BS in Mechanical Engineering

Program Codes:
20FQ0133BS

Degree Requirements
To earn a Bachelor of Science in Mechanical Engineering degree from UIC, students need to complete university, college, and department degree requirements. The Department of Mechanical and Industrial Engineering degree requirements are outlined below. Students should consult the College of Engineering section for additional degree requirements and college academic policies.

Summary of Requirements
Nonengineering and General Education Requirements 53
Required in the College of Engineering 66
Technical Electives 6
Electives outside the Major Rubric 3
Total Hours 128

Nonengineering and General Education Requirements

Required Courses
ENGL 160 Academic Writing I: Writing in Academic and Public Contexts 3
ENGL 161 Academic Writing II: Writing for Inquiry and Research 3
Exploring World Cultures course a 3
Understanding the Creative Arts course a 3
Understanding the Past course a 3
Understanding the Individual and Society course a 3
Understanding U.S. Society course a 3
MATH 180 Calculus I b 4
MATH 181 Calculus II b 4
MATH 210 Calculus III b 3
MATH 220 Introduction to Differential Equations 3
CHEM 122 General Chemistry I Lecture c 4
CHEM 123 General Chemistry Laboratory I b,c 1
PHYS 141 General Physics I (Mechanics) 4
PHYS 142 General Physics II (Electricity and Magnetism) b 4
PHYS 240 Fundamentals of Modern Quantum Theory 3
or MATH 310 Applied Linear Algebra
STAT 361 Elements of Statistical Methods 2
Total Hours 53

Technical Electives
Courses
Select 6 hours from the following: 6
ME 392 Undergraduate Research
IE 342 Probability and Statistics for Engineers
ECE 458 Electromechanical Energy Conversion
CME 434 Finite Element Analysis I
Any 400-level ME course not required above
Total Hours 6

Electives Outside the Major Rubric
Electives
Electives outside the ME Rubric 3
Total Hours 3
## Sample Course Schedule

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td><strong>Freshman Year</strong></td>
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<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>MATH 180</td>
<td>Calculus I</td>
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<tr>
<td>CHEM 122</td>
<td>General Chemistry I Lecture</td>
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<td>ENGL 160</td>
<td>Academic Writing I: Writing in Academic and Public Contexts</td>
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<tr>
<td>ENGR 100</td>
<td>Engineering Orientation a</td>
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<td>MATH 181</td>
<td>Calculus II</td>
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<tr>
<td>PHYS 141</td>
<td>General Physics I (Mechanics)</td>
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<tr>
<td>ENGL 161</td>
<td>Academic Writing II: Writing for Inquiry and Research</td>
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<tr>
<td>ME 250</td>
<td>Introduction to Engineering Design and Graphics</td>
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<tr>
<td>CS 109</td>
<td>C/C ++ Programming for Engineers with Matlab</td>
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<td>MATH 210</td>
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<td>PHYS 142</td>
<td>General Physics II (Electricity and Magnetism)</td>
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<td>IE 201</td>
<td>Financial Engineering</td>
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<tr>
<td>CME 201</td>
<td>Statics</td>
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<td>CME 261</td>
<td>Materials for Manufacturing</td>
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<tr>
<td>MATH 220</td>
<td>Introduction to Differential Equations</td>
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<tr>
<td>PHYS 240 or MATH 310</td>
<td>Fundamentals of Modern Quantum Theory or Applied Linear Algebra</td>
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<tr>
<td>CME 203</td>
<td>Strength of Materials</td>
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<tr>
<td>ME 205</td>
<td>Introduction to Thermodynamics</td>
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<td>ECE 210</td>
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<td>ME 210</td>
<td>Engineering Dynamics</td>
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<td>ME 211</td>
<td>Fluid Mechanics I</td>
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<td>ME 325</td>
<td>Intermediate Thermodynamics</td>
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<td>STAT 361</td>
<td>Elements of Statistical Methods</td>
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<td>ME 308</td>
<td>Mechanical Vibrations</td>
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<td>Mechanisms and Dynamics of Machinery</td>
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<td>ME 321</td>
<td>Heat Transfer</td>
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<td>ME 347</td>
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<td>ME 312</td>
<td>Dynamic Systems and Control</td>
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<td>ME 380</td>
<td>Manufacturing Process Principles</td>
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<tr>
<td>ME 428</td>
<td>Numerical Methods in Mechanical Engineering</td>
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<tr>
<td>ME 370</td>
<td>Mechanical Engineering Design</td>
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<td>ME 396</td>
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<td>ME 341</td>
<td>Experimental Methods in Mechanical Engineering</td>
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<td>Senior Design II</td>
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<td>ME 499</td>
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*a ENGR 100 is one-semester-hour course, but the hour does not count toward the total hours required for graduation.*