MECHANICAL ENGINEERING -
GENERAL CONCENTRATION

ME 326  Intermediate Dynamics  4
ME 418  Implementation of Mechanical Controls  4
or ME 419  Advanced Control Systems
ME 428  Senior Design Project I  2
ME 429  Senior Design Project II  2
ME 430  Senior Design Project III  2

Technical Electives  2,3,4
Select from the following:  11-12

- ME 305  Introduction to Mechatronics
- ME 359  Fundamentals of HVAC Systems
- ME 401  Stress Analysis
- ME 402  Orthopedic Biomechanics
- ME 403  Access by Design: Introduction to Rehabilitation Engineering
- ME/CE 404  Applied Finite Element Analysis
- ME 405  Mechatronics
- ME 410  Experimental Methods in Mechanical Design I
- ME 412  Composite Materials Analysis and Design
- ME 415  Energy Conversion
- ME 416  Ground Vehicle Dynamics and Design
- ME 423  Robotics: Fundamentals and Applications
- ME 431  Mechanical Design Techniques
- ME 434  Enhanced Oil Recovery
- ME 435  Drilling Engineering
- ME 436  Petroleum Production Engineering
- ME 437  Nuclear Energy Power Generation
- ME 438  Nuclear Power Plant Design
- ME 439  Nuclear Power Plant Operations
- ME 441  Single Track Vehicle Design
- ME 442  Design of Machinery
- ME 443  Turbomachinery
- ME 444  Combustion Engine Design
- ME 450  Solar Thermal Power Systems
- ME 453  Trends and Opportunities in HVAC&R
- ME 454  Benchmarking and Assessment of Building Energy Performance
- ME 455  Introduction to Building Energy Modeling
- ME 456  HVAC Air and Water Distribution System Design
- ME 457  Refrigeration Principles and Design
- ME 458  Building Heating and Cooling Loads
- ME 488  Wind Energy Engineering
- ME 501/CE 511  Continuum Mechanics and Elasticity
- ME 503/CE 513  Inelastic Stress Analysis
- ME/CE 504  Finite Element Analysis
- ME 506  System Dynamics
- ME 507  Mechanical Control System Design
- ME 517  Advanced Vibrations
- ME 518  Machinery Vibration and Rotor Dynamics
- ME 540  Viscous Flow
- ME 541  Advanced Thermodynamics
- ME 542  Dynamics and Thermodynamics of Compressible Flow
- ME 552  Advanced Heat Transfer I
- ME 553  Advanced Heat Transfer II
- ME 554  Computational Heat Transfer
- ME 556  Advanced Heat Transfer III
- ME 579  Fluid Power Control

Select 0 - 4 units from:
- Any upper-division or graduate level course in the College of Engineering with the exception of GE Upper-Division B, ENGR 301, senior project, thesis, special problems and co-op courses.

Total units: 25-26

1 ENGR 459, ENGR 460 and ENGR 461 (6), or ENGR 463, ENGR 464 and ENGR 465 (6) may substitute for ME 428, ME 429 and ME 430 (6).
2 Consultation with advisor is recommended prior to selecting Technical Electives. Note that 300-level Technical Electives cannot be used for graduate credit in the blended BS + MS Mechanical Engineering program.
3 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 may be required.
4 ME 400 and ME 500 are independent study classes and may be acceptable for Technical Elective credit. A course substitution form is required.