



First Year



Second Year

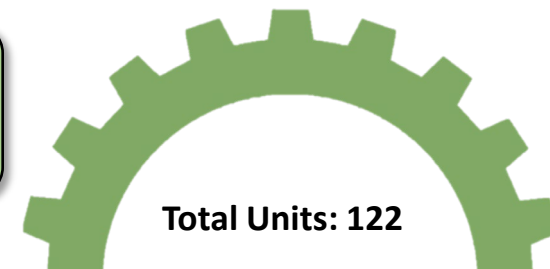
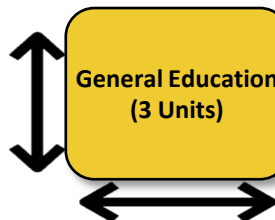
Third Year



Fourth Year

<p>MATH 30 (4 Units) <i>Calculus I</i></p> <p>Diagnostic</p>	<p>MATH 31 (4 Units) <i>Calculus II</i></p> <p>MATH 30</p>	<p>MATH 32 (4 Units) <i>Calculus III</i></p> <p>MATH 31</p>	<p>MATH 45 (3 Units) <i>Differential Equations</i></p> <p>MATH 31</p>	<p>ENGR 110 (3 Units) <i>Analytical Mechanics - Dynamics</i></p> <p>ENGR 30 MATH 32 MATH 45</p>	<p>ME 120 (3 Units) <i>Fluid Mechanics for ME</i></p> <p>[ENGR 110]</p>	<p>ME 126 (3 Units) <i>Heat Transfer</i></p> <p>ME 120 ENGR 124</p>	<p>ME Elective Course (3 Units)</p>
<p>CHEM 1E (4 Units) <i>General Chemistry For Engineers</i></p> <p>Diagnostic</p>	<p>PHYS 11A (4 Units) <i>General Physics - Mechanics</i></p> <p>MATH 30 [MATH 31]</p>	<p>PHYS 11C (4 Units) <i>General Physics – Electricity & Magnetism</i></p> <p>PHYS 11A MATH 31</p>	<p>ENGR 17 (3 Units) <i>Circuit Analysis</i></p> <p>PHYS 11C & [MATH 45] OR [PHYS 11C] & MATH 45</p>	<p>ENGR 112 (3 Units) <i>Mechanics of Materials</i></p> <p>[ENGR 6] ENGR 30 ENGR 45 MATH 45</p>	<p>ME 180 (3 Units) <i>Mechanical Properties of Materials</i></p> <p>ENGR 112</p>	<p>ME 172 (3 Units) <i>Control System Design</i></p> <p>ME 171</p>	<p>ME Elective Course (3 Units)</p>
<p>ENGR 6 (3 Units) <i>Engineering Graphics & CADD</i></p>	<p>ME 37 (3 Units) <i>Manufacturing Processes</i></p>	<p>ENGR 45 (3 Units) <i>Engineering Materials</i></p> <p>MATH 30 [CHEM 1E]</p>	<p>ENGR 30 (3 Units) <i>Analytic Mechanics – Statics</i></p> <p>PHYS 11A MATH 31</p>	<p>ME 116 (2 Units) <i>Machinery Design I</i></p> <p>[ME 37] [ENGR 112]</p>	<p>ME 117 (2 Units) <i>Machinery Design II</i></p> <p>ME 116</p>	<p>ME 190 (3 Units) <i>Program Engineering I</i></p> <p>ME 117</p>	<p>ME 191 (2 Units) <i>Program Engineering II</i></p> <p>ME 190</p>
<p>General Education (3 Units)</p>	<p>General Education (3 Units)</p>	<p>General Education (3 Units)</p>	<p>ME 76 (2 Units) <i>Programming & Problem Solving in Engineering</i></p> <p>MATH 30 [PHYS 11A]</p>	<p>ME 106 (1 Units) <i>Application of Programming in ME</i></p> <p>ME 76</p>	<p>ME 171 (3 Units) <i>Modelling & Simulation of Mechatronics/Control Systems</i></p> <p>ENGR 110 ME 76</p>	<p>General Education (3 Units)</p>	<p>ME 128 (3 Units) <i>Thermal-Fluid Systems</i></p> <p>[ME 126]</p>
		<p>General Education (2 Units)</p>	<p>General Education (3 Units)</p>	<p>ME 108 (2 Units) <i>Professional Topics in ME</i></p> <p>[MATH 31]</p>	<p>ME 138 (3 Units) <i>Product & Process Design</i></p> <p>ME 37 ME 116</p>	<p>General Education (3 Units)</p>	<p>General Education (3 Units)</p>
			<p>General Education (3 Units)</p>	<p>ENGR 124 (3 Units) <i>Thermodynamics</i></p> <p>CHEM 1E MATH 32 PHYS 11A</p>	<p>General Education (3 Units)</p>		

The course sequence shown is designed to ensure that all prerequisites (listed at the bottom of each course square) are completed prior to enrolling in a course. Concurrent requisites (courses that must either be passed beforehand or taken at the same time) are shown in [brackets]. Department Policy dictates that all courses must be passed with a grade of C- or better.





Mechanical Engineering
Elective Courses



<p>ME 114 (3 Units) <i>Vibrations</i></p> <p>ENGR 110 ME 76</p>	<p>ME 115 (3 Units) <i>Dynamics of Machinery & Multi-Body Systems</i></p> <p>ENGR 110 ME 76</p>	<p>ME 121 (2 Units) <i>Solar Thermal Energy & Energy Storage Systems</i></p> <p>ENGR 124</p>	<p>ME 122 (2 Units) <i>Geothermal & Bioenergy Systems</i></p> <p>ENGR 124</p>	<p>ME 123 (3 Units) <i>Wind, Hydro, & Ocean Energy</i></p> <p>ENGR 124 ME 120</p>	<p>ME 129 (3 Units) <i>Power Plant Engineering</i></p> <p>ENGR 124 [ME 128]</p>	<p>ME 132 (3 Units) <i>Solar Energy, Geothermal Energy, & Bioenergy Systems</i></p> <p>ENGR 124</p>	<p>ME 136 (3 Units) <i>Numerical Control Programming</i></p> <p>ME 37 ME 76</p>
<p>ME 137 (3 Units) <i>Product Design for Manufacturing & Automation</i></p> <p>ME 117</p>	<p>ME 140 (2 Units) <i>Introduction to Motors & Actuators</i></p> <p>ME 172</p>	<p>ME 141 (2 Units) <i>Introduction to Tolerance Analysis</i></p> <p>ME 116</p>	<p>ME 143 (3 Units) <i>Vehicle Dynamics & Design</i></p> <p>ENGR 110 ME 117</p>	<p>ME 145 (3 Units) <i>Vehicle Crash Reconstruction</i></p> <p>ENGR 110</p>	<p>ME 151 (3 Units) <i>Fundamentals of Combustion</i></p>	<p>ME 152 (3 Units) <i>Turbomachinery Design</i></p> <p>ME 120 ENGR 124</p>	<p>ME 153 (3 Units) <i>Thermodynamics of Combustion Engines</i></p> <p>ENGR 124 ME 120 ME 76</p>
<p>ME 154 (3 Units) <i>Alternative Energy Systems</i></p> <p>ENGR 124</p>	<p>ME 155 (3 Units) <i>Gas Dynamics</i></p> <p>ME 76</p>	<p>ME 156 (3 Units) <i>Heating & Air Conditioning Systems</i></p> <p>ENGR 124 ME 120</p>	<p>ME 157 (3 Units) <i>Solar Energy Engineering</i></p> <p>[ME 126]</p>	<p>ME 159 (3 Units) <i>High Efficiency HVAC</i></p> <p>ME 156 or Instructor Permission</p>	<p>ME 164 (3 Units) <i>Introduction to Test Automation</i></p> <p>ME 76 ME 117</p>	<p>ME 165 (3 Units) <i>Introduction to Robotics</i></p> <p>ME 76 ME 116</p>	<p>ME 173 (3 Units) <i>Applications of Finite Element Analysis</i></p> <p>ENGR 112 ME 76</p>
<p>ME 176 (3 Units) <i>Project Design & CAD</i></p> <p>ENGR 6 ME 76 ME 116</p>	<p>ME 177 (3 Units) <i>Project Design & 3D Para. Solid Modeling</i></p> <p>ENGR 6 ME 76 ME 116</p>	<p>ME 182 (3 Units) <i>Introduction to Composite Materials</i></p> <p>ME 180</p>	<p>ME 183 (3 Units) <i>Materials Selection in Engineering Design</i></p> <p>ENGR 45 [ME 116]</p>	<p>ME 184 (3 Units) <i>Corrosion & Wear</i></p> <p>ME 180</p>	<p>ME 186 (3 Units) <i>Fracture Mechanics in Engineering Design</i></p> <p>ME 180</p>	<p>ME 196A (3 Units) <i>Motion & Dynamic Analysis Using Solid Modeling</i></p> <p>ENGR 6 ME 117</p>	<p>ME 196B (3 Units) <i>Engineering Systems Approach to Product Design</i></p> <p>ME 116</p>
<p>ME 196C (3 Units) <i>Computer Programming for ME Applications</i></p> <p>ME 76</p>	<p>ME 196D (3 Units) <i>Ground Vehicle Aerodynamics</i></p> <p>ME 120</p>	<p>ME 196H (3 Units) <i>Air Resources Engineering</i></p> <p>ENGR 124 ME 120</p>	<p>ME 196M (3 Units) <i>Engineering Research Methodology & Communication</i></p> <p>ME 108</p>	<p>ME 196Q (3 Units) <i>Ceramic Materials</i></p> <p>ENGR 112</p>	<p>ME 196R (3 Units) <i>Fundamentals of Physical Metallurgy & Materials</i></p> <p>ENGR 124 or Equiv.</p>		

Prerequisites for each course are listed at the bottom of each course square. Concurrent requisites (courses that must either be passed beforehand or taken at the same time) are shown in [brackets]. Department Policy dictates that all courses must be passed with a grade of C- or better.

Please note that Mechanical Engineering Electives **are not guaranteed** to be offered every semester, please consult the [CSUS Class schedule](#) for available courses.