

MAP+ Industrial Readiness Program

Macomb Community College offers a certificate program that delivers foundational skill sets to students interested in pursuing a skilled trades career in advanced manufacturing or construction. For a limited time, the Michigan Apprenticeship Program Plus (MAP+) Industrial Readiness program is **tuition free** for eligible applicants. If selected for the program, you can:

- Complete classes in a short period of time
- Develop workplace and academic skills
- Network with hiring employers
- Earn an Industrial Readiness Certificate and 11 college credits



Why should I consider an apprenticeship or career in advanced manufacturing or construction?

- Gain access to employment with little or no student debt
- Achieve independence and build a career
- Use hands-on skills and earn a great starting salary



What are the program courses?*

Your courses will depend upon whether you choose a manufacturing or construction path.

MANUFACTURING COURSES		CREDIT HRS.
ATAM-1000	Mathematics for the Trades I*	4
ATDD-1900	Drafting–Machine Tool Blueprint Reading	2
ATMT-1150	Machine Theory–Machine Tool Lab 1	3
ATTR-1600	Industrial Safety–Skilled Trades	2

CONSTRUCTION COURSES		CREDIT HRS.
ATAM-1000	Mathematics for the Trades I*	4
CNST-1100	Pre-License 1–Residential Construction	2
ATBC-2912	Introduction to Building Trades	3
ATTR-1600	Industrial Safety–Skilled Trades	2

What if I want to further my education?

At Macomb Community College, your Industrial Readiness Certificate can lead to a skill-specific certificate. You can pursue an Associate of Applied Science degree in Manufacturing Technology, Maintenance Technology or Building Construction Technology. Transfer options are available with our university partners to earn your bachelor's degree.

Why should I choose Macomb Community College for Applied Technology & Apprenticeship?

Macomb Community College has been providing apprenticeship instruction for more than 65 years. Many local employers take advantage of our customizable employee-in-training programs to offer students an employer-sponsored training program similar to an apprenticeship.

For more information contact Carol Hensler-Smith
hensler-smithc516@macomb.edu
586.445.7169

**Classes are subject to change. ATAM-1000 Mathematics for the Trades I replaces ATAM-1150-Shop Arithmetic beginning Fall 2024.*

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Macomb Community College and MAP+ is an equal opportunity employer/program provider. Auxiliary aids and services are available upon request to individuals with disabilities. TTY users please call 1.877.878.8464 or visit www.michigan.gov/mdcr.



MAP+ Industrial Readiness Program



Manufacturing

The successful completion of this certificate indicates to prospective employer sponsors that the student has the aptitude necessary to enter a skilled trade and will also help candidates prepare for a potential program entrance exam. A student must earn a minimum 2.0 grade point in each course to receive this certificate.

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

MANUFACTURING		CONTACT HRS.	CREDIT HRS.
ATAM-1000	Mathematics for the Trades I*	64	4
ATDD-1900	Drafting–Machine Tool Blueprint Reading	32	2
ATMT-1150	Machine Theory–Machine Tool Lab 1	48	3
ATTR-1600	Industrial Safety–Skilled Trades	32	2

ATAM-1000 • Mathematics for the Trades I • 4.00 credit hours

Prerequisites: None. (formerly ATAM-1150 & ATAM-1160) This course provides an intensive review of shop arithmetic and the fundamentals of algebra for all trades through the solution of practical industrial shop problems. Major topics of study include whole numbers, fractions, decimals, signed numbers, square roots, exponents, ratios and proportions, percent, units of measurement and conversions, scientific and engineering notation, algebraic expressions, solving algebraic equations, polynomials, special products, factoring, and systems of equations.

ATDD-1900 • Drafting–Machine Tool Blueprint Reading • 2.00 credit hours

Prerequisites: None. An introduction to blueprint reading: interpretation of various kinds of lines, position of views, symbols, conventions, dimensioning practices, sectioning, auxiliary views and symmetry with emphasis on techniques employed to show details in relation to assembly drawings.

ATMT-1150 • Machine Theory–Machine Tool Lab • 3.00 credit hours

Prerequisites: None. Basic theory and operations of the fundamental machines used in a modern machine shop. Basic skills and technical knowledge are covered for drill presses, shapers, lathes and milling machines. Safe work habits are emphasized. Inspection is an integral part of the course.

ATTR-1600 • Industrial Safety–Skilled Trades • 2.00 credit hours

Prerequisites: None. Encompasses safety/health rules, procedures, safety responsibilities, and hazard recognition associated with the following: lockouts, machine tools, machine guarding, hand tools, portable power tools, safe use of energy sources, powered trucks, material handling, hazardous materials, lifting, climbing, ladders, scaffolds, rigging, slings, ropes, cranes, hoists and basic fire safety. Accident causation, impact and prevention, as well as basic human anatomy and physiology will be studied.

**For more information contact Carol Hensler-Smith
hensler-smithc516@macomb.edu or 586.445.7169**

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Construction

The successful completion of this certificate indicates to prospective employer sponsors that the student has the aptitude necessary to enter a skilled trade and will also help candidates prepare for a potential program entrance exam. A student must earn a minimum 2.0 grade point in each course to receive this certificate.

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

CONSTRUCTION		CONTACT HRS.	CREDIT HRS.
ATAM-1000	Mathematics for the Trades I*	64	4
CNST-1100	Pre-License 1–Residential Construction	32	2
ATBC-2912	Introduction to Building Trades	48	3
ATTR-1600	Industrial Safety–Skilled Trades	32	2

ATAM-1000 • Mathematics for the Trades I • 4.00 credit hours

Prerequisites: None. (formerly ATAM-1150 & ATAM-1160) This course provides an intensive review of shop arithmetic and the fundamentals of algebra for all trades through the solution of practical industrial shop problems. Major topics of study include whole numbers, fractions, decimals, signed numbers, square roots, exponents, ratios and proportions, percent, units of measurement and conversions, scientific and engineering notation, algebraic expressions, solving algebraic equations, polynomials, special products, factoring, and systems of equations.

CNST-1100 • Pre-Builder's License 1–Residential Construction • 2.00 credit hours

Prerequisite: None. (formerly ATBC-1100) A course designed to provide a means for the student to interpret prints of existing residences, and to relate construction problems with general mathematics. This course will also cover building codes and inspections. Contains material that will help the student prepare to take the Michigan Residential Builders License Examination.

ATBC-2912 • Introduction to Building Trades • 3.00 credit hours

Prerequisites: None. This course provides an overview of basic concepts related to the many skilled occupations in the building construction industry. Trades such as plumbing, building, electrical, heating and cooling, and painting will be studied. Reviews of the fundamentals of safety standards, equipment and methods used in these trade areas will be discussed and applied in this course.

ATTR-1600 • Industrial Safety–Skilled Trades • 2.00 credit hours

Prerequisites: None. Encompasses safety/health rules, procedures, safety responsibilities, and hazard recognition associated with the following: lockouts, machine tools, machine guarding, hand tools, portable power tools, safe use of energy sources, powered trucks, material handling, hazardous materials, lifting, climbing, ladders, scaffolds, rigging, slings, ropes, cranes, hoists and basic fire safety. Accident causation, impact and prevention, as well as basic human anatomy and physiology will be studied.