

## Chemical and Biomolecular Engineering Catalog 2014

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 (3) 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	
	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 16 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 Coreq- Chemistry 120 or 128	EF 230 (2) FA, SP Prereq- EF 152 or 158	Math 200 (1) FA, SP Prereq- Math 142 or 148
	Chem 310 (3) & 319 (1) FA, SP Prereq- Chem 130 or 138	Math 241 or 247 (4) FA, SP, SU Prereq- Math 142 or 148	CBE 250 (4) SP, SU Prereq- EF 152/158 & Chem 130/138 Coreq- Math 241 or 247	CBE 240 (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 Prereq- EF 230 Coreq- Math 231	CBE 350 (3) FA Prereq- CBE 201, 240 and 250	Physics 231 (3) FA, SP, SU Coreq- Math 142 or 148	Gen Ed (3) FA, SP, SU Arts and Humanities	
	CBE 340 (3) FA, SP, SU Prereq- CBE 201, 240 and 250 Restrictions: 2.3 GPA	CBE 360 (3) SP, SU Prereq- CBE 201, 240 and 250 Coreq- Math 231 Restrictions: 2.3 GPA	CBE 380 (1) SP Grading: Satisfactory/ No Credit Prereq- CBE 201, 240 and 250	Bio Option I <sup>**</sup> (3) FA, SP, SU	Tech. Elective (3) FA, SP, SU Petition required in advance See note below <sup>***</sup>	Gen Ed (3) FA, SP, SU Arts and Humanities
Fall 16 hours	CBE 445 (3) FA Prereq- CBE 340, 350 and 360	CBE 415 (WC) (4) FA Prereq- CBE 301, 340, 350, 360 Restriction Chem E and 2.3 GPA	CBE 480 (3) FA Prereq- CBE 340, 350, 360 and Chem 350 or 358 Coreq- CBE 445	Gen Ed (3) FA, SP, SU Cultures and Civilizations	Gen Ed (3) FA, SP, SU Cultures and Civilizations	
	CBE 401 (1) SP Prereq- CBE 350, 445, 480 Coreq- CBE 488 or 490	CBE 488 or 490 (3) SP (OC) Prereq- CBE 445 and 480	Chem Option I <sup>*</sup> (3) FA, SP, SU	Tech. Elective <sup>***</sup> (2) FA, SP, SU Petition required in advance	Tech. Elective <sup>***</sup> (3) FA, SP, SU Petition required in advance	Gen. Ed. (3) FA, SP, SU Social Science

\* **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 MICR courses.

\*\* **Biology Option I:** BCMB 230, BCMB 310, BCMB 321, BCMB 401, BCMB 402; BCMB 412; BIOL 220/229, BIOL 240, BIOL 260/269; MICR 210, CBE 455

\*\*\* One technical elective must be a chemical and biomolecular engineering course, with the exclusion of CBE 457.

### 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 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:

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6 through 8
Math 130 or higher or one SS or one AH or one CC	Math 130 or higher	EF 151/157 or Physics 135/137	EF 152/158 or Physics 136/138	ME 202 or CS 102 or MSE 201 or CBE 201	No Milestones