

Maintenance Mechanic 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 as an industrial maintenance mechanic. Through a blend of classroom lecture and hands-on experience, students will learn mechanics, electrical theory, principles of refrigeration, sheet metal layout, pneumatics, and hydraulics. Foundational areas, including applied mathematics, blueprint reading, and welding, will also be covered.

This program is designed to prepare students for success as a maintenance mechanic in an industrial setting. As manufacturing continues to expand and evolve, the associated machinery and technology will become more complex. Skilled maintenance mechanics will be in demand to perform routine preventative maintenance and repair machines and mechanical equipment. This program is a good fit for individuals who enjoy being active and working with their hands, with an emphasis on mechanical reasoning, troubleshooting, and problem solving. Those who graduate with this certificate have the well-rounded skillset necessary to be an effective and efficient industrial maintenance mechanic.

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 I	■ □ □ □	4	64	
ATTR 1600	Industrial Safety—Skilled Trades	■ □ □ □	2	32	
ATDD 1900	Machine Tool Blueprint Reading	■ □ □ □	2	32	
ATWD 1110	Fundamentals of Gas & Arc Welding	■ □ □ □	2	32	
ATEE 1000	Introduction to Electrical	□ ■ □ □	3	64	
ATMT 1650	Millwright Theory 1	□ ■ □ □	2	32	
ATBC 1200	Foundations & Framing	□ ■ □ □	2	32	
CLCT 1200	Fundamentals of Air Conditioning & Refrigeration	□ ■ □ □	3	64	
ATEE 1100	Introduction to Motors & Control Circuits	□ □ ■ □	3	64	
AEM 1350	Electrical-Mechanical Blueprint Reading	□ □ ■ □	2	32	
ATMT 1660	Millwright Theory 2	□ □ ■ □	2	32	
ATPP 1200	Introduction to Plumbing	□ □ ■ □	2	32	
ATMT 1150	Machine Tool Laboratory 1	□ □ □ ■	3	48	
MECT 1320	Industrial Hydraulic Fundamentals	□ □ □ ■	3	64	
MECT 1310	Pneumatics Technology Fundamentals	□ □ □ ■	3	64	
			Total	38	688

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:

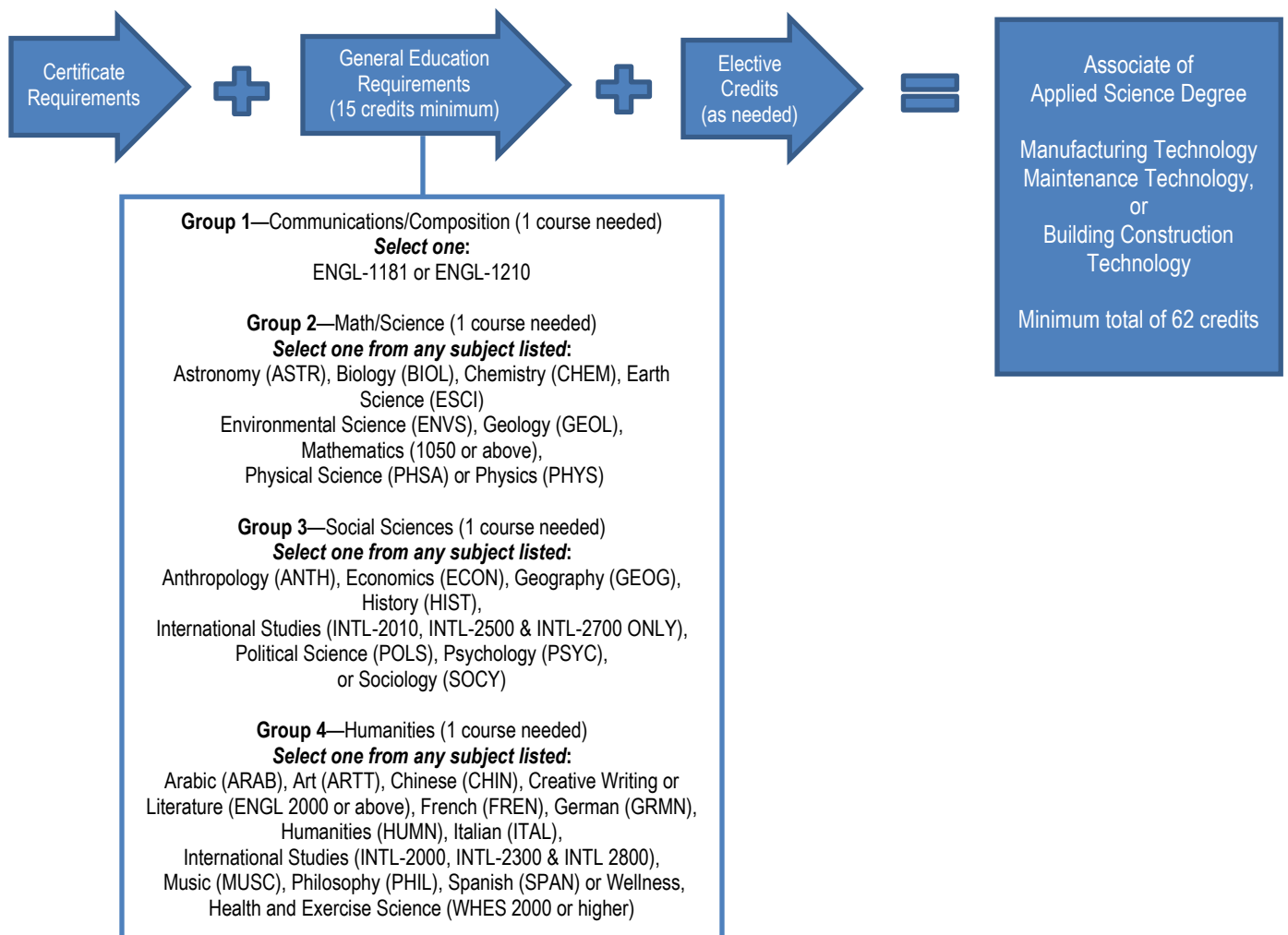
ATAM 2000	Mathematics for the Trades II	ATPP 1210	Drain, Waste & Vent
ATWD 1130	Shielded Metal Arc Welding 1 (SMAW)	ATPP 1220	Water Supply and Distribution Systems
ATWD 1140	Gas Metal Arc Welding (MIG)	ATBC 1210	Applied Building Construction Interior Finishes
CLCT 1600	Duct Layout & Fabrication	ATBC 1220	Applied Building Construction Exterior Finishes
ATPP 1120	Plumbing Heating	ROBO 1200	Robot Operations, Handling Tool, & Programming

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 Maintenance Mechanic Certificate Program at Macomb, contact the Applied Technology and Apprenticeship Department at 586.445.7414 or apprenticeship@macomb.edu.