

**Course Objectives/Course Outline**  
**Spokane Community College**

---

---

**Course Title: Refrigeration Service Procedures**

**Prefix and Course Number: AIRC 204**

---

**Students will explore techniques for proper refrigerant handling, recovery, recycling, reclaim, and evacuation. Students will also prepare to take their EPA Refrigerant Handling License. Other topics include brazing, leak testing, and proper system charging.**

**Course Learning Outcomes:**

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

- Describe Ozone Depletion and Global warming
- Discuss how CFCs Deplete the Earth's Ozone layer
- Discuss refrigerant Blends
- Discuss refrigerant oils and their applications
- Discuss EPA regulations as they relate to refrigerants
- Define The Terms recover, recycle, reclaim.
- Describe methods of recovering refrigerants
- Identify a DOT approved recovery cylinder
- Use refrigerant leak detectors
- Understand appropriate evacuation technique
- Describe procedures and equipment used for Leak detection
- Be prepared for the EPA exam.

**Course Outline:**

**I. Recover Recycle Reclaim**

- A. Type II Appliances
- B. Type II Appliances
- C. Type III Appliances
- D. Core Refrigerant Chemistry and Applications
- F. Legislation and regulation

**II. Evacuation**

- A. Purpose of system evacuation
- B. Theory of evacuation
- C. Measuring Vacuum
- D. The vacuum Pump
- F. Deep vacuum
- G. Triple evacuation
- H. Leak detection
- K. Evacuation procedures

**III. Brazing**

- A. Brazing processes and procedures for refrigerant piping
- B. Brazing techniques and Safety
- C. Brazing Tips