



## Make **connections!**

**P**lumbers, pipefitters, and steamfitters constitute one of the largest groups among the construction occupations. Approximately 55% work for independent contractors while others perform maintenance work for industrial, commercial, and government employers or are self-employed. Job opportunities are expected to be very good, especially for workers with welding experience, and salaries in this profession are among the highest in the construction trades. Students completing this program will earn a NYCOSH certificate of completion and may qualify to attain the credential upon successful completion of the exam.

*Advanced college/trade school credit is available to qualifying students from the following institutions:*



## COURSE TITLE: **PLUMBING AND HEATING**

### COURSE DESCRIPTION

This program is designed for students interested in installing, servicing and repairing of domestic sanitation systems, water heaters and home plumbing systems. Students will also receive training on the latest trade-related green technology, as well as efficient appliances, retrofitting to increase water efficiency, and resource conservation.

The program uses OSHA standards as the foundation for workplace safety instruction, and students have the opportunity to earn their OSHA-10 card.

### COURSE CONTENT

Installation of water heaters and controls

Basic plumbing applications

Planning work and developing material lists from sketches or building plans, isometric drawings and orthographic views

Study of local and national plumbing codes and sanitary requirements

Cutting, bending, threading and joining pipes according to specification

Soldering, solvent welding of PVC and ABS plastic drainage piping, cast iron soil pipe, yarning and

caulking no hub cast iron

Hydrostatic testing of assembled systems

Fixtures for domestic and commercial establishments

Math applied to plumbing and heating (trade math)

Installation of plumbing fixtures, drains, waste and vent lines

Planning and installation of natural gas and propane systems

Service and repair of domestic plumbing fixtures and appliances

Safe handling use and maintenance of industry grade power tools and equipment

### EDUCATIONAL OPPORTUNITIES

Advanced College Standing

Associate Degree or Certificate

Baccalaureate Degree

Two-Year Technical College

### CAREER OPPORTUNITIES

Master Plumber

Manufacturer Representative

Industrial Maintenance Mechanic

Utility Installer

Water Conservationist

Plumbing Supply Clerk

Geothermal Technician

Water Technician

Water Resource Specialist

Plumber's Apprentice

Pipe Fitter/Steam Fitter

Oil Burner Technician

### SUGGESTED SUPPORTIVE COURSES

Algebra, Geometry, Physics, Technology

### ADDITIONAL INFORMATION

COSTS ..... Work clothes \$65; \$59 for OSHA-10 certification, tools/equipment \$200; safety shoes \$50; all fees are approximate

LENGTH OF COURSE..... 1 year with option for second year pending

LOCATION ..... Gary D. Bixhorn Technical Center

CTE/ACADEMIC CREDIT ..... Please see chart on pages 4 and 5 for updated details

INDUSTRY CERTIFICATIONS..... OSHA-10

**Quote from program graduate –**  
"Very interesting...best school experience."

