

ELECTRIC TRANSPORTATION TECHNOLOGY (B.S.)

An admissions moratorium is in effect for this program.

The Bachelor of Science in Electric Transportation Technology (B.S.E.T.T.) Program prepares students for dynamic careers in a growing area of the automotive industry. Electric Transportation Technologists use the principals of science and math to solve problems in industry and business. The B.S.E.T.T. curriculum is a broad based, technically-oriented education that emphasizes the application of advanced technology to solve problems, design and develop products, and improve processes, procedures, equipment, and facilities. Possible uses for a B.S.E.T.T. degree include working with electric vehicles, hybrid electric vehicles, plug-in electric vehicles, and fuel-cell vehicles. As demand for efficiency and sustainability grow in the transportation sector, B.S.E.T.T. graduates will be able to meet the needs of industry.

Admission Requirements

This program is designed to admit students who satisfy the general undergraduate admission (<http://bulletins.wayne.edu/undergraduate/general-information/admission/>) requirements of the University and have an associate degree with a minimum grade point average (g.p.a.) of 2.50. Students with a g.p.a. of 2.0 to 2.5 may be admitted as pre-engineering technology students, and may be transferred into the engineering technology program upon successful completion of MAT 1800 and PHY 2130 with a g.p.a. of 2.50.

Required Background: Any student deficient in any courses listed under Lower Division Technical Transfer Credit will be required to remove the deficiencies before electing any EET courses.

A Mathematics Placement Examination is required of entering students who have not already earned advanced credit in pre-calculus.

An admissions moratorium is in effect for this program. No new students will be admitted.

This program extends the practical and applied base of the associate degree program by means of more theoretical courses in electrical, advanced energy storage, and hybrid electric vehicle technology with additional background courses in mathematics, science, and socio-humanities. Candidates for the B.S.E.T.T. degree must earn a minimum of 128 credits, as outlined in one of the following major programs and including the University General Education Requirements (<http://bulletins.wayne.edu/undergraduate/general-information/general-education/>). University policy allows a maximum of sixty-four semester credits transferred from community colleges to Wayne State, but students following University-approved articulation agreements with community colleges are able to exceed the maximum of sixty-four credits; a minimum of thirty semester credits must be earned from Wayne State, at least twenty-four of which must be in Division of Engineering Technology courses. All coursework must be completed in accordance with the academic procedures of the University (<http://bulletins.wayne.edu/undergraduate/general-information/academic-regulations/>) and the College (<http://bulletins.wayne.edu/undergraduate/college-engineering/academic-regulations/>) and must conform to Division (<http://bulletins.wayne.edu/undergraduate/college-engineering/engineering-technology-division/#academicregulationstext>) academic standards.

In order to graduate, the University requires a minimum 2.0 g.p.a. in total resident credit, and the Division a minimum 2.0 g.p.a. in total coursework

in the area of specialization; as well as satisfaction of all University Undergraduate General Education Requirements.

Program Requirements

The Bachelor of Science in Electric Transportation Technology requires a minimum of 128 credits as outlined in the following curriculum.

Code	Title	Credits
Basic Science and Mathematics		
CHM 1020	Survey of General Chemistry	4
MAT 1800	Elementary Functions	4
MAT 3430	Applied Differential and Integral Calculus	4
MAT 3450	Applied Calculus and Differential Equations	4
PHY 2130	Physics for the Life Sciences I	4
PHY 2140	Physics for the Life Sciences II	4
Life Science (LS)		
ETT Technical Core		
ET 4999	Senior Project	3
ET 5870	Engineering Project Management	3
EET 3100	Advanced Digital Design	3
EET 3150	Network Analysis	4
EET 3180	Analog Electronics	4
EET 3500	Electrical Machines and Power Systems	3
EET 4200	Control Systems	4
ETT 3190	Fundamentals of Automotive Electrical and Electronic Systems	3
ETT 4150	Fundamentals of Hybrid and Electric Vehicles	3
ETT 4310	Energy Storage Systems for Hybrid and Electric Vehicles	3
ETT 4650	Power Electronics and Charging Infrastructure for Hybrid and Electric Drive Vehicles	3
ETT Upper Division Technical Electives		6
Lower Division Technical Transfer Credit		
ET 2160	Computer Applications for Engineering Technology	2
EET 2100	Principles of Digital Design	3
EET 2720	Microprocessor Fundamentals	3
Automotive Technology-related Courses		12
Other technology courses		12
Communication Requirements		
(BC) Basic Composition course		3
ENG 3050	Technical Communication I: Reports	3
(OC) Oral Communication course		3
Other General Education Requirements		
Historical Studies (HS)		3
American Society and Institutions (AI)		3
Critical and Analytic Thinking (CT) Competency Examination		0
Foreign Culture (FC)		3
Visual and Performing Arts (VP)		3
Philosophy and Letters (PL)		3
Social Sciences (SS)		3
PHY 2131	Physics for the Life Sciences Laboratory	1