Master of Engineering in Global Automotive and Manufacturing Engineering

The General Motors Technical Education Program (TEP) is collaborating with the University of Michigan to offer the unique new Master of Engineering in Global Automotive and Manufacturing Engineering. The Global M. Eng. degree program provides the intellectual and academic resources of the world’s leading institutions to General Motors’ technical professionals worldwide.

Strategically designed to build and develop a global organizational capability and profound knowledge in areas core to the industry, this is the only engineering master’s program that brings people together from both the automotive product development and manufacturing areas from throughout the world.

“Students will be changed by virtue of the cutting-edge knowledge and skills they will acquire through this program. They will become technical leaders who can think, learn, and apply what they’ve learned to improve GM’s competitive advantage in the global automotive industry.”

—Gary Cowger, Group Vice President Global Manufacturing and Labor Relations

The aim of the program is to foster technical leaders who understand the total process of product creation, from automotive system design to manufacturing, and who possess both breadth and depth in engineering disciplines as well as management skills. The program also provides students with the opportunity to work on a team project in a global setting. Students who graduate from this program will have the skills necessary to guide product and process development and manufacturing in this exciting global industry.

With more than 30 of the world’s leading higher education academic institutions participating in the Global M Eng degree, the flexible curriculum design allows students to import up to 12 credits of pre-approved coursework from these universities. The program draws on the unique strengths and multicultural perspectives of these outstanding universities, providing students with a unique opportunity to learn from leading faculty who are renowned, international experts in their fields. This incredible array of universities and talented instructors will bring leading edge developments, technologies and fresh creative thinking into General Motors. Through this rigorous degree program, the best universities and faculty from across the nation and the world have joined forces to provide GM employees with a global perspective on the latest technological advancements and knowledge in areas core to GM business. Graduates will be transformed by virtue of the cutting-edge knowledge and skills they will gain from their exposure to the world’s foremost researchers and faculty from the best higher education institutions known to the global automotive industry.

Both TEP and the University of Michigan, through the Center for Professional Development and the Office of Interdisciplinary Professional Programs, enhance the educational experience by developing and delivering programs and services that enable students to be more effective, productive and internationally competitive. Delivered through the convenience of distance learning technology, this innovative degree program provides high quality, flexible education from world-renowned universities, made easily accessible for GM professionals. GM covers all program tuition and admission fees, reference books, and software expenses. Interested employees are invited to visit the TEP website or contact your local TEP Site Administrator for additional information.
Program Curriculum

Virtual Team Building Seminar

Systems Integration [6 credits]
- Integrated Vehicle Systems Design
- Manufacturing System Design

Engineering Core [6 credits]
- Design for Manufacturability
- Quality Engineering

Management and Systems [6 credits]
- Environmental Systems in the Automotive Industry
- Global Organizational Behavior
- Project Management
- Global Product Development
- Global Supply Chain Management

Engineering Specialties [9 credits]
Choose from the following 10 specialties:
- Chassis
- Engineering Design
- Engineering Quality, Reliability, Durability
- HVAC/PTC/Thermal Engineering
- Interior
- Powertrain
- Structure and Closures
- Vehicle Electrical Systems
- Vehicle Performance
- Manufacturing

Global Capstone Project [3 credits]

Admission Requirements

- Four-year Bachelor’s degree in Engineering or Physical Sciences, in good standing
- A minimum of one year of industrial work experience
- Two letters of recommendation

Graduation Requirements

The graduate degree requires 30 credit hours of course work
- 18-credit hours of the 30 must be UM coursework [up to 12-semester credits of non-UM coursework may be transferred]
- At least 15 credit hours must be UM courses at 500-level or above [including Auto501, MFG502, and Auto/MFG503]. A total of at least 21 hours must be at 500 level or above, including transfer credits.
- At least 27 credit hours must be letter graded [not pass/fail]
- Complete the UCLA course “High Performance Distributed Technical Teams” within the first year from the date of first enrollment in the program
- The global component of the education will be satisfied by one of the following:
  1. Successfully complete a course on the approved Plan of Study whose credit comes from a TEP-UM approved university outside the native country of the student, or from a TEP-UM approved university with significant international participation in course instruction.
  2. Successfully completing AUTO/MFG503 with a project team consisting of members from more than two countries.
- A minimum grade point average of 5.0/9.0 [B average]

For more information, please call the GM Technical Education Program at [586] 947-0782 or visit their website at http://tep.gm.com.