PETROLEUM ENGINEERING - BS

The Department of Petroleum Engineering offers a BS in Petroleum Engineering.

Program Requirements

The freshman year is identical for degrees in aerospace engineering, biomedical engineering, civil engineering, computer engineering, computer science, electrical engineering, electronic systems, engineering technology, industrial distribution, industrial engineering, manufacturing and mechanical engineering technology, mechanical engineering, multidisciplinary engineering technology, nuclear engineering, ocean engineering, and petroleum engineering.

The freshman year is slightly different for chemical engineering in that students take CHEM 101/CHEM 111 or CHEM 107/CHEM 112. Biomedical Engineering also requires a two semester sequence of chemistry courses consisting of CHEM 101/CHEM 111 or CHEM 107/CHEM 117 and CHEM 102/CHEM 112.

Students pursuing degrees in biological and agricultural engineering should refer to the specific curriculum for this major. It is recognized that many students will change the sequence and number of courses taken in any semester. Deviations from the prescribed course sequence, however, should be made with care to ensure that prerequisites for all courses are met.

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 104 Composition and Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 111 Foundations of Engineering I</td>
<td>2</td>
</tr>
<tr>
<td>MATH 151 Engineering Mathematics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 218 Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>University Core Curriculum (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum</a>)</td>
<td>3</td>
</tr>
<tr>
<td></td>
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Spring

<table>
<thead>
<tr>
<th></th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 107 General Chemistry for Engineering Students</td>
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</tr>
<tr>
<td>CHEM 117 General Chemistry for Engineering Students Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 112 Foundations of Engineering II</td>
<td>2</td>
</tr>
<tr>
<td>MATH 152 Engineering Mathematics II</td>
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</tr>
<tr>
<td>PHYS 208 Electricity and Optics</td>
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<tr>
<td>University Core Curriculum (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum</a>)</td>
<td>3</td>
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</table>

Total Semester Credit Hours 33

Second Year

<table>
<thead>
<tr>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
</tr>
<tr>
<td>Select one from:</td>
</tr>
<tr>
<td>COMM 203 Public Speaking</td>
</tr>
<tr>
<td>COMM 205 Communication for Technical Professions</td>
</tr>
<tr>
<td>ENGL 210 Technical and Business Writing</td>
</tr>
<tr>
<td>GEOL 104 Physical Geology</td>
</tr>
<tr>
<td>MATH 251 Engineering Mathematics III</td>
</tr>
<tr>
<td>MEEN 221 Statics and Particle Dynamics</td>
</tr>
<tr>
<td>PETE 225 Introduction to Drilling Systems</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Spring</td>
</tr>
<tr>
<td>CVEN 305 Mechanics of Materials</td>
</tr>
<tr>
<td>MATH 308 Differential Equations</td>
</tr>
<tr>
<td>MEEN 315 Principles of Thermodynamics</td>
</tr>
<tr>
<td>PETE 311 Reservoir Petrophysics</td>
</tr>
<tr>
<td>University Core Curriculum (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum</a>)</td>
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<tr>
<td></td>
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<tr>
<td>Third Year</td>
</tr>
<tr>
<td>Fall</td>
</tr>
<tr>
<td>GEOL 404 Geology of Petroleum</td>
</tr>
<tr>
<td>PETE 301 Petroleum Engineering Numerical Methods</td>
</tr>
<tr>
<td>PETE 310 Reservoir Fluids</td>
</tr>
<tr>
<td>PETE 314 Transport Processes in Petroleum Production</td>
</tr>
<tr>
<td>PETE 335 Technical Presentations I</td>
</tr>
<tr>
<td>PETE 353 Petroleum Project Evaluation</td>
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<tr>
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<tr>
<td>Spring</td>
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<tr>
<td>PETE 321 Formation Evaluation</td>
</tr>
<tr>
<td>PETE 323 Fundamentals of Reservoir Engineering</td>
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<tr>
<td>PETE 324 Well Testing</td>
</tr>
<tr>
<td>PETE 325 Petroleum Production Systems</td>
</tr>
<tr>
<td>PETE 355 Drilling Engineering</td>
</tr>
</tbody>
</table>

1 A grade of C or better is required.
2 Entering students will be given a math placement exam. Test results will be used in selecting the appropriate starting course which may be at a higher or lower level.

3 Of the 18 hours shown as University Core Curriculum electives, 3 must be from creative arts (for Industrial Distribution this is 3 hours from language, philosophy and culture, see IDIS curriculum for more information), 3 from social and behavioral sciences, 6 from American history, and 6 from government/political science. The required 6 hours from international and cultural diversity may be met by courses satisfying the creative arts, social and behavioral sciences (for Industrial Distribution this is language, philosophy and culture), and American history requirements if they are also on the approved list of international and cultural diversity courses.

4 BMEN and CHEN require 8 hours of freshman chemistry, which may be satisfied by CHEM 101/CHEM 111 or CHEM 107/CHEM 117 and CHEM 102/CHEM 112; Credit by Examination (CBE) for CHEM 101/CHEM 111 or CHEM 107/CHEM 117 plus CHEM 102/CHEM 112; or 8 hours of CBE for CHEM 101/CHEM 111 or CHEM 107/CHEM 117 and CHEM 102/CHEM 112.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>PETE 337</td>
<td>Junior Student Paper Contest</td>
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</tr>
<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
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<tr>
<td><strong>Fourth Year</strong></td>
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<tr>
<td><strong>Fall</strong></td>
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<tr>
<td>PETE 300</td>
<td>Summer Practice</td>
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</tr>
<tr>
<td>PETE 401</td>
<td>Reservoir Simulation</td>
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<tr>
<td>PETE 404</td>
<td>Integrated Reservoir Modeling</td>
<td>3</td>
</tr>
<tr>
<td>PETE 410</td>
<td>Production Engineering</td>
<td>3</td>
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<tr>
<td>PETE 435</td>
<td>Technical Presentations II</td>
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<tr>
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<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
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<tr>
<td><strong>Spring</strong></td>
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</tr>
<tr>
<td>ENGR 482/PHIL 482</td>
<td>Ethics and Engineering</td>
<td>3</td>
</tr>
<tr>
<td>PETE 402</td>
<td>Integrated Asset Development</td>
<td>3</td>
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<tr>
<td>PETE 437</td>
<td>Senior Student Paper Contest</td>
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<tr>
<td>Technical elective</td>
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<td>University Core Curriculum (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum</a>)</td>
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<tr>
<td></td>
<td><strong>Semester Credit Hours</strong></td>
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</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong></td>
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</table>

5 See the Department of Petroleum Engineering (http://engineering.tamu.edu/petroleum) website for a list of approved courses.

**Total Program Hours 128**