

# MAJOR IN MECHANICAL ENGINEERING

(101 credits)

- Students majoring in Engineering follow a modified General Education program based on the New Paltz GE program in effect at the time of matriculation. In all cases, modifications meet or exceed SUNY's minimum General Education requirement and are reflected in students' progress reports.
- A minimum of 125 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 earn a grade of C- or better in any Math/Science Foundation, Core Engineering, or Core Mechanical Engineering course and a grade of D- or better in any Advanced Mechanical Engineering course used to satisfy Mechanical Engineering major requirements.

Code	Title	Credits
<b>Math/Science Foundation Courses (33 Credits)</b>		
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
<b>Core Engineering Courses (17 Credits)</b>		
EGG101	Introduction to Engineering Science	3
EGC251	C/C++ Programming	3
EGE200 & EGE201	Circuit Analysis and Circuits Laboratory	4
EGE331	Computer Simulation	3
EGG408	Senior Design Project I <sup>1</sup>	2
EGG409	Sr Design Project 2 <sup>1</sup>	2
<b>Core Mechanical Engineering Courses (24 Credits)</b>		
EGM211	Statics	3
EGM212	Dynamics	3
EGM213	Dynamics Laboratory	1
EGM221	Engineering Materials	3
EGM311	Kinematics of Machines	3
EGM322	Mechanics of Materials	3
EGM323	Materials Lab	1
EGM331	Thermodynamics	3
EGM332	Fluid Mechanics	3
EGM333	Thermo-Fluids Lab	1
<b>Advanced Mechanical Engineering Courses (27 Credits)</b>		
EGM302	Intro to Finite Element Analysis	3

EGM312	System Dynamics	3
EGM334	Heat Transfer	3
EGM335	Thermo System Design	3
or EGM336	HVAC	
EGM340	Mechanical Measurements	3
Professional Electives <sup>2</sup>		12
<b>Total Credits</b>		<b>101</b>

<sup>1</sup> Seniors must register for EGG408 Senior Design Project I and EGG409 Sr Design Project 2 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.

<sup>2</sup> 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.