

## Plumbing, AAS

### School of Technology

The Plumbing AAS program provides students with an in-depth background of the plumbing industry. By combining theory and practical shop experiences, students will develop the skills needed for design, installation, maintenance, and troubleshooting plumbing systems for residential and commercial applications. The plumbing AAS degree is designed to prepare students for entry-level positions in the plumbing field. Students learn the tools used in the industry, the meaning of quality customer service, design a plumbing design to standards, and perform plumbing tasks. The skills to install and service plumbing hardware are stressed. Students will install and service water based heating and cooling systems, and residential and commercial water supply and waste systems. Successful completion of this program leads to the associate of applied science degree.

### Career Opportunities

Plumbing program graduates can obtain jobs with the following titles: Sprinkler fitter, fitter, pipe fitter, steamfitter, master plumber, plumbing apprentice, service plumber, residential plumber, plumber gasfitter.

### Program Learning Outcomes

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

- Identify typical plumbing tools and power tools.
- Install fixtures and faucets, plastic pipe and fittings, drain, waste and vent systems.
- Install copper pipe and fittings, cast iron pipe and fittings.
- Install water heaters.
- Introduce fuel gas supply systems.
- Develop an understanding of the servicing of piping systems, sizing, fixtures and appliances.
- Sewage systems including backflow prevention, indirection and special waste systems.
- Understand water booster pumps, recycling systems, and sump pump systems.
- Identify different types of venting systems.
- Develop an understanding of compressed air and other pressurized systems.
- Understand processes for water supply treatment.
- Identify methods for locating buried water and sewer lines.
- Study the installation of plumbing for mobile homes and mobile home parks.
- Understand the practices necessary for swimming pools and hot tub installation.
- Develop the skills to install and service hydronic and geothermal systems.
- Study the different related trades that apply to the plumber.

Sugg. Term	Seq #	Course ID	Course Title	Cr.	Term Offered	Prereq(s)	Options Available
1st Fall	1	PDV 101	First Year Seminar	1	F, Sp, Su		
	2	PMB 101	Plumbing I	4	F		
	3	CMT 101	Related Trades	4	F, Sp		
	4	ENG 161	College Writing	3	F, Sp, Su	ENG 085 or Placement	
	5	MTH 108	Mathematics for Technologies I	4	F, Sp, Su	MTH 104 or Placement	
1st Spring	6	WEL 125	Introduction to Welding	4	F, Sp, Su		
	7	DFT 258	AutoCAD	4	F, Sp, Su		
	8	CHM 107	Introductory Concepts in Chemistry I	4	F, Sp, Su		
	9	PMB 200	Plumbing Code	3	Sp		
	10	HAC 105	Blueprint reading	2	Sp		
2nd Fall	11	PMB 121	Estimating for the Plumber	2	F		
	12	CMT 121	Contracts for the Tradesman	2	F		
	13	WEL 227	GTAW	4	F, Sp	WEL 125	
	14	ENG 162	Technical Communications	3	F, Sp, Su	ENG 161	
	15	HAC 256	Geothermal and Solar Technology	3	F		
2nd Spring	16	Elective	Social Science Elective	3	F, Sp, Su		Page 45 Column II
	17	HAC 260	Hydronics	4	F, Sp		
	18	Elective	Drafting Elective	3	F, Sp, Su		Any 3 or 4 credit DFT course
	19	WEL 230	Pipe Welding	3	F, Sp, Su	WEL 227	
	20	PMB 250	Advanced Plumbing Techniques	4	Sp		

Total Program Credits

63