It's an exciting time to study automotive engineering at U-M

College of Engineering
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About Michigan Interdisciplinary and Professional Engineering (InterPro)
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Learn More About the Master of Engineering in Automotive Engineering Program
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Margaret Wooldridge
Director of Automotive Engineering Program
Co-Director of Global and Manufacturing Engineering Program
Arthur F. Thurnau Professor of Mechanical Engineering and Aerospace Engineering

Putting Engineers in the Driver’s Seat
Graduates with the 30-credit hour Master of Engineering in Automotive Engineering (M.Eng.) from the University of Michigan will be ready to take on one of our greatest industrial challenges—redefining the modern vehicle and the future of transportation. In addition to opportunities in the automotive industry, graduates of the U-M Master of Engineering in Automotive Engineering Program will be in demand throughout the broad transportation sector, in government laboratories, transportation analysis and forecasting, commodities, power and infrastructure, and in regulatory programs and policy.

Learn more at: AutomotiveEng.engin.umich.edu
Program Requirements

The M.Eng. degree in Automotive Engineering requires a total of 30 credit hours of course work, of which at least 27 hours must be graded, and at least 21 credit hours must be in courses at the 500-level and above. A minimum grade point average of 5.0/9.0 ("B" average) is also required. The credits will be distributed in categories arranged to meet each individual's degree objectives:

- **Systems Engineering Core**
  (9 credits, graded)

- **Engineering Electives**
  (9 credits, graded)

- **Management and Human Factors**
  (6 credits, graded)

- **Automotive Engineering Seminar and Capstone Project**
  (6 credits, AUTO 501, (graded), AUTO 503)

There are over 200 sensors in the modern vehicle.

Today, more than ever, automotive engineering is one of the most technologically interesting and compelling specialties available. Experts in automotive engineering are poised to develop innovations that will change society and address a wide variety of global problems.

Consistently rated as one of the five best Colleges of Engineering in the country, U-M offers top-ranked academics. The U-M Master of Engineering in Automotive Engineering is an advanced professional degree program that is designed specifically for today's modern engineering world. It emphasizes engineering fundamentals and practice with focus on recent advances in automotive engineering.

The curriculum offers courses on state of the art and cutting-edge engineering systems such as Energy Generation and Storage using Modern Materials; Advanced Energy Solutions; Ecological Sustainability in Design and Manufacturing; Modeling, Analysis, and Control of Electric Hybrid Vehicles; and Fuel Cells and Fuel Processors. These courses are taught by U-M faculty who are international subject experts, and they are offered in flexible format with on-campus and distance learning options.

Students who graduate from this program will have strengths in modern automotive systems, engineering fundamentals, enhanced interdisciplinary skills, and the teamwork skills necessary to guide product and process development in this rapidly evolving field. The State of Michigan is and will continue to be a leader in automotive manufacturing, which creates a synergistic learning interchange with U-M.

A highlight of the program for many students is the Capstone Project. While developing an industrial project, students have the opportunity for close interaction with the faculty, with other team members, and with industrial leaders.

Overview

The Master of Engineering in Automotive Engineering is a 30-credit hour course that may be taken on campus or through online learning. A full-time student can complete the program in one year.

The program is designed to achieve the following goals:

- Strengthen the technical competence and depth of automotive engineers by teaching them advanced skills in their engineering discipline.

- Broader the horizons of automotive engineers by exposing them to the wide spectrum of interdisciplinary engineering activities involved in the process of development, design, and manufacturing of complex automotive systems.

- Provide automotive engineers with an enhanced understanding of related disciplines as well as management and human factors issues related to the design and marketing of automotive systems.

- Provide automotive engineers with practical experience in team building, carrying out projects in interdisciplinary teams, and in developing and managing projects.

Prerequisites for Admission

- Bachelor's degree in engineering or related science.

- At least two years of college engineering mathematics.

- The equivalent of 18 months of full-time industrial experience in automotive engineering.

- A one-page statement of purpose, two letters of recommendation, and official undergraduate and graduate (if applicable) transcripts are required.

- The Graduate Record Examination (GRE) general test is highly recommended but not required. (Students seeking financial aid must submit GRE scores).

- For international students, the Test of English Language Proficiency (TOEFL), the Michigan English Language Assessment (MELAB), or the IELTS test is required unless they have successfully completed a Bachelor of Science in an English speaking country.

Get Your Degree Online

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Education is accelerating the transformation of the automotive industry.
A New Interdisciplinary Graduate Degree Program Preparing Students to Lead and Succeed in an Exciting, Rapidly Expanding Field that Brings Technology to Life

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