Course Information Form (CIF)

Course Code: CNH 216

Course Title: CNH Equipment Air Conditioning I

Department: Agricultural Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 47.0605
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-0-2
Credit Hour Distribution:

Lecture: 2	Lab: 0	Clinical: 0	**Total: 2**

General Course Information

Catalog Description

Principles and theory of air conditioning systems on agricultural heavy equipment and trucks.

General Course Objectives

Students will learn the principles behind the theory and application of mobile refrigeration and climate control systems on CNH equipment.

Minimum Placement Levels

English	Reading	Math
Placement into ENG 098	Placement into CCS 098	Placement into MAT 060

Prerequisites

Credit in CNH 131

Methods of Evaluation

The minimum number of evaluation methods include: 8 objective quizzes and 2 exams.

Instructional Materials and Additional Supplies

Auto Heating and Air Conditioning (textbook), 5th edition, Chris Johanson. 978-1-61960-763-7
Auto Heating and Air Conditioning (workbook), 5th edition, Chris Johanson. 978-1-60525-014-4
Students will need the required tool sets for the CNH Service Technician program.

Course Content

General Learning Outcomes (GLOs)

- 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
Principles and Theories of R-1234yf	1. Restate the operating principles and theory of R-1234yf systems.	9	0	0
Principles and Theories of R-134A	1. Restate the operating principles and theory of R-134A systems.	9	0	0
Component Identification	1. Recite all of the components in both R-1234yf and R-134A systems. 2. Describe what components can be repaired versus replaced. 3. Show an ability to recognize component differences between R-1234yf and R-134A.	5	0	0
Retrofitting Systems	1. Evaluate an R-1234yf system to determine when to recommend a retrofit to R-134A. 2. Describe how to retrofit a system. 3. Describe which components need to be replaced.	7	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	0	0