Heating, Ventilation and Air Conditioning, Certificate

MECHANIC II

School of Technology

Program Description

The Heating, Ventilation and Air Conditioning Mechanic II Certificate is designed to prepare students for entry-level positions in the HVAC field. In the classroom and through lab experiences the student will learn the types of refrigerants used in the industry, the basic refrigeration cycle, how to fabricate ductwork and how to utilize control circuitry. The students will also learn to install and service hydronic systems.

Career Opportunities

Graduates of this program can obtain jobs as ductwork fabricators, service technicians, installers, maintenance technicians and/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.
- Demonstrate the ability to read blueprints for residential and commercial structures.
- Identify and interpret occupational health and safety standards in the entry-level occupation.
- Read and interpret electrical ladder and pictorial diagrams to wire and troubleshoot HVAC systems.
- Design, install and maintain hydronic heating and cooling equipment.
- Use control logic to find and repair electrical problems in air conditioning and heat pump systems.
- Identify and demonstrate the proper use of HVAC hand tools, meters and gauges.
- Become certified in EPA Refrigerant Handling by preparing to pass the EPA Refrigeration Exam.
- Demonstrate the ability to fabricate ductwork.

Sugg. Term	Seq #	Course ID	Course Title	Cr.	Prereq/Coreq(Co)	Options Available
Spring	1	PDV 101	First Year Seminar	1		
	2	HAC 105	Blueprint Reading for HVAC Technicians	2		
	3	HAC 170	HVACR Control Systems	2		
	4	HAC 255	Air Conditioning/Heat Pumps	4		
	5	HAC 260	Hydronics	4		
	6	HAC 290	EPA Refrigerant Exam Preparation	3		
Minimum Program Credits				16		HVAC2