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://mage.umd.edu/degree-planning-sheets (https://mage.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.

Course	Title	Credits
Select five core courses and five electives from one of the following focus areas:		30
General Mechanical core course options:		
ENME600	Engineering Design Methods	
ENME605	Advanced Systems Control	
ENME607	Engineering Decision Making and Risk Management	
or ENRE671	Risk Assessment in Engineering	
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	
ENPM654	Energy Systems Management	
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	Environmental Energy Security	
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**