

Course discipline/number/title: AMT 2770: Heating and Air Conditioning**A. CATALOG DESCRIPTION**

1. **Credits:** 3
2. **Hours/Week:** 5
3. **Prerequisites (Course discipline/number):** None
4. **Other requirements:** None
5. **MnTC Goals (if any):** NA

B. COURSE DESCRIPTION: This course covers automatic temperature control systems operation, testing, and repairs of vacuum and electrical controls, airflow distribution, and heater system controls. It also will cover the diagnosis and repair of air condition components as well as types of refrigerants used.**C. DATE LAST REVISED (Month, year):** February, 2022**D. OUTLINE OF MAJOR CONTENT AREAS:**

1. Automatic Controls
2. Manual Controls
3. Heating System
4. Cooling System
5. Refrigerant Handling
6. Refrigerant Types
7. Electronic Controls
8. Reclaiming and Recharging

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Diagnose and repair heating and air conditioning.
2. Use proper safety practices to reclaim and recharge air conditioners.
3. Identify types of cooling systems.
4. Identify types of refrigerants.
5. Replace components.

F. LEARNING OUTCOMES (MNTC): NA**G. METHODS FOR EVALUATION OF STUDENT LEARNING:** Methods may include but are not limited to:

1. Shop Projects
2. Lab Worksheets
3. Tests

H. RCTC CORE OUTCOME(S). This course contributes to meeting the following RCTC Core Outcomes:
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.**I. SPECIAL INFORMATION (if any):** None