

Heating, Ventilation and Air Conditioning, Certificate

MECHANIC I

School of Technology

Program Description

The Heating, Ventilation and Air Conditioning Mechanic I Certificate is designed to prepare students for entry-level positions in the HVAC field. The class and lab experiences will help the student develop skills to work with the installation and service of heating and cooling systems, air conditioners and heat pumps, basic wiring, gas and oil furnaces, and refrigerant recovery techniques.

Career Opportunities

Graduates of this program can obtain jobs as service technicians, installers, maintenance technicians or troubleshooters.

Program Learning Outcomes

Upon successful completion of this degree, students will be able to:

- Demonstrate the skills, professional values and ethics necessary to be employed in the heating, ventilation and air conditioning field.
- Demonstrate effective oral and written communication skills with customers, salespersons, and fellow employees.
- Describe the general principles and terminology of HVAC systems.
- Identify and interpret occupational health and safety standards in the entry-level occupation.
- Demonstrate the ability to utilize direct digital controls
- Design, install and maintain heating and cooling equipment.
- Understand the operation of gas and oil furnaces.
- Build and maintain air conditioning, gas furnace and oil burning systems.
- Demonstrate the ability to utilize direct digital controls.
- Understand and implement heating and air conditioning systems that utilize natural technologies.
- Build and maintain air conditioning and heat pump equipment.

| Sugg. Term | Seq # | Course ID | Course Title | Cr. | Prereq/Coreq(Co) | Options Available |
|------------|-------|-----------|--|-----|------------------|-------------------|
| Fall | 1 | PDV 101 | First Year Seminar | 1 | | |
| | 2 | HAC 101 | Introduction to Refrigeration/Air Conditioning | 4 | | |
| | 3 | HAC 240 | HVAC Duct Fabrication | 2 | | |
| | 4 | HAC 175 | Direct Digital Controls | 2 | | |
| | 5 | HAC 250 | Gas and Oil Heating Technology | 4 | | |
| | 6 | HAC 256 | Geothermal and Solar Technology | 3 | | |

Minimum Program Credits

16

HVAC1