

MAJOR IN MECHANICAL ENGINEERING

(101 credits)

- Engineering students follow a modified General Education requirement that includes a Basic Communication course ([ENG170 Writing and Rhetoric](#) or [ENG206 Advanced Writing and Rhetoric](#)¹ or equivalent), plus one course from each of the following six GE categories:

- United States Studies
- World Civilizations & Cultures
- Western Civilization
- Humanities
- Social Sciences
- The Arts

- [Degree requirements](#) include completion of a designated Diversity course.
- A minimum of 125-126 credits is required to complete the Bachelor's degree in Mechanical Engineering.
- Students may not enroll in any engineering course unless all prerequisites have been met with a grade of C- or better.
- Students are required to receive grades of C- or better in any course that is used to satisfy engineering major requirements.

Code	Title	Credits
Required Math/Science Courses (33 Credits)		
MAT251	Calculus I	4
MAT252	Calculus II	4
MAT353	Calculus III	4
MAT359	Ordinary Differential Equations	3
MAT362	Linear Algebra	3
MAT380	Applied Probability and Statistics	3
CHE201 & CHE211	General Chemistry I and General Chemistry I Lab	4
PHY201 & PHY211	General Physics 1 and Physics 1 Laboratory	4
PHY202 & PHY212	General Physics 2 and General Physics 2 Lab	4
Core Engineering Courses (68 Credits)		
EGG101	Introduction to Engineering Science	3
EGC251	C/C++ Programming	3
EGM211	Statics	3
EGM212	Dynamics	3
EGM213	Dynamics Laboratory	1
EGM221	Engineering Materials	3
EGM302	Intro to Finite Element Analysis	3
EGM311	Kinematics of Machines	3
EGM312	System Dynamics	3
EGM322	Mechanics of Materials	3
EGM323	Materials Lab	1
EGM331	Thermodynamics	3
EGM332	Fluid Mechanics	3
EGM333	Thermo-Fluids Lab	1

EGM334	Heat Transfer	3
EGM335	Thermo System Design	3
or EGM336	HVAC	
EGM340	Mechanical Measurements	3
EGE200 & EGE201	Circuit Analysis and Circuits Laboratory	4
EGE331	Computer Simulation	3
EGG408	Senior Design Project I ²	2
EGG409	Sr Design Project 2 ²	2
Professional Electives³		12
Total Credits		101

¹ Prerequisite for ENG170 Writing and Rhetoric: ENG160 Composition I or English Placement Level 4.

Prerequisite for ENG206 Advanced Writing and Rhetoric: ENG160 Composition I with minimum grade of B or English Placement Level 5.

² Seniors must register for Senior Design Project during each of the last two semesters preceding their graduation. A single project under the direction of a single faculty member will be spread over the two semesters. This project should provide a meaningful engineering design experience and should draw on the student's cumulative technical background.

³ Professional electives must be chosen from the Division of Engineering Programs' list of approved courses or from its upper-division (300- or 400-level) course offerings. Students must meet all necessary prerequisite coursework and obtain their advisor's approval prior to taking any Professional Elective.