AEROSPACE ENGINEERING
TECHNICAL ELECTIVES

-Aerospace Engineering majors following the Fall 2019 catalog must complete two TE’s.
-Aerospace Engineering majors following a pre-Fall 2019 catalog must 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 108        Probability and Statistical Methods
MAE 110        Thermodynamic Systems (formerly 110B)
MAE 118        Intro to Energy & Environment
MAE 119        Intro to Renewable Energy: Solar & Wind
MAE 120        Intro to Nuclear Energy
MAE 122        Flow & Transport in the Environment
MAE 130        Advanced Vibrations (only for students following the FA19 catalog)
MAE 131B       Solid Mechanics II
MAE 133        Finite Element Methods
MAE 144        Embedded Control and Robotics
MAE 146        Introduction to ML Algorithms
MAE 145        Robotic Planning and Estimation
MAE 148        Intro to Autonomous Vehicles
MAE 149        Sensor Networks
MAE 150        Computer-Aided Design (only for students following the FA17, FA19 catalogs)
MAE 154        Product Design & Entrepreneurship
MAE 181        Space Mission Analysis and Design
MAE 184        Flight Simulation Techniques
MAE 190        Design of Machine Elements  (Note: Must be this specific course topic)
MAE 199        Independent Study (2 quarters of MAE 199 can be used for 1 TE under
certain circumstances. See our website, mae.ucsd.edu, for details.)

SE 120        Engineering Graphics and Computer-Aided Structural Design
SE 131        Finite Element Analysis
SE 142        Design of Composite Structures
SE 143A       Aerospace Structural Design I
SE 143B       Aerospace Structural Design II
SE 163        Nondestructive Evaluation
SE 171        Aerospace Structures Repair

ECE 120       Solar System Physics
ECE 172A      Introduction to Intelligent Systems
MATH 102      Applied Linear Algebra
MATH 120A     Elements of Complex Analysis
MATH 175      Numerical Methods for Partial Differential Equations
MATH 187      Intro to Cryptography

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

MAE 200  Controls
MAE 201  Mechanics of Fluids
MAE 202  Thermal Processes
MAE 203  Solid Mechanics and Materials
MAE 204  Robotics
MAE 206  Energy Systems
MAE 208  Mathematics for Engineers
MAE 211  Intro to Combustion
MAE 212  Introductory Compressible Flow
SE 201A  Advanced Structural Analysis
SE 202  Structural Stability
SE 203  Structural Dynamics

* Enrollment in graduate courses requires approval by the instructor and course dept via an EASy request.

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

For information about receiving TE credit for courses not on this list, please contact a MAE undergraduate advisor: mae-ugradadm@eng.ucsd.edu