

MECHANICAL ENGINEERING (BS)

Program Requirements

Code	Title	Hours
Required General Education Courses		
PHIL-3250	Ethics	3
THEO-2000	Christian Moral Life	3
Science and Mathematics Courses		
CHEM-1200 & CHEM-1201	General Chemistry I Lecture and General Chemistry I Lab	4
MATH-1300	Calculus I	4
MATH-1350	Calculus II	4
MATH-2300	Calculus III	4
MATH-3100	Differential Equations	3
PHYS-2100 & PHYS-2101	Classical Physics I and Classical Physics I Lab	4
PHYS-2110 & PHYS-2111	Classical Physics II and Classical Physics II Lab	4
Engineering Courses		
EENG-2060 & EENG-3060 or PHYS-3500	Linear Circuit Analysis I and Circuits Laboratory I or Electronics	4
ENGR-1200	Introduction to Engineering	2
ENGR-1500	Technical Drawing	2
ENGR-1520	Intro to Engineering Design Laboratory	1
ENGR-2000 or CSCI-2300	Computer Applications in Engineering or Programming for Scientists & Engineers	2
ENGR-2300	Statics ²	3
ENGR-2310	Dynamics ²	3
ENGR-2320	Mechanics of Materials ²	3
ENGR-3150	Statistical Analysis of Data	3
ENGR-3170	Engineering Economy & Society	3
ENGR-3250	Thermodynamics	3
ENGR-3300	Fluid Mechanics	3
ENGR-3400	Materials Laboratory	2
ENGR-3410	Thermofluids Laboratory	2
ENGR-3500	Materials Science	3
ENGR-3600	Heat & Mass Transfer	3
MENG-3180	Manufacturing Process Lab I	1
MENG-3220	Design of Machinery	3
MENG-3240	Junior Design	2
MENG-4240	System Dynamics & Control	3
MENG-4600	Engineering Design I	3
MENG-4610	Mechanical Engineering Design II	3
MENG-4700	Senior Seminar	1
MENG-4730	Mechanical Measurements & Control Lab	2
Mechanical Engineering (ME) Electives ¹		15
MENG-COMP	Senior Comprehensive Exam	0
Total Hours		108

¹ At least 9 credits of ME electives must be primary ME electives, which are generally MENG courses numbered 3000 or above (that are not MENG degree requirements).

Up to six hours of ME electives can come from an approved list of secondary ME electives, which includes specific courses from other engineering disciplines.

² Student must declare an engineering major (Chemical, Civil, Electrical, Mechanical) to register for this class.

Courses required for the major may be repeated but students must pass all required courses on their first or second attempt.

Mechanical Engineering (ME) Electives

Primary ME Electives

At least 9 credits of ME electives must be primary ME electives, which are generally MENG courses numbered 3000 or above (that are not MENG degree requirements).

Code	Title	Hours
MENG-3820	Ergonomics	3
MENG-4810	Vibration & Structural Dynamics	3
MENG-4820	Intro to Finite Element Analysis	3
MENG-4830	Environmental Stewardship	3
MENG-4840	Introduction to Robotics	3
MENG-4850	Heating, Air Conditioning & Ventilation	3
MENG-4860	Intermediate Thermodynamics	3
MENG-4910	Intermediate Fluid Dynamics	3
MENG-4920	Nonlinear Dynamics & Chaos	3

Secondary ME Electives

Up to six hours of ME electives can come from an approved list of secondary ME electives, which includes specific courses from other engineering disciplines.

Code	Title	Hours
CIVL-3120	Soil Mechanics	3
CIVL-3310	Environmental Engineering	3
CIVL-4140	Foundation Engineering	3
EENG-3130	Linear Circuit Analysis II	3
ENGR-3901 & ENGR-3902	Engineering for Human Development I and Engineering for Human Development II	3
ENGR-4150	Design Engineering Experiments	3
ENGR-4830	Project Engineering	3
ENGR-4840	Quality Engineering	3
MATH-3300	Numerical Computation	3
PHYS-4300	Optics	3