

## *Mold Maker—Plastic and/or Die Cast Certificate*

(Manufacturing Technology – Associate Degree path)

This certificate program is designed to provide students with the foundational skills and knowledge necessary to begin a career as a mold maker. Through a blend of classroom lecture and hands-on experience, students will gain a working knowledge of the tools, machines, equipment, materials and processes used in the field. Foundational areas, including applied mathematics and drafting, will also be covered.

This program is designed to prepare students for success in the mold making profession. As the manufacturing industry and related technologies continue to evolve, mold makers will be in demand to make metal molds for die casting and for shaping plastics and composite materials. This program is a good fit for people who enjoy working with their hands, with an emphasis on spatial conceptualization and the ability to adapt to change. Those who graduate with this certificate have a solid understanding of the terminology, equipment and techniques used in the mold making profession.

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 1210	Benchwork, Drill Presses & Lathes	■ □ □ □	2	32
ATMT 1250	Shapers, Planers, Mills & Grinders	■ □ □ □	2	32
ATAM 1160	Algebra	□ ■ □ □	2	32
ATDD 1960	Conventions & Symbols	□ ■ □ □	2	32
ATMT 1150	Machine Tool Laboratory 1	□ ■ □ □	3	48
ATAP-1050	CNC Essentials	□ ■ □ □	3	64
ATAM 1170	Geometry	□ □ ■ □	2	32
ATMT 1700	Thermoplastic & Thermosetting Materials	□ □ ■ □	2	32
ATMT 2210	Plastic Mold & Die Cast Die Theory	□ □ ■ □	2	32
AND				
ATAP 2330	EDM—RAM G&M Programming & Machining	□ □ ■ □	2	32
OR				
ATAP 2340	EDM—WIRE G&M Programming & Machining	□ □ ■ □	2	32
ATAM 2150	Trigonometry	□ □ □ ■	2	32
ATMT 1300	Metallurgy—Characteristics of Ferrous Metals	□ □ □ ■	2	32
ATDD 1920	Geometric Dimensioning & Tolerancing	□ □ □ ■	2	32
ATMT 1750	Plastic Product Design & Tooling	□ □ □ ■	2	32
Total			34	560

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:

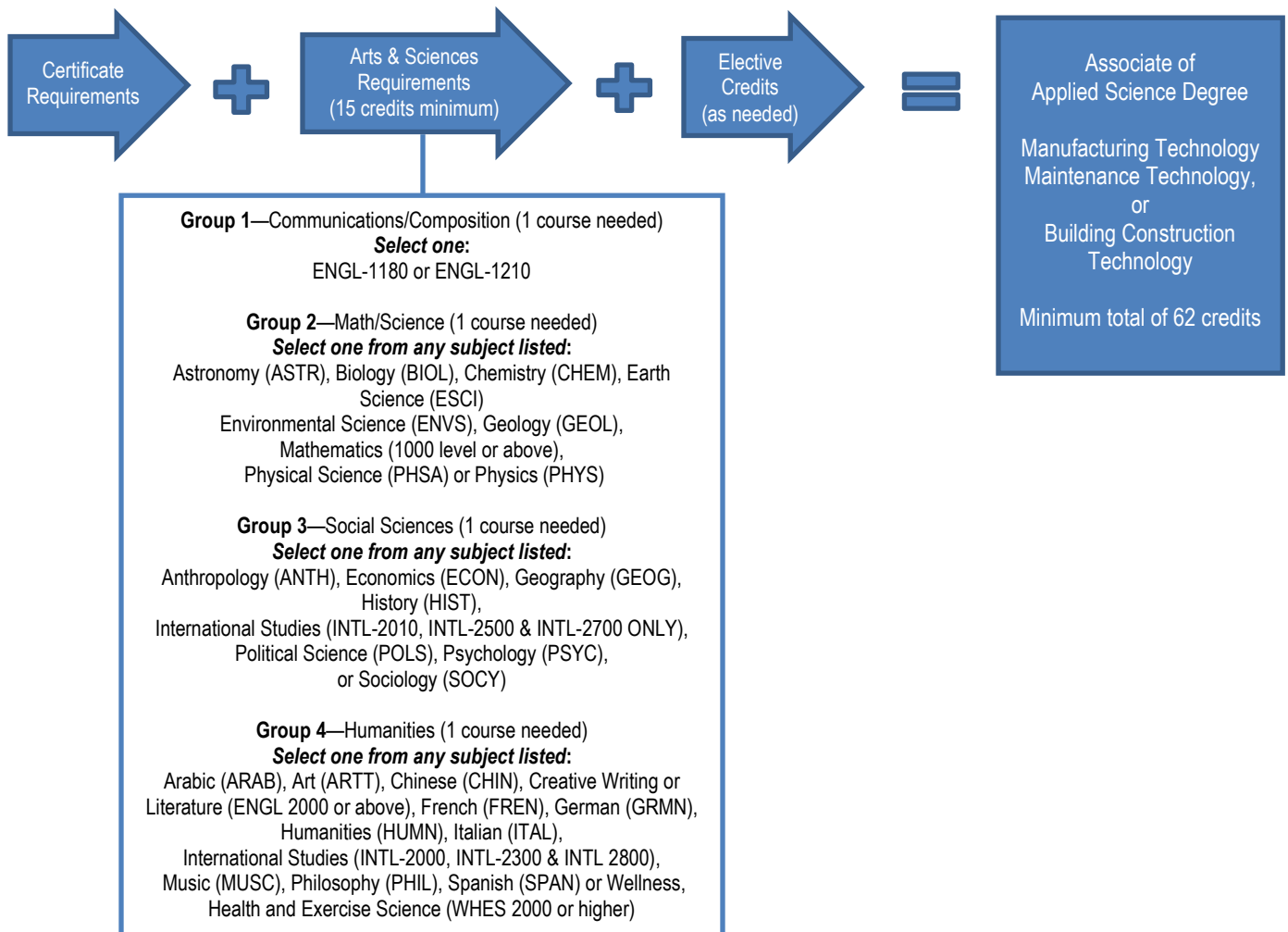
ATTR 1600	Industrial Safety—Skilled Trades	ATAP 2310	CNC Mill G&M Programming & CNC Machining
ATDD 1900	Machine Tool Blueprint Reading	ATAP 2320	CNC Lathe G&M Programming & CNC Machining
ATDD 1970	Three Dimensional Shape Interpretation	ATAP 2010	2D CAD with MasterCAM
ATAP 2360	3D Cimatron CAD/CAM—Die/Mold CNC Machining	ATMT 1310	Metallurgy—Characteristics of Non-Ferrous Metals

## 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 Mold Maker-Plastic and/or Die Cast Certificate Program at Macomb, contact the Applied Technology and Apprenticeship Department at 586.445.7438 or [apprenticeship@macomb.edu](mailto:apprenticeship@macomb.edu).