### Chemical and Biomolecular Engineering Catalog 2011

#### Fall 16 hours
- **Math 141 or 147 (4) FA, SP, SU**
  - Prereq: Math 130 or Math ACT 28 or Math SAT 680
- **Chem 120 or 128 (4) FA, SP, SU**
  - Prereq: Math 130
- **English 101 or 118 (3) FA, SP, SU**
  - Prereq: Math 130 or Math ACT 28 or Math SAT 680
- **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 138 (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
  - Coreq: Math 142 or 148

#### Fall 18 hours
- **Math 241 or 247 (4) FA, SP, SU**
  - Prereq: Math 142 or 148
- **CBE 201 (4) FA, SU**
  - Prereq: EF 151/157
- **CBE 250 (4) FA, SU**
  - Prereq: Chemistry 120 or 128
- **Biology 140 or 148 (4) FA, SP, SU**
  - Prereq: Chemistry 120 or 128
- **EF 230 (2) FA, SP**
  - Prereq: EF 152 or 158

#### Spring 15 hours
- **Math 231 (3) FA, SP, SU**
  - Prereq: Math 142 or 148
- **CBE 235 (3) SP**
  - Prereq: Biology 140 or 148
- **CBE 240 (4) SP**
  - Prereq: CBE 201
  - Coreq: Math 231
- **Gen Ed (3) FA, SP, SU**
  - Prereq: EF 230
  - Coreq: Math 130 or 138

#### Fall 18 hours
- **Chemistry 350 or 358 (3) FA, SP, SU**
  - Prereq: Chemistry 130 or 138
- **CBE 301 (3) FA**
  - Prereq: EF 230
  - Coreq: Math 231
- **CBE 310 (WC) (3) FA**
  - Prereq: EF 230 and Math 143 or 148
  - Restrictions: CBE major; 2.3 GPA
- **Physics 231 (3) FA, SP, SU**
  - Prereq: Math 142 or 148
  - Coreq: Math 231

#### Spring 15 hours
- **CBE 340 (3) SP, SU**
  - Prereq: CBE 201 and 250
  - Restrictions: 2.3 GPA
- **CBE 350 (2) SP, SU**
  - Prereq: CBE 201 and 240
  - Coreq: Math 231
  - Restrictions: 2.3 GPA
- **CBE 380 (1) SP**
  - Grading: Satisfactory/No Credit
  - Bio Opt 1 (3) FA, SP, SU
  - Tech, Elective (3) FA, SP, SU
  - Gen Ed (3) FA, SP, SU

#### Fall 15 hours
- **CBE 445 (3) FA**
  - Prereq: CBE 340
- **CBE 450 (3) FA**
  - Prereq: CBE 240, 301 and 340
- **CBE 460 (3) FA**
  - Prereq: CBE 360 and Chem 350 or 358
  - Coreq: CBE 445 and 450
- **Gen Ed (3) FA, SP, SU**
  - CBE 240, 301 and 340

#### Spring 16 hours
- **CBE 451 (3) SP**
  - Grading: letter grade only
  - Prereq: CBE 450
- **CBE 480/481 (3) SP**
  - Prereq: CBE 480
- **Chem Opt 1 (2) FA, SP, SU**
  - Prereq: CBE 201
- **Tech, Elective**** (3) FA, SP, SU**
  - Petition required in advance
  - Gen Ed (3) FA, SP, SU
  - Social Science

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* Chem Option I: Any 200-level or above BCMB courses; any 200-level or above CHEM courses; Environmental Engineering 554, 562; MSE 340, MSE 360; any 200-level or above MIRC courses.
** Bio Option I: BCMB 230, BCMB 310, BCMB 401, BCMB 402, BIOC 240, BIOC 250, MIRC 210, MIRC 310
**** One technical elective must be a chemical and biomolecular engineering course.

### 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.

### 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. 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 the 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.