

Specialization Electives for the MAE Mechanical Curriculum

Acceptable Spec Electives are identified in this list. Generally, these are 4000-level MAE prefix courses (EML, EGM, and EAS). There are **no substitutions** for **non-MAE** courses to count as a spec elective. *Engineering research, independent study, internship, or co-op credits cannot count.*

[EAS 4132](#): Compressible Flow

[EAS 4101](#): Aerodynamics

[EAS 4200](#): Aerospace Structures

[EAS 4240](#): Aerospace Structural Composites

[EAS 4300](#): Aerospace Propulsion

[EAS 4400](#): Stability & Control of Aircraft

[EAS 4412](#): Dynamics & Control of Space Vehicles

[EAS 4510](#): Astrodynamics

[EAS 4530](#): Space Systems Design

[EAS 4700](#): Aerospace Design I

[EAS 4710](#): Aerospace Design II

[EAS 4810C](#): Aerospace Sciences Lab & Design

[EAS 4939](#): Special Topics

[EGM 4585](#): Model/Control of Biomolecular Machines

[EGM 4590](#): Biodynamics

[EGM 4592](#): Bio-Solid Mechanics

[EGM 4853](#): Bio-Fluid Mechanics

*[EMA 4450](#): Li-ion Next Generation Batteries

[EML 4285](#): Off-Highway Vehicle Design

[EML 4292](#): Microfluidics & BioMEMS

[EML 4416](#): Solar Energy Utilization

[EML 4450](#): Energy Conversion

[EML 4461](#): Industrial Energy Management

[EML 4500C](#): Reengineering Historic Machinery

[EML 4535C](#): Automation in Production Engineering

[EML 4600](#): Refrigeration & A/C Fundamentals

[EML 4601](#): Heat & Air Conditioning System Design

[EML 4722](#): Intro to Computational Fluid Dynamics

[EML 4737](#): Hydraulics & Pneumatics

[EML 4842](#): Autonomous Vehicles

[EML 4926](#): Mechanical Consulting Practice

[EML 4930](#): Special Topics

*[BME 5580](#): Intro to Microfluidics & BioMEMS

*Any EAS/EGM/EML 5000 or 6000-level graduate course taught by MAE faculty

*denotes an acceptable course that is not a 4000-level MAE prefixed course (EML, EGM, and EAS).

Notes

Specialization electives can double-count as minor or certificate courses. However, they **cannot** double-count toward Aerospace or Mechanical Engineering degree requirements.