Macomb Community College
Education • Enrichment • Economic Development
Discover. Connect. Advance.℠

Electric Vehicle Development Technology Certificate

(Manufacturing Technology – Associate Degree path)

This certificate program prepares students with the fundamental skills and abilities to enter a career in Electric Vehicle Development Technologies. Students will gain an understanding of: the automotive business, components, maintenance, basic design, electronics architecture and technologies, and battery powered electric vehicle propulsion systems. Students will also gain knowledge in A.C. and D.C. circuits, inverters, and converters. This program emphasizes laboratory skills.

This program is designed to develop Electric Vehicle Technicians for careers in development and manufacturing, including the following job categories: development technician, electrical test technician, sales support, service, mechanical testing technician and manufacturing technician. This program is ideal for those who enjoy working with their hands and have an interest in innovative technology. Graduates of this certificate program are well-rounded in electronic technology, motors, controls, sensors, and basic battery powered electric vehicle systems.

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

Career Preparation and Related Courses		SUGGESTED SEQUENCE				CREDIT HOURS	CONTACT HOURS
AUTO 1000	Automotive Systems	■	☐	☐	☐	3	64
ELEC 1161	Electronic Technology 1	■	☐	☐	☐	3	64
ELEC 1171	Electronic Technology 2	■	☐	☐	☐	3	64
AUTO 2920	Introduction to Electric Vehicle Propulsion Systems	☐	■	☐	☐	3	64
ELEC 2913	Motors & Controls for Electric Vehicles & Industrial Applications	☐	■	☐	☐	3	64
ELEC 2914	Electric Vehicle Data Acquisition, Sensors & Control Systems	☐	■	☐	☐	3	48
ELEC 2915	Advanced Energy Storage	☐	☐	■	☐	3	64
TMTH 1150	RCL Analysis	☐	☐	■	☐	4	64
ELECTIVE	Choose from the following courses: AUTO 1200, AUTO 1440, AUTO 1550, AUTO 2440, BUSN 2100, CHEM 1050, ELEC 1125, ELEC 2150, ELEC 2160, PRDE 2430, RNEW 1500	☐	☐	■	☐	3	32-112
					Total	28	528-608

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 Alternate / Elective Courses:

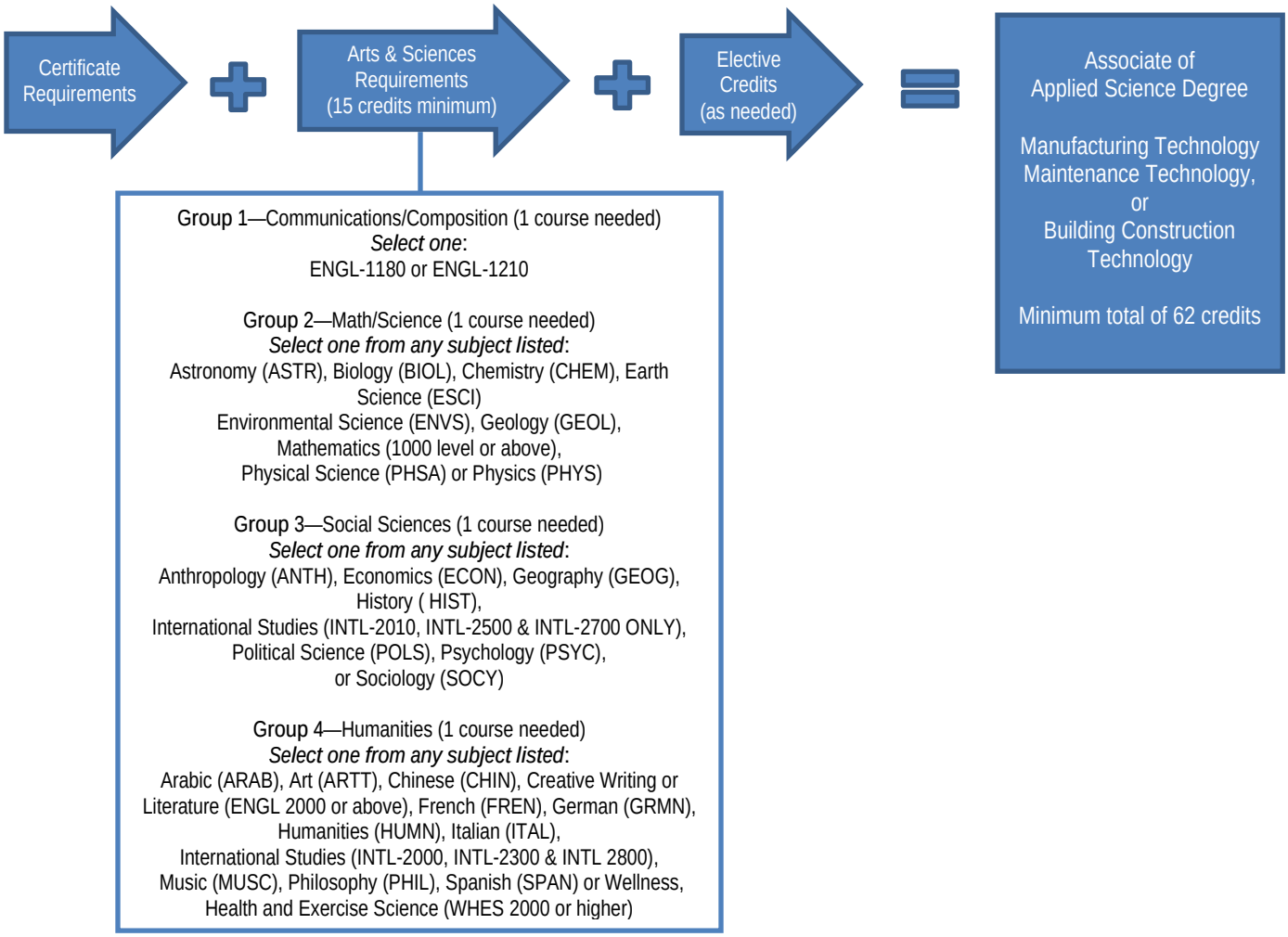
ATTR 1150	Technical Report Writing	ATMT 1950	Science—Physics 1: Mechanics
ATTR 1600	Industrial Safety—Skilled Trades	CORE 1000	Industrial Technology Fundamentals

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 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 Electric Vehicle Development Technology Program at Macomb, contact the Applied Technology and Apprenticeship Department at 586.445.7438 or apprenticeship@macomb.edu .