UTRACK Milestones:

<table>
<thead>
<tr>
<th>Term</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Math 130 or higher or one SS or one AH or one CC</td>
</tr>
<tr>
<td>2</td>
<td>Math 130 or higher</td>
</tr>
<tr>
<td>3</td>
<td>EF 151 or 157 or Physics 135/137</td>
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<tr>
<td>4</td>
<td>EF 150/158 or Physics 136/138</td>
</tr>
<tr>
<td>5</td>
<td>ME 202 or CS 102 or MSE 201 or CBE 201</td>
</tr>
<tr>
<td>6</td>
<td>No Milestones</td>
</tr>
</tbody>
</table>

Chemical and Biomolecular Engineering Catalog 2017

**Biomolecular Concentration**

**Fall 16 hours**
- Math 141 or 147 (4) FA, SP, SU
  - Prereq: Math 130 or Math ACT 28 or Math SAT 630
- Chem 120 or 128 (4) FA, SP, SU
  - Math 130
- English 101 or 118 (5) FA, SP, SU
- EF 151 or 157 (4) FA, SP
  - Coreq: Math 141 or 147 and EF 105
- EF 105 (1) FA, SP
  - Coreq: EF 151 or 157

**Spring 15 hours**
- Math 142 or 148 (4) FA, SP, SU
  - Prereq: Math 141 and 147
- Chem 130 or 138 (4) FA, SP, SU
  - Prereq: Chem 120 or 128
- English 102 (5) FA, SP, SU
  - Prereq: English 101 or 118
- EF 152 or 158 (4) FA, SP
  - Prereq: EF 151 or 157

**Fall 15 hours**
- Math 231 or 237 (3) FA, SP, SU
  - Prereq: Math 142 and 148
- CBE 201 (4) FA, SU
  - Prereq: EF 152/158 & Chem 130/138
- CBE 235 (3) FA
  - Prereq: EF 152/158 & Chem 130/138
- Biology 160 or 168 (3) FA, SP, SU
  - Coreq: Chem 241 or 247

**Spring 15 hours**
- Math 241 or 247 (4) FA, SP, SU
  - Prereq: Math 142 and 148
- CBE 250 (4) SP, SU
  - Prereq: EF 152/158 & Chem 130/138
- CBE 240 (4) SP
  - Coreq: Math 241 or 247
- Gen Ed (3) FA, SP, SU

**Fall 15 hours**
- Chemistry 260 or 268 (3) FA, SP, SU
  - Formerly Chem 350 or 358
- Prereq: Chemistry 130 or 138
- CBE 301 (3) FA
  - Coreq: EF 230
- CBE 350 (3) FA
  - Prereq: CBE 201, 240 and 250

**Spring 19 hours**
- CBE 340 (3) FA, SP, SU
  - Prereq: CBE 201, 240 and 368
- CBE 340 (3) SP, SU
  - Prereq: CBE 201, 240 and 250
- CBE 380 (1) SP
  - Grading: Satisfactory/ No Credit
  - Coreq: EF 230
- CBE 401 (3) FA, SP, SU
  - Gen. Ed. (3) FA, SP, SU
- Physics 231 (3) FA, SP, SU
  - Coreq: Math 142 and 148
- Gen. Ed. (3) FA, SP, SU
  - Arts and Humanities

**Fall 17 hours**
- CBE 445 (3) FA
  - Prereq: CBE 340 and 360
- CBE 415 (WQ) (6) FA
  - Prereq: CBE 340 and 360
- CBE 450 (3) FA
  - Prereq: CBE 340 and 360 and Chemistry 350 or 358
- CBE 445 (3) SP
  - Coreq: CBE 360 or 368

**Spring 16 hours**
- CBE 401 (1) SP
  - Prereq: CBE 350, 445, 480
  - Coreq: CBE 488 or 490
- CBE 488 or 490 (3) SP (DC)
  - Bio Option 1 (3-5) FA, SP, SU
- *Bio Option 1 (3-5) FA, SP, SU
- CBE 475 (3) SP
  - Gen. Ed. (3) FA, SP, SU
  - Social Science
- Gen. Ed. (3) FA, SP, SU
  - Cultures and Civilizations


Progression to Upper Division

Progression of students in the Department of Chemical and Biomolecular Engineering to departmental courses numbered 310 and above is competitive and is based on capacity. Factors considered include overall grade point average, performance in selected lower-division courses, and evidence of satisfactory and orderly progress through the prescribed curriculum.

Upper-Division Status

A lower-division student must apply for progression to upper division status after completing CBE 201, CBE 235, CBE 240, and CBE 250 with a grade of C- or better in each course and an overall GPA of 2.3 or better.

Grades of C- or better in these four courses are required for graduation.

Provisional Status

Students who have completed CBE 201, CBE 235, CBE 240, and CBE 250 with an overall GPA of at least 2.3 may apply for provisional status. Any student granted provisional status must retake the 200 level CBE course or courses in which a grade less than C- was earned and achieve a C- or better to be admitted to full upper-division status. Grades of C- or better in these four courses are required for graduation. The granting of provisional upper-division status is based on availability of space in the departmental programs after upper-division status students have been accommodated. Provisional students are required to demonstrate the ability to perform satisfactorily in upper-division courses by completing a total of seven departmental courses with a grade of C or better in each course (including the four required for upper-division status). Permission to continue with upper-division classes depends on this minimum level of performance.

Any student with an overall GPA below 2.1 will not be admitted to upper-division chemical and biomolecular engineering courses. Students who have not been admitted to upper-division or provisional status will be dropped from upper-division departmental classes.

Students also have opportunities for an Honors Concentration. See the Undergraduate Catalog for details and requirements.