Course Information Form (CIF)

Course Code: HVC 136
Course Title: HVAC Service I

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 47.0201
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-2-3
Credit Hour Distribution:

Lecture: 2	Lab: 2	Clinical: 0	**Total: 3**

General Course Information

Catalog Description

Introductory diagnosis and repair practices for common residential and light commercial HVAC systems.

General Course Objectives

- The student will select and apply appropriate diagnostic methods to common residential and light commercial HVAC systems.
- The student will perform appropriate electrical and mechanical repairs based on diagnostic data.

Minimum Placement Levels

English	Reading	Math
None	None	None

Prerequisites

Credit or concurrent enrollment in ELT 150

Methods of Evaluation

At least 6 quizzes, 1 midterm exam, 1 final exam, and at least 10 labs. In-class and/or homework assignments recommended.

Instructional Materials and Additional Supplies

Modern Refrigeration and Air Conditioning, 22nd Ed. Althouse. Goodheart-Wilcox Publishing. ISBN#979-8888174890. Print Text

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
AC System Science and Operation	1. Identify AC system components. 2. Explain normal operation of each component. 3. Evaluate AC system sequence of operation. 4. Discuss electrical troubleshooting procedures for AC systems.	6	8	0
Heating System Science and Operation	1. Identify heating system components. 2. Explain normal operation of each component. 3. Evaluate heating system sequence of operation. 4. Discuss electrical troubleshooting procedures for heating systems.	6	7	0
Conventional AC Diagnostics	1. Explain refrigerant troubleshooting. 2. Explain electrical troubleshooting for air conditioning systems. 3. Identify refrigerant issues caused by electrical problems. 4. Identify air flow problems in air conditioning systems and their impacts.	9	8	0
Conventional Heating Diagnostics	1. Explain heating troubleshooting. 2. Explain electrical troubleshooting for heating systems. 3. Identify fuel issues caused by electrical problems. 4. Identify air flow problems in heating systems and their impacts.	9	7	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0