

## ME Technical Electives

11 units total

Select at least 7 units from the following ME courses:

		Course Title	Typically Offered
ME	305	Introduction to Mechatronics	F, W
ME	359	Fundamentals of HVAC Systems	W
ME	400	Special Problems for Advanced Undergraduates	F, W, SP
ME	401	Stress Analysis	F
ME	402	Orthopedic Biomechanics	SP
ME	404	Applied Finite Element Analysis	F,W
ME	405	Mechatronics	W, SP
ME	410	Experimental Methods in Mechanical Design I	SP
ME	412	Composite Materials Analysis and Design	F,SP
ME	415	Energy Conversion	SP
ME	416	Ground Vehicle Dynamics and Design	F
ME	423	Robotics: Fundamentals and Applications	SP
ME	431	Mechanical Design Techniques	TBD
ME	434	Enhanced Oil Recovery	W
ME	435	Drilling Engineering	F
ME	436	Petroleum Production Engineering	SP
ME	441	Single Track Vehicle Design	W
ME	442	Design of Machinery	F
ME	443	Turbomachinery	SP
ME	444	Combustion Engine Design	W
ME	450	Solar Thermal Power Systems	W
ME	456	HVAC Air and Water Distribution System Design	F
ME	457	Refrigeration Principles and Design	SP
ME	458	Building Heating and Cooling Loads	F
ME	488	Wind Energy Engineering	TBD
ME	501	Continuum Mechanics and Elasticity	F
ME	503	Inelastic Stress Analysis	W
ME	504	Finite Element Analysis	SP
ME	506	System Dynamics	SP
ME	507	Mechanical Control System Design	F
ME	517	Advanced Vibrations	SP
ME	518	Machinery Vibration and Rotor Dynamics	W
ME	540	Viscous Flow	W
ME	541	Advanced Thermodynamics	TBD
ME	542	Dynamics and Thermodynamics of Compressible Flow	F
ME	552	Advanced Heat Transfer I	F
ME	553	Advanced Heat Transfer II	W
ME	554	Computational Heat Transfer	SP
ME	556	Advanced Heat Transfer III	SP
ME	579	Fluid Power Control	TBD

- Consultation with advisor is recommended prior to selecting technical electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.
- ME 470, ME 471, ME 570 and ME 571 are variable topics courses and may or may not count as ME electives. Please contact instructor for additional information. A course substitution form is required.
- ME 400 and ME 500 are independent study classes and may be acceptable for technical elective credit. A course substitution form is required.

**Select up to 4 units of non-ME courses from:** Any upper division or graduate level course in the College of Engineering with the exception of GE Area F, senior project, thesis, special problems, and coop courses.