

Plumbing and Pipefitting Certificate

(Maintenance Technology – Associate Degree path)

This certificate program is designed to equip students with the foundational skills and knowledge necessary to gain an entry level position in the plumbing and pipefitting field. Through a blend of classroom lecture and application, students will learn the use and installation of pipes, valves and fixtures, as well as the type and operation of the required equipment. Foundational areas, including applied mathematics, blueprint reading, and welding, will also be covered.

This certificate is designed to prepare students for success in careers in the plumbing and pipefitting industry. Students who are interested in this field should be aware that most states, including Michigan, require plumbers to pass a test and be licensed. The preparation for becoming licensed includes a mandatory apprenticeship, which requires a sponsoring employer where the plumbing apprentice will work under the supervision of a licensed authorized master plumber for a specified period of time. As the construction and manufacturing industries continue to grow and evolve, plumbers and pipefitters will be in demand to install, maintain and repair several different types of pipe systems. This program is a good fit for individuals who enjoy being active and working with their hands, with an emphasis on mechanical and troubleshooting skills.

A certificate will be awarded to students who successfully complete the following courses:

Career Preparation and Related Courses

		SUGGESTED SEQUENCE	CREDIT HOURS	CONTACT HOURS
ATAM 1000	Mathematics for the Trades	■ □ □ □	4	64
CIVIL 1020	OSHA Construction Safety	■ □ □ □	3	48
ATWD 1110	Fundamentals of Gas & Arc Welding	■ □ □ □	2	32
ATPP 1200	Introduction to Plumbing	■ □ □ □	2	32
ATPP 1210	Plumbing-Drain, Waste & Vent	□ ■ □ □	2	32
ATPP 1220	Water Supply & Distribution Systems	□ ■ □ □	2	32
ATEE 1200	Residential Wiring & Renovations	□ ■ □ □	2	32
ATMT 1650	Millwright Theory-Millwright Theory 1	□ ■ □ □	2	32
ATSS 1150	Steam—Heat Fundamentals	□ □ ■ □	2	32
ATPP 1120	Plumbing—Heating	□ □ ■ □	2	32
ATPP 1250	Introduction to Pipefitting	□ □ ■ □	3	48
ATWD 1130	Shielded Metal Arc Welding (SMAW)	□ □ ■ □	2	32
ATTR 1150	Technical Report Writing	□ □ □ ■	2	32
ATPP 1130	Plumbing—Code	□ □ □ ■	2	32
ATPP 2000	Advanced Pipe Fitting	□ □ □ ■	3	48
ATSS 1160	Steam—Steam Boilers (Low & High Pressure Operations)	□ □ □ ■	2	32
Total			37	592

In cases where prior training or education is documented, specific courses may be substituted for one or more of the above courses as conditions warrant with consent of the apprentice coordinator. Suggested alternate courses, which may also be used as electives toward an associate degree, are listed below for consideration.

Suggested Alternative/Elective Courses:

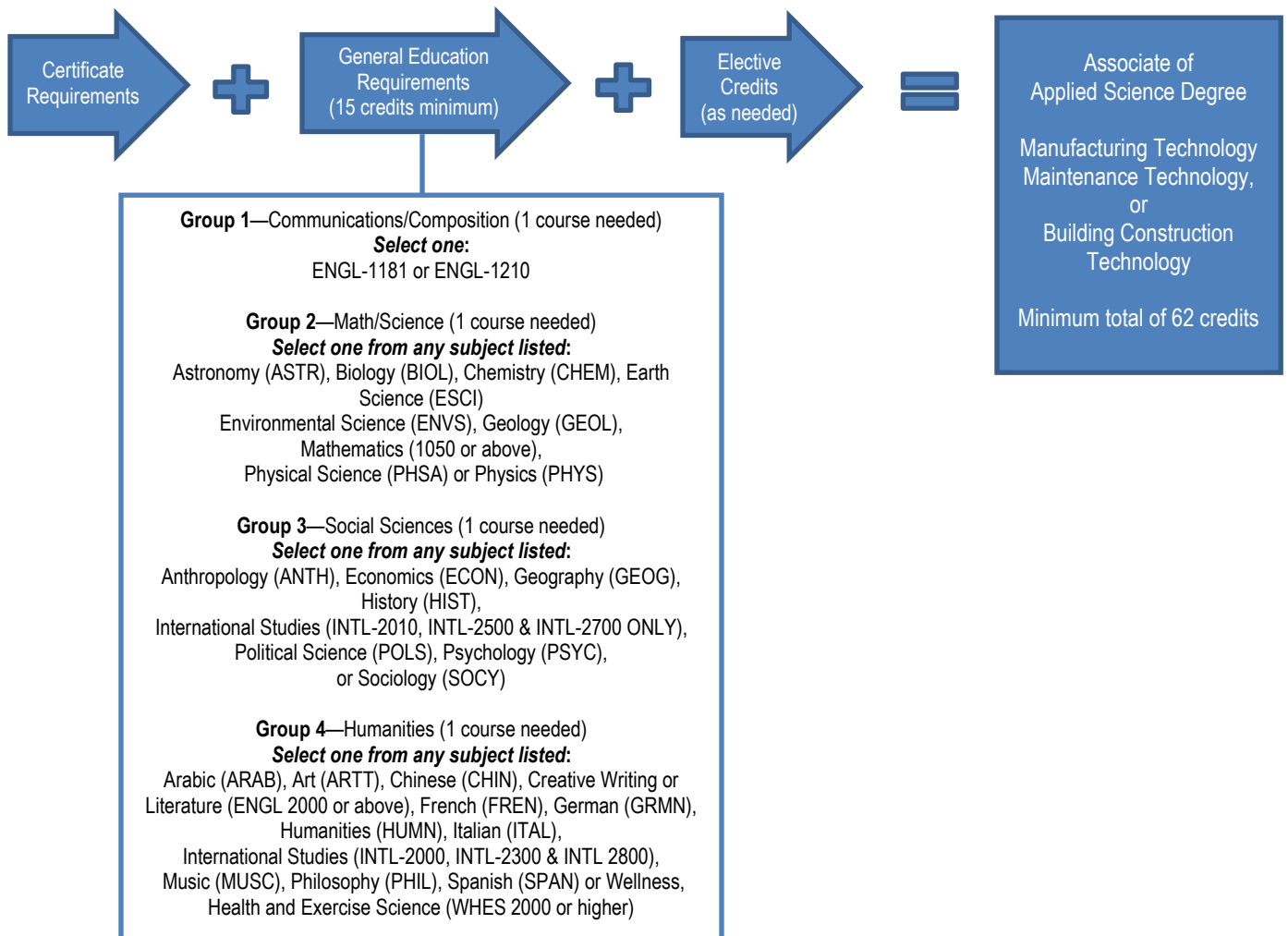
ATMT 1660	Millwright Theory II	CNST 1180	Construction Systems and Prints
MECT 1320	Industrial Hydraulic Fundamentals	ATMT 1300	Metallurgy—Characteristics of Ferrous Metals
CLCT 1700	Fundamentals of Controls	ATMT 1310	Metallurgy – Characteristics of Non-Ferrous Metals
CNST 1160	Construction—Cost Estimating	MECT 1310	Pneumatics Technology Fundamentals

SEE SECOND PAGE/REVERSE SIDE FOR ASSOCIATE DEGREE REQUIREMENTS

Associate of Applied Science Degree Requirements (Minimum 62 credit hours)

An Associate of Applied Science Degree is offered for those enrolled in or completing an Apprenticeship, Employee-In-Training, or Applied Technology General Certificate Program. Other College requirements apply, including the completion of the general education requirements, as well as attaining a minimum overall total of 62 credit hours. See Apprentice Coordinator or Advisor for details.

Students may graduate with an Associate of Applied Science Degree in Manufacturing Technology, Maintenance Technology or Building Construction Technology, depending on the Apprenticeship, Employee-In-Training or Applied Technology General Certificate Program area of specialty.



Information is subject to change. Please visit www.macomb.edu for the most current information.

For more information on the Plumbing and Pipefitting Certificate Program at Macomb, contact the Applied Technology and Apprenticeship Department at 586.445.7414 or apprenticeship@macomb.edu .