### English - 6 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH 101</td>
<td>3</td>
<td>College Writing I</td>
<td>Placement</td>
</tr>
<tr>
<td>EH 102</td>
<td>3</td>
<td>College Writing II</td>
<td>EH 101</td>
</tr>
</tbody>
</table>

### Mathematics - 15 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 171</td>
<td>4</td>
<td>Calculus A</td>
<td>MA 113 or Level III Placement</td>
</tr>
<tr>
<td>MA 172</td>
<td>4</td>
<td>Calculus B</td>
<td>MA 171</td>
</tr>
<tr>
<td>MA 201</td>
<td>4</td>
<td>Calculus C</td>
<td>MA 172</td>
</tr>
<tr>
<td>MA 238</td>
<td>3</td>
<td>Applied Differential Equations</td>
<td>Prereq w/Con: MA 201</td>
</tr>
</tbody>
</table>

### Chemistry - 18 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 121</td>
<td>3</td>
<td>General Chemistry I</td>
<td>Phcit or Prereq w/Con: MA 113</td>
</tr>
<tr>
<td>CH 125</td>
<td>1</td>
<td>General Chemistry Lab I</td>
<td>Prereq w/Con: CH 121</td>
</tr>
<tr>
<td>CH 123</td>
<td>3</td>
<td>General Chemistry II</td>
<td>CH 121, Prereq w/Con: CH 126</td>
</tr>
<tr>
<td>CH 126</td>
<td>1</td>
<td>General Chemistry Lab II</td>
<td>CH 125, Prereq w/Con: CH 123</td>
</tr>
<tr>
<td>CH 331</td>
<td>3</td>
<td>Organic Chemistry I</td>
<td>CH 123</td>
</tr>
<tr>
<td>CH 335</td>
<td>1</td>
<td>Organic Chemistry Lab I</td>
<td>CH 128, Prereq w/Con: CH 331</td>
</tr>
<tr>
<td>CH 332</td>
<td>3</td>
<td>Organic Chemistry II</td>
<td>CH 331</td>
</tr>
<tr>
<td>CH 341</td>
<td>3</td>
<td>Physical Chemistry I</td>
<td>CH 123, MA 201, PH 112, PH 115</td>
</tr>
</tbody>
</table>

### Physics - 8 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH 111</td>
<td>3</td>
<td>General Physics w/Calculus I</td>
<td>MA 171, Coreq: 114</td>
</tr>
<tr>
<td>PH 114</td>
<td>1</td>
<td>General Physics Lab I</td>
<td>Prereq w/Con: PH 111</td>
</tr>
<tr>
<td>PH 112</td>
<td>3</td>
<td>General Physics w/Calculus II</td>
<td>MA 172, PH 111, PH 114, Coreq: 115</td>
</tr>
<tr>
<td>PH 115</td>
<td>1</td>
<td>General Physics Lab II</td>
<td>Coreq: PH 112</td>
</tr>
</tbody>
</table>

### Biology - 3 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>BYS 311</td>
<td>3</td>
<td>Intro to Molecular Biological Systems</td>
<td>CH 331</td>
</tr>
</tbody>
</table>

### History, Social & Behavioral Sciences, Humanities & Fine Arts - 18 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 History</td>
<td></td>
<td>HY 103, HY 104, HY 221, or HY 222</td>
<td>FSM</td>
</tr>
<tr>
<td>3 Literature</td>
<td></td>
<td>EH 207 or EH 206</td>
<td>F</td>
</tr>
<tr>
<td>3 Fine Art</td>
<td></td>
<td>ARH 100, ARH 101, ARH 103, TH 122, MU 100, or ARS 160</td>
<td>F</td>
</tr>
<tr>
<td>3 Social &amp; Behavioral Science</td>
<td></td>
<td>For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms">http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms</a></td>
<td>F</td>
</tr>
<tr>
<td>3 HSBS/HFA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### First-Year Engineering - 4 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>FYE 101</td>
<td>1</td>
<td>First-Year Experience for Engineers</td>
<td>None</td>
</tr>
<tr>
<td>ENG 101</td>
<td>3</td>
<td>Computing for Engineers</td>
<td>Prereq w/Con: MA 171</td>
</tr>
</tbody>
</table>

### Chemical Engineering - 49 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 201</td>
<td>2</td>
<td>Intro to Chemical Engineering Processes</td>
<td>ENG 101, Prereq w/Con: CH 123</td>
</tr>
<tr>
<td>EE 213</td>
<td>3</td>
<td>Electrical Circuit Analysis I</td>
<td>Prereq w/Con: PH 112, MA 201</td>
</tr>
<tr>
<td>CHE 244</td>
<td>3</td>
<td>Intro to Chemical Engineering Systems</td>
<td>PH 111, CH 123, CHE 201, MA 201</td>
</tr>
<tr>
<td>MAE 271</td>
<td>3</td>
<td>Statics</td>
<td>ENG 101, PH 111, Prereq w/Con: MA 201</td>
</tr>
<tr>
<td>CHE 294</td>
<td>3</td>
<td>Nature &amp; Properties of Materials</td>
<td>CH 121, PH 111</td>
</tr>
<tr>
<td>CHE 295</td>
<td>1</td>
<td>Nature &amp; Properties of Materials Lab</td>
<td>Coreq: CHE 294</td>
</tr>
<tr>
<td>CHE 342</td>
<td>3</td>
<td>Transport Phenomena</td>
<td>CHE 341, CHE 244, Prereq w/Con: MAE 310</td>
</tr>
<tr>
<td>CHE 344</td>
<td>3</td>
<td>Chemical Engineering Thermodynamics</td>
<td>CHE 341, CHE 244</td>
</tr>
<tr>
<td>MAE 310</td>
<td>3</td>
<td>Fluid Mechanics I</td>
<td>MA 228, MAE/CE 271</td>
</tr>
<tr>
<td>CHE 347</td>
<td>3</td>
<td>Quantitative Modeling for Chemical Engrs</td>
<td>CHE 264, MA 238</td>
</tr>
<tr>
<td>CHE 439</td>
<td>2</td>
<td>Unit Operations Lab I</td>
<td>CHE 280, Prereq w/Con: CHE 441, CHE 446</td>
</tr>
<tr>
<td>CHE 440</td>
<td>2</td>
<td>Unit Operations Lab II</td>
<td>CHE 439, CHE 441, CHE 443</td>
</tr>
<tr>
<td>CHE 441</td>
<td>3</td>
<td>Chemical Kinetics &amp; Reactor Design</td>
<td>CHE 344, CHE 347</td>
</tr>
<tr>
<td>CHE 442</td>
<td>3</td>
<td>Mass Transfer Operations</td>
<td>CHE 342, CHE 344, MAE 310</td>
</tr>
<tr>
<td>CHE 445</td>
<td>3</td>
<td>Chemical Process Control</td>
<td>CHE 441, CHE 446</td>
</tr>
<tr>
<td>CHE 446</td>
<td>3</td>
<td>Analysis &amp; Design of Transport Equipment</td>
<td>CHE 342, Prereq w/Con: CHE 443</td>
</tr>
<tr>
<td>CHE 448</td>
<td>3</td>
<td>Chemical Engineering Design</td>
<td>CHE 441, CHE 443, CHE 446, Prereq w/Con:CHE 445</td>
</tr>
<tr>
<td>CHE 485</td>
<td>3</td>
<td>Process Safety and Toxicology</td>
<td>CHE 441, CHE 443, CHE 446</td>
</tr>
</tbody>
</table>

### Chemical Engineering Electives - 9 hours

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 361</td>
<td>3</td>
<td>General Biochemistry I</td>
<td>BYS 311, CH 332, CH 335</td>
</tr>
<tr>
<td>CHE 460</td>
<td>3</td>
<td>Introduction to Bioprocess Engineering</td>
<td>CH 381</td>
</tr>
<tr>
<td>CHE 461</td>
<td>3</td>
<td>Bioseparations</td>
<td>CHE 460</td>
</tr>
<tr>
<td>CH 494</td>
<td>3</td>
<td>Applied Materials Engineering</td>
<td>CHE 294, CHE 344</td>
</tr>
<tr>
<td>CHE 495</td>
<td>3</td>
<td>Polymer Engineering</td>
<td>CHE 341, CHE 440</td>
</tr>
</tbody>
</table>

All prerequisite classes must be completed with a "C-" or higher grade. The Catalog is the final authority for all degree requirements.
### Chemical Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Fall 2017</th>
<th>Spring 2018</th>
<th>Fall 2018</th>
<th>Spring 2019</th>
<th>Fall 2019</th>
<th>Spring 2020</th>
<th>Fall 2020</th>
<th>Spring 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 201</td>
<td>Intro to Chem Eng Pro</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 244</td>
<td>Intro to CHE Systems</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 294</td>
<td>Nature/Prop of Materials</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CHE 295</td>
<td>Nature/Prop of Matrls Lab</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CHE 342</td>
<td>Transport Phenomena</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 344</td>
<td>Chem Eng Thermo</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 347</td>
<td>Quantitative Modeling</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CHE 439</td>
<td>Unit Operations I</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CHE 440</td>
<td>Unit Operations II</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 441</td>
<td>Chem Kinetics/Reactor Des</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CHE 443</td>
<td>Mass Transfer Operations</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Term 1</td>
<td>Term 2</td>
<td>Term 3</td>
<td>Term 4</td>
<td>Term 5</td>
<td>Term 6</td>
<td>Term 7</td>
<td>Term 8</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>CHE 445</td>
<td>Chemical Process Control</td>
<td>N</td>
<td>Y</td>
<td>1</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CHE 446</td>
<td>Analy/Des of Trans Equip</td>
<td>Y</td>
<td>1</td>
<td>N</td>
<td>0</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CHE 448</td>
<td>Chemical Eng Design</td>
<td>N</td>
<td>0</td>
<td>Y</td>
<td>1</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 460</td>
<td>Intro to Bioprocess Eng</td>
<td>Y</td>
<td>1</td>
<td>N</td>
<td>0</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CHE 461</td>
<td>Bioseparations</td>
<td>N</td>
<td>0</td>
<td>Y</td>
<td>1</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 485</td>
<td>Process Safety/Toxicology</td>
<td>N</td>
<td>0</td>
<td>Y</td>
<td>1</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 494</td>
<td>Applied Materials Engineering</td>
<td>N</td>
<td>0</td>
<td>Y</td>
<td>1</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CHE 495</td>
<td>Polymer Engineering</td>
<td>Y</td>
<td>1</td>
<td>N</td>
<td>0</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

**Legend**

- **Y**: Course will be offered in designated term.
- **E**: Course is expected to be offered in designated term, but availability will be determined by faculty availability and budget.
- **N**: Course will not be offered in designated term.
- **D**: Course may be made available given appropriate demand or interest.

*UAH College of Engineering will make every effort to adhere to the class plan schedule, but it reserves the right to make necessary adjustments based on budget and faculty availability.*