# CHEMICAL ENGINEERING, MINOR

## Minor Requirements (18 Hours)

The Chemical Engineering minor requires:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>Required Courses (12 hours):</strong></td>
<td></td>
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<tr>
<td>ECHE 300</td>
<td>Chemical Process Principles</td>
<td>3</td>
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<tr>
<td>ECHE 311</td>
<td>Chemical Engineering Thermodynamics</td>
<td>3</td>
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<tr>
<td>ECHE 320</td>
<td>Chemical Engineering Fluid Mechanics or ENCP 360</td>
<td>3</td>
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<tr>
<td>or ENCP 360</td>
<td>Fluid Mechanics</td>
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<tr>
<td>ECHE 440</td>
<td>Separation Process Design</td>
<td>3</td>
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<tr>
<td><strong>Chemical Engineering Minor Electives (6 hours): 6 additional hours selected from:</strong></td>
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<tr>
<td>Minor Electives that do not require MATH 242</td>
<td></td>
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<tr>
<td>ECHE 372</td>
<td>Introduction to Materials</td>
<td></td>
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<tr>
<td>ECHE 389</td>
<td>Special Topics in Chemical Engineering</td>
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<tr>
<td>ECHE 521</td>
<td>Computational Fluid Dynamics for Engineering Applications</td>
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<tr>
<td>ECHE 571</td>
<td>Corrosion Engineering</td>
<td></td>
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<tr>
<td>ECHE 572</td>
<td>Polymer Processing</td>
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<tr>
<td>ECHE 573</td>
<td>Next Energy</td>
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<tr>
<td>ECHE 575</td>
<td>Engineering of Soft Materials</td>
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<tr>
<td>ECHE 589</td>
<td>Special Advanced Topics in Chemical Engineering</td>
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<tr>
<td>Minor Electives that require MATH 242 as pre-requisite</td>
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<tr>
<td>ECHE 321</td>
<td>Heat-Flow Analysis ¹</td>
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<tr>
<td>ECHE 430</td>
<td>Chemical Engineering Kinetics ²</td>
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<tr>
<td>ECHE 456</td>
<td>Computational Methods for Engineering Applications ³</td>
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<tr>
<td>ECHE 550</td>
<td>Chemical-Process Dynamics and Control ⁴</td>
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</table>

**Total Credit Hours** 18

1 Requires MATH 242 as a pre-requisite, and ECHE 456 as a pre-requisite or co-requisite
2 Requires ECHE 321 as a pre-requisite or co-requisite, or BMEN 354 as a pre-requisite.
3 Requires MATH 242 as a pre-requisite or co-requisite
4 Requires both MATH 242 and ECHE 456 as pre-requisites