

MINOR IN MECHANICAL ENGINEERING

To earn the Minor in Mechanical Engineering, a student must complete at least 12 of the required 21 core and elective units at SF State. Each of the courses in the minor must be taken for a letter grade (CR/NC is not acceptable).

The purpose of the Minor in Mechanical Engineering is to give students from science and other branches of engineering the opportunity to learn the fundamentals of mechanical engineering, to broaden their understanding of science and engineering, and to prepare them for new technological developments such as material science and nanotechnology. Additional knowledge in control and robotics, mechanical design, or thermal-fluids may be acquired through electives. Students interested in the Minor in Mechanical Engineering must meet with the program coordinator and complete the Mechanical Engineering Minor Program Approval Form. Revision of the form requires the approval of the program coordinator.

All coursework used to satisfy the requirements of the minor must be completed with a GPA of 2.0 or better.

Mechanical Engineering, Minor – 21 units

Prerequisite Requirements (32 units)

The minor is intended for students who have satisfied the following prerequisite requirements:

Code	Title	Units
MATH 226	Calculus I	4
MATH 227	Calculus II	4
MATH 228	Calculus III	4
MATH 245	Elementary Differential Equations and Linear Algebra	3
PHYS 220 & PHYS 222	General Physics with Calculus I and General Physics with Calculus I Laboratory	4
PHYS 230 & PHYS 232	General Physics with Calculus II and General Physics with Calculus II Laboratory	4
PHYS 240 & PHYS 242	General Physics with Calculus III and General Physics with Calculus III Laboratory	4
CHEM 115	General Chemistry I: Essential Concepts of Chemistry	5

The minor may be satisfied by a minimum of 21 units (not including prerequisite units) distributed as follows:

Core Requirements (15 units)

Code	Title	Units
ENGR 102	Statics	3
ENGR 200	Materials of Engineering	3
ENGR 201	Dynamics	3
ENGR 303	Engineering Thermodynamics	3
ENGR 309	Mechanics of Solids	3

Electives (6 units)

Approved upper division Mechanical Engineering courses, all within one of the Mechanical Engineering Focus areas. No upper division course from the major can be double-counted towards meeting the elective requirements of the minor or second major. There must be prior approval from the program head.