

Course Objectives/Course Outline
Spokane Community College

Course Title: Theory of Heating & Air Conditioning

Prefix and Course Number: AUTO 119

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Identify the proper diagnosis and repair procedures for a variety of automotive heating systems.
- Identify the proper diagnosis and repair procedures for a variety of automotive air conditioning systems and their components.

Course Outline:

- I. Air Conditioning
 - A. Principles of Refrigeration
 - B. Refrigerant and Refrigeration Oil
 - C. The Refrigeration Circuit
 - D. Moisture and Moisture Removal
 - E. Service Valves
 - F. Manifold and Gauge Set
 - G. Leak Detectors
 - H. The Receiver/Dehydrator
 - I. the Thermostatic Expansion Valve
 - J. Pressure Controls
 - K. Evacuation and Charging System
 - L. Replacing the Compressor Shaft Oil Seal (York and Tecumseh Compressors)
 - M. Replacing the Compressor Shaft Oil Seal (Chrysler Air-Temp)
 - N. Replacing the Seal on Delco Air Compressors, A-6 and DA-6
 - O. Checking and adding oil, Delco Air Six-Cylinder
 - P. Rebuilding the Valves-in-receiver (VIR)
 - Q. Heating Systems
 - R. Air Management Systems
 - A. aust Pipes