

HVACR/Piping Systems Technology

Program Description

HVACR/Piping Systems Technology is a two-year program designed to provide a foundation and exposure to the principles of heating, ventilation, air conditioning, refrigeration, pipefitting, and plumbing trades. Students will gain insight into the trade industry and obtain a competitive edge when seeking trade-related employment.



Students are instructed in the areas of:

- OSHA Safety Rules and Regulations
- Basic Tools and Equipment
- Basic Electricity
- Single, Split and Three-Phase Circuits and Devices
- Fundamental Concepts of Refrigeration and Equipment
- Forced Air Heating Systems
- Blueprint Reading and Measurements
- Sheet Metal
- Basic Piping and Tubing Systems
- Plumbing & Piping (Residential and Commercial)
- Water and Drainage Systems
- Computer Skills
- Employability Skills

Program of Study

Junior Year
Lab
Related
English
Social Studies
Mathematics
Elective

Senior Year
Lab
Related
Social Studies
English
Science
Elective

A typical day at Penta consists of approximately one-half day hands-on experience in the lab. The rest of the day is used for related technical training along with required course work necessary for graduation.

Career Opportunities

A student successfully completing this two-year program will be prepared for entry level employment in the following areas:

- Technician -**
Installs maintains and services HVACR equipment
- Plumber -**
Installs and repairs pipes that carry liquids and gases (including waste and drainage)
- Pipefitter -**
Installs and repairs large industrial piping systems that carry steam, gases and chemicals
- Sales & Marketing -**
Wholesale and retail sales for the HVACR and Piping Industry

In addition, opportunities are available in higher performance careers such as Contractors, Engineers and Designers through higher education and apprenticeship programs.



College Opportunities

Post-Secondary Enrollment Options:

Qualified students may enroll in the Post-Secondary Enrollment Options Program which has been established to permit high school students to earn college and high school graduation credit through the successful completion of college courses. For more information, contact your high school counselor.

Career Passport

Perhaps the most important tool that will guide you as you leave Penta and enter the job market is a Career Passport created just for you. The documents in the Passport will enable a prospective employer to track your career training, your qualifications for employment, and your demonstrated areas of competency.

With a Career Passport, you will have plenty of options for advancement along your career path. You will be prepared to enter full-time employment, two-year technical or four-year colleges, the military...or, you will always have the potential for self-employment.

Helpful Courses

Courses that are helpful but not required, before enrolling in HVACR/Piping Systems Technology are:

- Computer Application
- Math, Algebra and Geometry
- Mechanical Drawing
- Physical Science

Activities

As a HVACR/Piping Systems Technology student, you will be a member of SkillsUSA, a student-oriented organization designed to expand your citizenship and leadership skills. As a member, you will be encouraged to participate in competitive events at the local, district, state, and national levels in both leadership and occupational skills.

In addition to SkillsUSA at Penta, you may participate in student activities at your high school such as music, sports and club activities.

Salary Information*

Nationally, it is estimated that there will be a 31.7% increase in demand for HVACR technicians and 18.7% increase for Plumbers and Pipefitters through the year 2010.

The average salaries for Heating & Cooling System Technicians include:

National	\$2,910/month
Ohio	\$2,880/month
Toledo	\$3,310/month

The average salaries for Plumbers and Pipefitters include:

National	\$3,350/month
Ohio	\$3,650/month
Toledo	\$4,630/month

Salary varies with the employer's location and industry. It also varies with the worker's skills and experience.

*Ohio Career Information System, 2004

Member Schools

Anthony Wayne
Benton-Carroll-Salem
Bowling Green
Eastwood
Elmwood
Genoa
Lake
Maumee
North Baltimore
Northwood
Otsego
Perrysburg
Rossford
Springfield
Swanton
Woodmore

Penta Career Center hereby gives notice that it does not discriminate on the basis of race, color, national origin, ancestry, sex, religion, disability/handicap, citizenship status, or veteran status in its educational programs, activities, employment policies, or admission policies and practices, as required by law. Penta has a section 504, Title VI, and Title IX coordinator.

Penta Career Center

30095 Oregon Road
Perrysburg, Ohio 43551
(419) 666-1120

www.pentacareercenter.org

**Explore the
Possibilities!**

