Mechanical Engineering Minor

Banner Code: ME

Academic Advising
1850 Nguyen Engineering Building
Fairfax Campus
Phone: 703-993-5383
Email: mechengr@gmu.edu
Website: mechanical.gmu.edu

Mechanical Engineering is the broadest of the engineering disciplines, concerned with anything that moves or uses energy. There are two major stems in mechanical engineering: mechanical systems and thermal fluid systems. Mechanical Engineers design, build, and analyze complex devices, systems and processes that involve the conversion of energy from one form to another, the production of work, and the transport of energy and mass from one location to another. This minor provides a foundation in mechanical engineering and is most appropriate for students with a strong mathematics and science background, such as a major in another engineering or science field. The minor is administered by the Volgenau School Dean’s office.

Admissions & Policies

Admissions
To be admitted to the minor, students must have completed MATH 114 Analytic Geometry and Calculus II and PHYS 160 University Physics I (Mason Core)/PHYS 161 University Physics I Laboratory (Mason Core) with a grade of C or better.

Policies
The minor in mechanical engineering consists of a minimum of 20-21 credit hours of coursework. All students must complete 14 credit hours of core courses. They must also complete two additional elective courses. All courses must be completed with a grade of C or better.

Requirements

Minor Requirements
Total credits: 20-21

Core Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 107 or ME 151</td>
<td>Introduction to Engineering (Mason Core)</td>
<td>2</td>
</tr>
<tr>
<td>ME 211</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>ME 212</td>
<td>Solid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>ME 221</td>
<td>Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>ME 231</td>
<td>Dynamics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>14</td>
</tr>
</tbody>
</table>

Elective Requirements

Select two additional courses from the following: 6-7

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 313</td>
<td>Material Science</td>
</tr>
<tr>
<td>ME 322</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>ME 323</td>
<td>Heat Transfer</td>
</tr>
<tr>
<td>ME 341</td>
<td>Design of Mechanical Elements</td>
</tr>
<tr>
<td>ME 342</td>
<td>Design of Thermal Systems</td>
</tr>
<tr>
<td>ME 352</td>
<td>Entrepreneurship in Engineering</td>
</tr>
<tr>
<td>ME 431</td>
<td>Systems Dynamics</td>
</tr>
<tr>
<td>ME 432</td>
<td>Control Engineering</td>
</tr>
<tr>
<td>ME 454</td>
<td>Project Mgmt for Engineers</td>
</tr>
<tr>
<td>ME 471</td>
<td>Introduction to Astronautics</td>
</tr>
<tr>
<td>ME 499</td>
<td>Special Topics in Mechanical Engi</td>
</tr>
</tbody>
</table>

Total Credits 6-7