MECHANICAL ENGINEERING, MASTER OF ENGINEERING (M.ENG.)

Non-thesis only: 30 credits required

All Professional Master of Engineering Programs consist of 10 courses/30 credits. All students are expected to complete a preliminary course plan for their intended degree program. Degree planning worksheets can be found here: https://advancedengineering.umd.edu/degree-planning-sheets

Students choose one of the two focus areas and take five core courses and five electives from that area. Electives must be approved by their advisor.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>Select five core courses and five electives from one of the following focus areas:</td>
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**General Mechanical core course options:**
- ENME600  Engineering Design Methods
- ENME605  Advanced Systems Control
- ENME607  Engineering Decision Making and Risk Management
- ENME610  Engineering Optimization
- ENME631  Advanced Conduction and Radiation Heat Transfer
- ENME632  Advanced Convection Heat Transfer
- ENME640  Fundamentals of Fluid Mechanics
- ENME662  Linear Vibrations
- ENPM652  Applied Finite Element Methods
- ENPM671  Advanced Mechanics of Materials
- ENME690  Mechanical Fundamentals of Electronic Systems
- ENME712  Measurement, Instrumentation and Data Analysis for Thermo-Fluid Processes

**Energy and The Environment core course options:**
- ENME647  Multiphase Flow and Heat Transfer
- ENPM621  Heat Pump and Refrigeration Systems Design Analysis
- ENPM622  Energy Conversion I - Stationary Power
- ENPM623  Engineering Combustion Emissions for Air Pollution Control
- ENPM624  Renewable Energy Applications
- ENPM625  Heating, Ventilation and Air Conditioning of Buildings
- ENPM626  Waste and Biomass Energy Conversion
- ENPM627  Environmental Risk Analysis
- ENPM635  Thermal Systems Design Analysis
- ENPM651  Heat Transfer for Modern Application
- ENPM654  Energy Systems Management
- ENPM656  Energy Conversion II -- Mobile Power

Total Credits 30