Technical Electives:

A technical elective should be an upper division engineering class that builds on fundamental mechanical engineering concepts and develops expertise for a professional career. Classes must be lecture based and two units minimum. Graduate classes are acceptable for qualified students with approval of the advisor. Students are encouraged to choose two classes that complement each other.

Classes:
- MECH132: Fluid Mechanics II
- MECH143/ELEN123/COEN123: Mechatronics
- MECH144: Smart Product Design
- MECH145: Introduction to Aerospace
- MECH146: Mechanism Design
- MECH151: Finite Element Theory and Applications
- MECH152: Composite Materials
- MECH156/ELEN156: Introduction to Nanotechnology
- MECH254/BIOE154: Introduction to Biomechanics
- MECH371: Space Systems Design and Engineering I
- MECH 372: Space Systems Design and Engineering II
- ELEN110: Linear Systems
- ELEN115: Electronic Circuits I
- ELEN160: Chaos Theory
- CENG123: Environmental Reaction Engineering
- CENG132: Structural Analysis
- ELEN164: Introduction to Power Electronics

Mathematics and Science Electives:

A math/science elective is intended to fill out a student’s knowledge in an area of their interest. The course should be at a level appropriate for science and engineering students. Students are encouraged to choose a course which may support their engineering classes.

Classes:
- MATH53: Linear Algebra
- MATH102: Advanced Calculus
- MATH105: Theory of Functions of a Complex Variable
- MATH144: Partial Differential Equations
- MATH155: Ordinary Differential Equations
- AMTH108: Probability and Statistics
- MECH102: Introduction to Mathematical Methods in Mechanical Engineering
- AMTH/MECH 120: Engineering Mathematics
- CHEM12: General Chemistry II
- BIOL21: Introduction to Physiology
- BIOE21: Introduction to Physiology
- PHYS34: Physics for Scientists and Engineers IV
- PHYS101: Analytical Mechanics I
- PHYS102: Analytical Mechanics II
- PHYS161: Introduction to Astrophysics
- CENG20: Geology