

Electrician—Certificate

(Maintenance Technology or Building Construction Technology – Associate Degree path)

This certificate program is designed to equip students with the foundational skills and knowledge necessary to gain entry to the electrical field. Through a blend of classroom theory and hands-on experience, students will learn electrical theory, blueprint reading, mathematics, electrical code requirements and safety practices.

This certificate program is designed to prepare students for success in careers in the electrical industry. Students who are interested in this field should be aware that states, including Michigan, require electricians to pass a test and be licensed. The preparation for becoming licensed is a mandatory apprenticeship, which requires a sponsoring employer with a journeyman or master electrician on staff. Classroom training is a required component of an electrical apprenticeship. The classes included in this certificate program are approved by the State of Michigan Electrical Division for use in an apprenticeship program.

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 1350	Arithmetic & Introductory Algebra for Electrical & Allied Crafts	■ □ □ □	2	32
ATTR 1600	Industrial Safety—Skilled Trades	■ □ □ □	2	32
ATEE 1000	Introduction to Electrical	■ □ □ □	3	64
ATEE 1200	Residential Wiring & Renovations	■ □ □ □	2	32
ATAM 1360	Electrical Circuitry—Algebra & Trigonometry	□ ■ □ □	2	32
ATEE 1100	Introduction to Motors & Control Circuits	□ ■ □ □	3	64
ATEE 1310	National Electric Code for the Residential Environment	□ ■ □ □	2	32
ATEE 2200	Industrial Electronic Fundamentals	□ ■ □ □	2	32
ATAM 2350	A.C. Circuitry—Trigonometry & Vectors	□ □ ■ □	2	32
ATEE 1320	National Electric Code for the Commercial Environment	□ □ ■ □	2	32
ATEE 2000	Single & Three Phase Motor Circuits & Applications	□ □ ■ □	2	32
ATEM 1350	Electrical-Mechanical Blueprint Reading	□ □ ■ □	2	32
ATEE 1330	National Electric Code for the Industrial Environment	□ □ □ ■	2	32
ATEE 2010	Motor Controls Lab	□ □ □ ■	2	32
ATEE 2300	Welding Controllers	□ □ □ ■	2	32
ATEE 2500	National Electrical Code	□ □ □ ■	2	32
		Total	34	576

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:

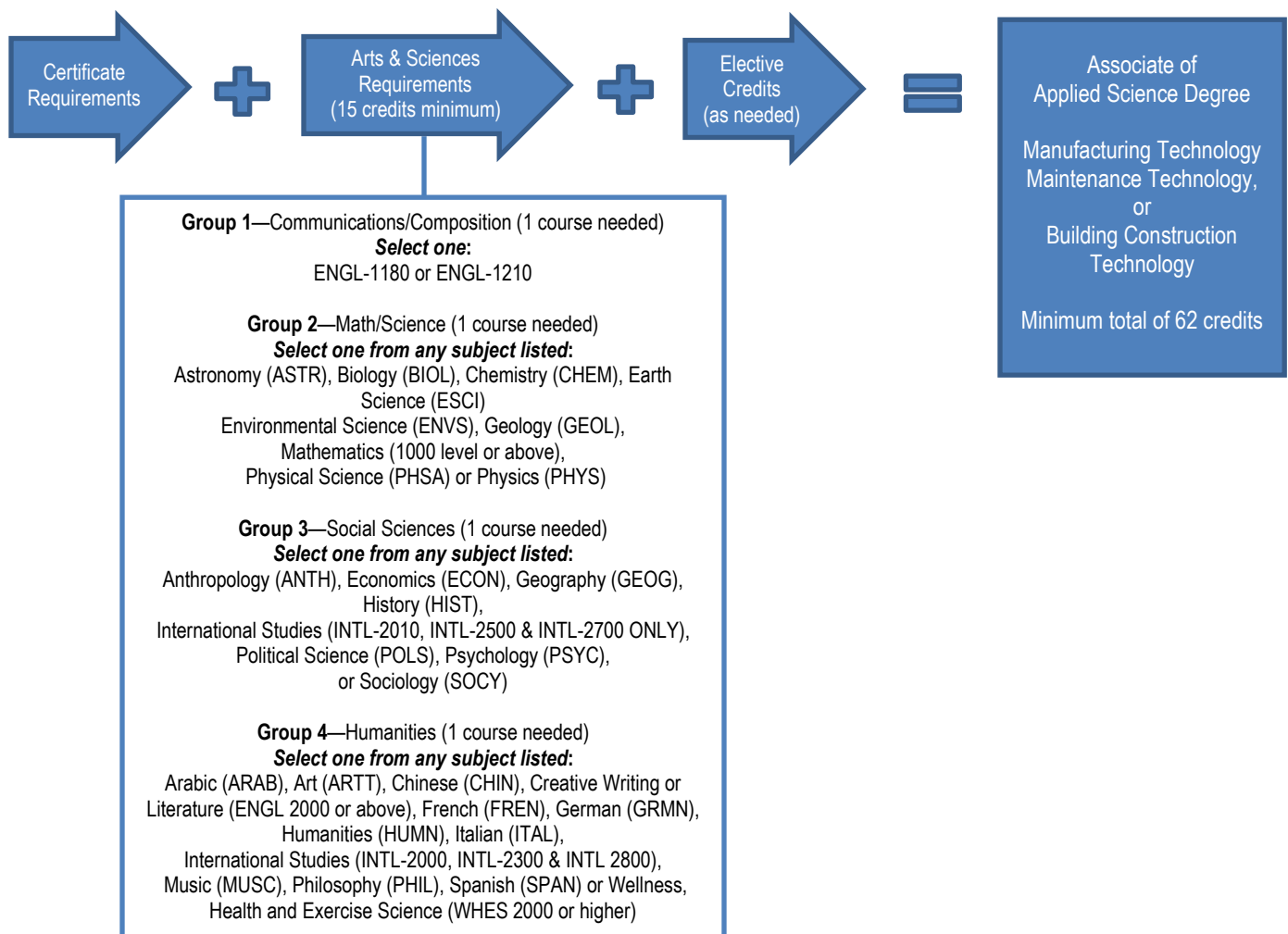
MECT 1310	Pneumatics Technology Fundamentals	CLCT 1700	Fundamentals of Controls
MECT 1320	Industrial Hydraulic Fundamentals	ATWD 1110	Fundamentals of Gas & Arc Welding
MECT 1340	Mobile Hydraulics Technology	ATTR 1150	Technical Report Writing
MECT 1330	Electro-Hydraulics Technology	ROBO 1200	Robot Operations, 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 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 for the most current information.

For more information on the Electrical – Industrial Maintenance Certificate Program at Macomb, contact the Applied Technology and Apprenticeship Department at 586.445.7438 or apprenticeship@macomb.edu.

Gainful Employment Disclosure: For information about program cost, on-time completion rates, typical student debt, and other important information, visit: Electrical Industrial Maintenance, Certificate: <http://www.macomb.edu/ge/STEIMCT/>