIF)

Course Code: CNH 255

Course Title: Advanced CNH Hydraulic Systems

Department: Agricultural Technologies

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 47.0605

Repeatability: 0

Credit Hours

Catalog Notation: 2-2-3

Credit Hour Distribution:

Lecture: 2

Lab: 2

Clinical: 0

Total: 3

General Course Information

Catalog Description

Hydraulic and hydrostatic systems used on Case New Holland (CNH) equipment; diagnosing and testing to solve system problems; interpretation of fluid hydraulic schematic and diagrams; electronic and computer-controlled systems.

General Course Objectives

- Learn advanced troubleshooting and diagnostic skills as they apply to hydraulics and hydrostatic systems.
- Learn how to troubleshoot open center, closed center, and pressure and flow compensating hydraulic systems.
- Component disassembly, parts evaluation, and component reassembly.

Minimum Placement Levels

English

None

Reading

None

Math

None

Prerequisites

Credit in CNH 155

Methods of Evaluation

Students will be given 12 objective exams, 12 lab practicals, and 8 performance exams.

Instructional Materials and Additional Supplies

No textbook required. Uses manufacturers' tech manuals.

Students will need the required tool sets for the CNH Service Technician program.

Course Content

General Learning Outcomes (GLOs)

- Critical Thinking and Information Literacy: Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.
- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.
- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Open Center Hydraulic System Diagnosis	1. Describe and demonstrate how to troubleshoot open center systems, locate points, and install test equipment.	6	4	0
Closed Center Hydraulic System Diagnosis	1. Describe and demonstrate how to troubleshoot closed center systems, locate points, and install test equipment.	6	4	0
Pressure and Flow Compensating Hydraulic System Diagnosis	1. Describe and demonstrate how to troubleshoot pressure and flow compensating systems, locate points, and install test equipment.	6	4	0
Hydraulic Schematics	1. Identify standard hydraulic symbols, read detailed schematics, and identify subsystems in schematics.	11	0	0
Component Evaluation	1. Describe and demonstrate how to take pumps, motors, valves, and couplers apart; evaluate component parts to determine if they need replacement. 2. Demonstrate proper reassembly procedures for components disassembled.	1	18	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0