

## AEROSPACE ENGINEERING TECHNICAL ELECTIVES

Aerospace Engineering majors are required to complete one TE.

*-Not all courses are offered each year/quarter.*

*-All prerequisites are enforced.*

**The following classes that are not already required for your major are approved as TEs:**

MAE 101D	Intermediate Heat Transfer
MAE 110	Thermodynamic Systems ( <i>formerly 110B</i> )
MAE 118	Intro to Energy Systems
MAE 119	Intro to Renewable Energy: Solar & Wind
MAE 120	Intro to Nuclear Energy
MAE 133	Finite Element Methods
MAE 131B	Solid Mechanics II
MAE 131C	Solid Mechanics III
MAE 140	Linear Circuits ( <i>only for students following the FA17 catalog</i> )
MAE 144	Embedded Control and Robotics
MAE 145	Intro to Robotic Planning and Estimation
MAE 149	Sensor Networks
MAE 150	Computer-Aided Design ( <i>only for students following the FA17 catalog</i> )
MAE 180A	Spacecraft Guidance I ( <i>only for students following a pre-FA17 catalog</i> )
MAE 181	Space Mission Analysis and Design
MAE 199	Independent Study ( <i>2 quarters of MAE 199 can be used for 1 TE under certain circumstances. See our website, mae.ucsd.edu, for details.</i> )
SE 131	Finite Element Analysis
SE 142	Design of Composite Structures
SE 163	Nondestructive Evaluation

**MAE 160 is not an approved TE due to overlapping material in SE 160A/B.**

### GRADUATE COURSES.\*

MAE 207	Topics in Engineering Science
MAE 210A	Fluid Mechanics I (graduate level)
MAE 211	Intro to Combustion
MAE 212	Introductory Compressible Flow
MAE 213	Mechanics of Propulsion
MAE 220A	Physics of Gases
MAE 221A	Heat Transfer (graduate level)
MAE 280A	Linear Systems Theory
SE 201A	Advanced Structural Analysis
SE 202	Structural Stability
SE 203	Structural Dynamics
SE 204	Advanced Structural Dynamics
SE 205	Nonlinear Mechanical Vibrations
SE 207	Topics in Structural Engineering
SE 252	Experimental Mechanics and NDE
SE 253A	Mechanics of Laminated Composite Structures I

\* Enrollment in graduate courses requires approval by the instructor and course dept.

*All TEs must be taken for a letter grade. No P/NP grades allowed except in MAE 199.*

*If you enroll in a course on this list and it is not shown on your degree audit, please notify an MAE undergraduate advisor.*