

## *Plastic Process Technician Certificate*

(Manufacturing Technology – Associate Degree path)

This certificate program is designed to equip students with the foundational skills and knowledge necessary to begin a career as a plastic process technician. Through a blend of classroom lecture and hands-on experience, students will gain a working knowledge of injection molding processes, molds and the properties of plastics and metals, as well as a basic understanding of electrical, hydraulic, and pneumatic systems. Foundational areas, including applied mathematics, blueprint reading, and drafting, will also be covered.

This program is designed to prepare students for success in the plastic process technician profession. As the manufacturing industry and related technologies continue to evolve, plastic process technicians will be necessary to maintain the control of processes and machinery used to make plastic parts. This program is a good fit for people who are detail-oriented and enjoy working with their hands, with an emphasis on mechanical reasoning. Those who graduate with this certificate have a solid understanding of the production and processing methods used in the plastics industry.

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 1150	Shop Arithmetic	■ □ □ □	2	32
ATDD 1950	Drafting Essentials	■ □ □ □	2	32
ATMT 1700	Thermoplastic & Thermosetting Materials	■ □ □ □	2	32
MECT 1320	Industrial Hydraulic Fundamentals	■ □ □ □	3	64
ATAM 1160	Algebra	□ ■ □ □	2	32
ATDD 1960	Conventions & Symbols	□ ■ □ □	2	32
ATMT 1750	Plastic Product Design & Tooling	□ ■ □ □	2	32
ELEC 1300	Electrical Equipment & Introduction to Machine Circuits	□ ■ □ □	2	32
ATEM 1350	Mechanical Blueprint Reading	□ □ ■ □	2	32
ATDD 1920	Geometric Dimensioning & Tolerancing	□ □ ■ □	2	32
MECT 1310	Pneumatics Technology Fundamentals	□ □ ■ □	3	64
ATMT 2210	Plastic Mold & Die Cast Die Theory	□ □ □ ■	2	32
ATMT 2916	Statistical Process Control	□ □ □ ■	2	32
ATMT 1300	Metallurgy—Characteristics of Ferrous Metals	□ □ □ ■	2	32
ATMT 1310	Metallurgy—Characteristics of Non-Ferrous Metals	□ □ □ ■	2	32
Total			32	544

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. Suggested alternate courses, which may also be used as electives toward an associate degree, are listed below for consideration. Contact the Applied Technology and Apprenticeship department for details.

### Suggested Alternative/Elective Courses:

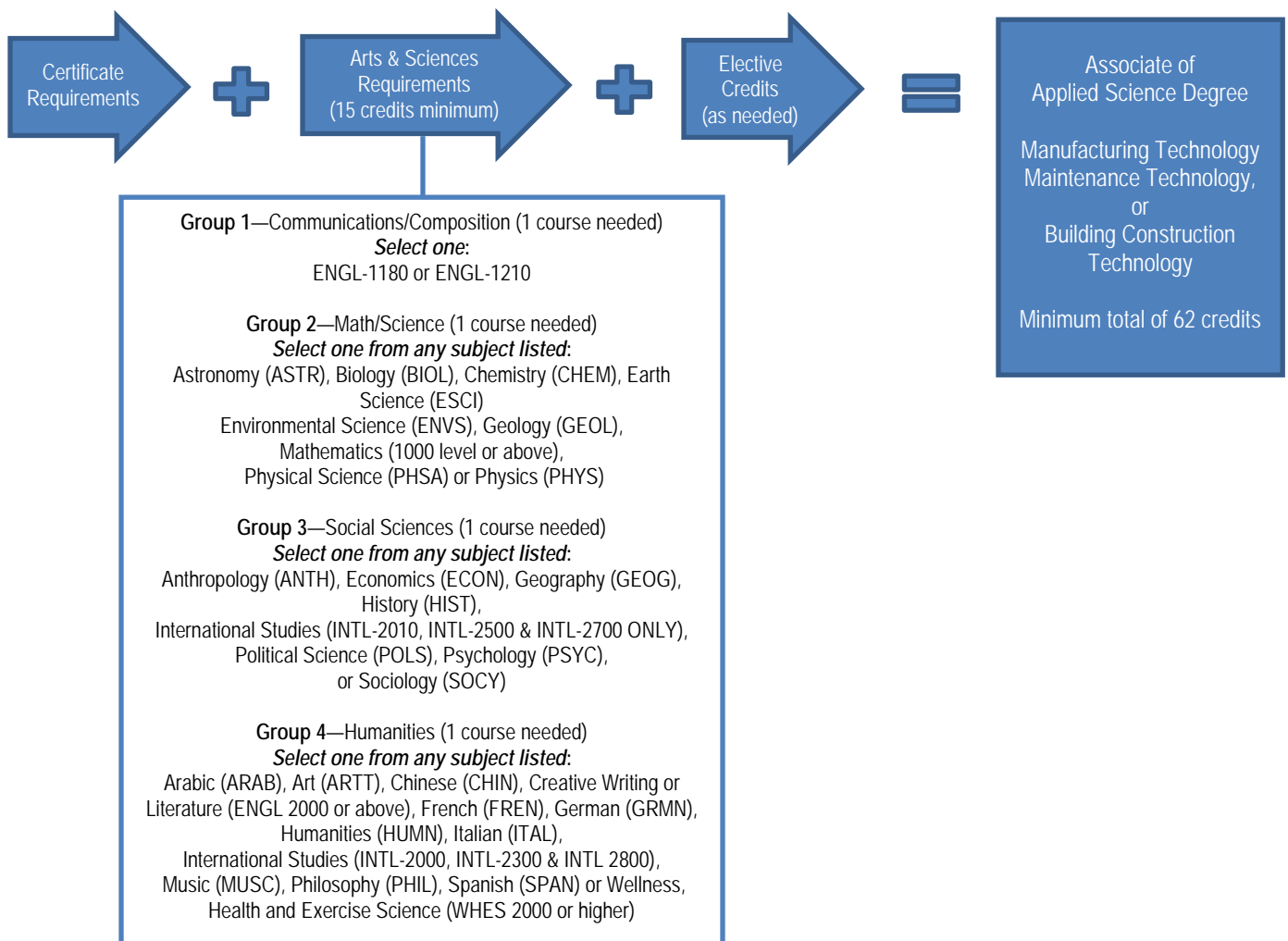
ATTR 1600	Industrial Safety—Skilled Trades	ATMT 1150	Machine Tool Laboratory 1
ATAM 1170	Geometry	ATFP 1120	Fluid Power—Controls
MECT 1640	Introduction to Programmable Controllers—Allen Bradley PLC	ATFP 1140	Fluid Power—Basic Circuits
ATTR 1150	Technical Report Writing	ATAP 1050	CNC Essentials

## 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 General Certificate Program. Other College requirements apply, including the completion of the arts and sciences (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 General Certificate Program area of specialty.



\*\*Information is subject to change. Please visit [www.macomb.edu](http://www.macomb.edu) for the most current information.\*\*

For more information on the Plastic Process Technician Certificate Program at Macomb, contact the Applied Technology and Apprenticeship Department at 586.445.7438 or [apprenticeship@macomb.edu](mailto:apprenticeship@macomb.edu).