# Suggested Course Plan for a UC Riverside Major in Mechanical Engineering
**(Catalog Year 2010)**

<table>
<thead>
<tr>
<th>Fall Quarter</th>
<th>Winter Quarter</th>
<th>Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td><strong>Second Year</strong></td>
<td><strong>Third Year</strong></td>
</tr>
<tr>
<td>ENGL 001A (4)</td>
<td>CHEM 001A/01LA (5)</td>
<td>ME 110 (4)</td>
</tr>
<tr>
<td>English Composition</td>
<td>General Chemistry</td>
<td>Mechanics of Materials</td>
</tr>
<tr>
<td>MATH 009A (4)</td>
<td>MATH 046 (4)</td>
<td>ME 113 (4)</td>
</tr>
<tr>
<td>First Year Calculus</td>
<td>Differential Equations</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>BREADTH (4)</td>
<td>ME 018 (3)</td>
<td>ME 114 (4)</td>
</tr>
<tr>
<td>Humanities/Social Sciences</td>
<td>Intro to Engineering Computations</td>
<td>Properties of Materials</td>
</tr>
<tr>
<td>PHYS 040C (5)</td>
<td>PHYS 040C (5)</td>
<td>STAT 100A (5)</td>
</tr>
<tr>
<td>Physics (Electricity/Magnetism)</td>
<td>Notes</td>
<td>Introduction to Statistics</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td><strong>Third Year</strong></td>
<td><strong>Fourth Year</strong></td>
</tr>
<tr>
<td>CHEM 001B/01LB (5)</td>
<td>BIOL 005A/05LA (5)</td>
<td>ME 135 (4)</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>Intro to Cell and Molecular Biology</td>
<td>Transport Phenomena</td>
</tr>
<tr>
<td>MATH 010A (4)</td>
<td>ME 100A (4)</td>
<td>ME 170B (4)</td>
</tr>
<tr>
<td>Multivariable Calculus</td>
<td>Thermodynamics</td>
<td>Mechanical Engineering Lab</td>
</tr>
<tr>
<td>ME 010 (4)</td>
<td>ME 114 (4)</td>
<td>ME 175A (2)</td>
</tr>
<tr>
<td>Statics</td>
<td>Properties of Materials</td>
<td>Professional Topics</td>
</tr>
<tr>
<td>STAT 100A (5)</td>
<td>ME 119 (4)</td>
<td>BREADTH (4)</td>
</tr>
<tr>
<td>Introduction to Statistics</td>
<td>Engineering Modeling</td>
<td>Humanities/Social Sciences</td>
</tr>
</tbody>
</table>

**Notes**
- Humanities/Social Sciences courses fulfill breadth requirements specific to the College of Engineering. A list of approved courses is available on the College of Engineering Student Academic Affairs website: [http://student.engr.ucr.edu/](http://student.engr.ucr.edu/).
- Consult with your assigned Academic Advisor for alternate course choices to fulfill the third quarter of English Composition.
- Technical Electives are courses in Mechanical Engineering which explore specific topics. A list of Technical Electives is available on the back of this Course Plan.
Mechanical Engineering
Technical Electives & Focus Areas

You must complete 4 courses (at least 16 units) of Technical Elective coursework from one Focus Area, chosen from the list below:

**General Mechanical Engineering**
- ME 100B: Thermodynamics
- ME 116B: Heat Transfer
- ME 117: Combustion & Energy Systems
- ME 121: Feedback Control
- ME 122: Vibrations
- ME 130: Kinematic and Dynamic Analysis of Mechanisms
- ME 131: Kinematic Synthesis of Mechanisms
- ME 133: Introduction to Mechatronics
- ME 136: Environmental Impacts of Energy Production & Conversion
- ME 137: Environmental Fluid Mechanics
- ME 138: Transport Phenomena in Living Systems
- ME 153: Applied Finite Element Methods
- ME 156: Mechanical Behavior of Materials
- ME 180: Optics and Lasers in Engineering
- *ME 197: Research for Undergraduates

**Materials and Structures**
- ME 100B: Thermodynamics
- ME 121: Feedback Control
- ME 153: Applied Finite Element Methods
- ME 156: Mechanical Behavior of Materials
- ME 180: Optics and Lasers in Engineering
- *ME 197: Research for Undergraduates

**Energy and Environment**
- ME 100B: Thermodynamics
- ME 116B: Heat Transfer
- ME 117: Combustion & Energy Systems
- ME 136: Environmental Impacts of Energy Production & Conversion
- ME 137: Environmental Fluid Mechanics
- ME 138: Transport Phenomena in Living Systems
- *ME 197: Research for Undergraduates

**Design and Manufacturing**
- ME 121: Feedback Control
- ME 122: Vibrations
- ME 130: Kinematic and Dynamic Analysis of Mechanisms
- ME 131: Kinematic Synthesis of Mechanisms
- ME 133: Introduction to Mechatronics
- ME 153: Applied Finite Element Methods
- ME 156: Mechanical Behavior of Materials
- ME 180: Optics and Lasers in Engineering
- *ME 197: Research for Undergraduates

*To enroll in and earn Technical Elective credit for ME 197, students must complete a project abstract using a standard template. The abstract must be signed by the project faculty advisor and submitted to the Undergraduate Program Committee chair at least one week prior to the start of the quarter of enrollment. A final project report is required.

**Notes**
The official listing for Technical Electives and Focus Areas can be found at the UCR General Catalog website: catalog.ucr.edu. Please consult with your assigned Academic Advisor for the Standard Template needed for ME 197.