

MASTER OF ENGINEERING IN ELECTRIC VEHICLES

Home Department: Graduate School

Available: Off Campus Only

Program Advisor/Contact:

Dean of the Graduate School & Sponsored Research
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Program Overview

The Master of Engineering in Electric Vehicles program is designed for engineering professionals working in the mobility (automotive) industry. Students can broaden their skill set for careers in Electric Vehicle design and development. All students must complete two mobility systems fundamentals courses (which two depend on your undergraduate degree), courses on automotive controls and signal processing, two management courses, and four technical courses specifically in Electric Vehicles.

Program Objectives

All graduates of the Master of Engineering in Electric Vehicles program will:

- Deepen their knowledge and increase their mastery of technical areas in Electric Vehicle design and development.
- Be better prepared to advance in positions of technical and/or managerial leadership.
- Develop their ability to sustain a life-long career in engineering, through continuing self-directed learning and professional development activities.

To receive the MEng Electric Vehicles degree a student must complete 30 credit hours of approved graduate work. There is no option for thesis work.

Graduate Assistantship

There are no opportunities for graduate assistant positions in the M. Eng. Program.

Program of Study (Total Credit Hours: 30)

Required Courses

Automotive Fundamentals (Students with an undergraduate degree in engineering take the two courses outside of their undergraduate major. Students without an undergraduate engineering degree take all three.)

MENG-6013 Electrical and Computer Engineering Principles for Mobility Systems

MENG-6023 Industrial and Manufacturing Engineering Principles for Mobility Systems

MENG-6033 Mechanical Engineering Principles for Mobility Systems

Engineering Courses

MENG-6303 Digital Signal Processing Techniques for Automotive Engineering

MENG-6323 Automotive Control Systems

Management Courses

MENG-6093 Technology Management

MENG-6193 Project Management

Electrified Vehicle Core

MENG-6213 Energy Storage Sys w/ EV App

MENG-6263 Power Electronics for Vehicle Electrification

MENG-6463 Introduction to Vector Control of AC Electric Machines

MENG-6453 Introduction to Electrified Vehicle Propulsion