### Chemical and Biomolecular Engineering Catalog 2016
#### 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 123 (4) FA, SP, SU
  - Math 130
  - English 101 or 118 (3) FA, SP, SU
  - EF 151 or 157 (4) FA, SP
  - Prereq: Math 141 or 147 and EF 106
  - EF 105 (1) FA, SP
  - Prereq: EF 151 or 157

**Spring**
- **15 hours**
  - Math 142 or 148 (4) FA, SP, SU
  - Prereq: Math 141 or 147
  - Chem 130 or 133 (4) FA, SP, SU
  - Prereq: Chem 120 or 128
  - English 102 (3) 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 (3) FA, SP, SU
  - Prereq: Math 142 or 148
  - CBE 201 (4) FA
  - Prereq: EF 152/158 & Chem 130/138
  - Coreq: Math 231
  - CBE 235 (3) FA
  - Prereq: EF 152/158 & Chem 130/138
  - Coreq: Biology 160 or 168
  - Biology 160 or 168 (3) FA, SP, SU
  - Prereq: Chemistry 120 or 128
  - EF 230 (2) FA, SP
  - Prereq: EF 152 or 158 or Physics 136 or 138

**Spring**
- **15 hours**
  - Math 241 or 247 (4) FA, SP, SU
  - Prereq: Math 142 or 148
  - CBE 260 (4) SP, SU
  - Prereq: EF 152/158 & Chem 130/138
  - Coreq: Math 241 or 247
  - CBE 290 (4) SP, SU
  - Prereq: EF 152/158 & Chem 130/138
  - Coreq: Math 241 or 247
  - Gen Ed (3) FA, SP, SU
  - Social Science

**Fall**
- **15 hours**
  - Chemistry 350 or 358 (3) FA, SP, SU
  - Prereq: Chemistry 130 or 138
  - CBE 301 (3) FA
  - Coreq: EF 230
  - CBE 350 (3) FA
  - Prereq: CBE 201, 240 and 250
  - Physics 231 (3) FA, SP, SU
  - Prereq: Math 142 or 148
  - Gen. Ed. (3) FA, SP, SU
  - Arts and Humanities
  - Biology 240 (4) FA, SU
  - Prereq: Biol 180 or 188 and Coreq: Chemistry 130 or 138
  - Chem 360 or 368 (3) FA, SP, SU
  - Prereq: Chem 350 or 358
  - Chem 360 (3) FA, SP, SU
  - Prereq: Chem 360 or 368

**Spring**
- **19 hours**
  - Math 248 or 249 (1) SP
  - Prereq: CBE 350, 445, 480
  - Coreq: CBE 488 or 490
  - EF 105 (1) SP
  - Prereq: EF 151 or 157
  - BCMB 401 (4) FA, SP
  - Prereq: Chem 350 and 368
  - Coreq: Bio 240
  - CBE 475 (3) SP
  - Gen. Ed. (3) FA, SP, SU
  - Social Science
  - Gen. Ed. (3) FA, SP, SU
  - Cultures and Civilizations

*Biological Option I: Choose one BCME 230, 311, 321, 401, 412, Biology 220/229, Biology 265/269, CBE 455; Microbiology 210.

### 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 take 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.

### UTRACK Milestones:

<table>
<thead>
<tr>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
<th>Term 4</th>
<th>Term 5</th>
<th>Term 6 through 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 130 or higher or one SS or one AH or one CC</td>
<td>Math 130 or higher</td>
<td>EF 151/157 or Physics 135/137</td>
<td>EF 152/158 or Physics 136/138</td>
<td>MIE 212 or CS 102 or MSE 201 or CBE 201</td>
<td>No Milestones</td>
</tr>
</tbody>
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