

**J. Sargeant Reynolds Community College  
Course Content Summary**

**Course Prefix and Number:** AUT 236      **Credits:** 4

**Course Title:** Automotive Climate Control

**Course Description:**

Introduces principles of refrigeration, air conditioning controls, and adjustment and general servicing of automotive air conditioning systems. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. 4 credits

**General Course Purpose:**

This course provides instruction on the operation, inspection, testing, diagnosis, and repair of heating and air conditioning systems. Safe handling of refrigerant is stressed as the student learns testing methods and repair techniques on modern mobile heating ventilation and air conditioning (HVAC) systems.

**Course Prerequisites and Co-requisites:**

Prerequisites: AUT 149 and AUT 197

**Student Learning Outcomes:**

Upon completing the course, the student will be able to

- Identify, handle, and dispose of refrigerant related to air conditioning service operations
- Inspect, diagnose and service engine cooling systems and components
- Inspect, diagnose, and service air conditioning systems and components
- Diagnose and service of HVAC-related systems

**Major Topics to Be Included:**

- Refrigerant Handling
- Engine Cooling and Passenger Heating
- Ventilation Diagnosis and Repair
- Air Conditioning (A/C) Performance Checks
- Auxiliary A/C Systems Diagnosis and Repair
- Hybrid Vehicle A/C Systems
- Automatic Climate Controls and Climate Controlled Seats

**Effective Date/Updated:** January 19, 2023