BS/MS in Chemical Engineering

Five-year Academic Plan (155 cr; special rules apply; see advisor)

Freshman Year – BS

Fall Semester

<table>
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<tr>
<th>Course</th>
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<td>CH 1150</td>
<td>University Chemistry I</td>
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<tr>
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<td>CH 1153</td>
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<td>ENG 1101</td>
<td>Eng Analysis and Problem Solv</td>
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<td>MA 1160</td>
<td>Calculus with Technology I</td>
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<td>PH 1100</td>
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<td>UN 1001</td>
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Co-Curricular (1 unit)* Total 16

Spring Semester

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Total 18

Sophomore Year – BS

Fall Semester

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<td>Organic Chemistry I</td>
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<td>CH 2411</td>
<td>Organic Chemistry Lab I</td>
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<td>CM 2110</td>
<td>Fundamentals of ChE I</td>
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Co-Curricular (1 unit)* Total 15

Spring Semester

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<td>MA 2321</td>
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Co-Curricular (1 unit)* Total 16

Junior Year – BS

Fall Semester

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<td>CH 3510</td>
<td>Physical Chemistry I</td>
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<td>CH 3511</td>
<td>Physical Chemistry Lab I</td>
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<td>CM 3110</td>
<td>Transport/Unit Operations I</td>
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<td>CM 3215</td>
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Total 16

Spring Semester

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<th>Cr</th>
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<tr>
<td>CM 3120</td>
<td>Transport/Unit Operations II</td>
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<tr>
<td>CM 3230</td>
<td>Thermodynamics for ChE</td>
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<td>CM 3310</td>
<td>Process Control</td>
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<td>CM 3510</td>
<td>Chemical Reaction Eng</td>
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Total 16

Senior Year – BS plus 6 credits towards MS

Fall Semester

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<td>Unit Operations Lab</td>
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<tr>
<td>CM 4310</td>
<td>Process Safety/Environment</td>
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<tr>
<td>CM 4855</td>
<td>ChE Proc Anal &amp; Design I</td>
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<td>Free Elective*</td>
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Total 18

Spring Semester

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<tr>
<td>CM 4120</td>
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<td>CM 4860</td>
<td>ChE Proc Anal &amp; Design II</td>
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<td>CM 4861</td>
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Total 16

Final Year – MS

Fall Semester

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<tr>
<td>CM 5100</td>
<td>Applied Math for Chem Eng</td>
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<td>CM 5200</td>
<td>Advanced Thermodynamics</td>
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<td>CM 5310</td>
<td>Laboratory Safety</td>
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<td>CM 5500</td>
<td>Theory/Methods of Research</td>
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<td>Masters Technical Elective*</td>
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Total 12

Spring Semester

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<tbody>
<tr>
<td>CM 5400</td>
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<td>CM 4860</td>
<td>Advanced Reactive Sys Anal</td>
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Total 12

*See separate handouts for description.

**Two semesters of a single modern language (6 cr) in addition to UN1003 (1 cr) can substitute for UN1002 and 3 credits of gen ed distribution course requirements.

Updated 23-Mar-12

*Masters Technical Electives must be approved by the Graduate Program Director/Advisor