Chemical and Biomolecular Engineering Catalog 2019

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** Prereq-Math 119; recommended background Math 130	**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	**English 101/118 or 198 or 131 (3) FA, SP, SU** 101 Regular; 118 Honors; 198 Chancellor Honors Only; 131 English as Second Language		
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	**EF 152 or 158 (4) FA, SP, SU** Prereq- EF 151 or 157	**English 102 or 290 or 298 or 132 (3) FA, SP, SU** 102 Prereq 101 or 118; 290 Prereq AP 101 credit 298 Prereq Chancellor Honors only & 198; 132 Prereq 131 ESL			
Fall 16 hours	**Math 231 or 237 (3) FA, SP, SU** Prereq- Math 142 or 148	**CBE 201 (4) FA, SU** Prereq- EF 152/158 & Chem 130/138 Coreq- Math 231	**CBE 235 (3) FA** Prereq- EF 152/158 & Chem 130/138 (Dept. Enforced)Co-req Bio 160 or 168	**Biology 160 or 168 (3) FA, SP, SU** Coreq- Chemistry 120 or 128	**Gen Ed (3) FA, SP, SU** Social Science		
Spring 18 hours	**Math 241 or 247 (4) FA, SP, SU** Prereq- Math 142 or 148	**CBE 240 (4) SP** Prereq- EF 152/158 & Chem 130/138 Coreq- Math 241 or 247	**CBE 250 (4) SP, SU** Prereq- EF 152/158 & Chem 130/138 Coreq- Math 241 or 247	**Physics 231 (3) FA, SP, SU** Prereq- Phys 135 or EF 151 and 152 Coreq- Math 142 or 148	**Gen. Ed. (3) FA, SP, SU** Social Science		
Fall 14 hours	**Chemistry 260 or 268 (3) FA, SP, SU** formerly Chem 350 or 358 Prereq- Chemistry 130 or 138	**CBE 301 (4) FA** Prereq- CBE 201, 240, and 250 or consent of instructor	**CBE 350 (4) FA** Prereq- CBE 201, 240 and 250	**Gen. Ed. (3) FA, SP, SU** Arts and Humanities			
Spring 19 hours	**CBE 320 (3) SP** Prereq- CBE 201, 240, and 250 Coreq- CBE 301 and 350	**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	**Biology 240 (4) FA, SP, SU** Prereq- BIOL 160 or 168 and Coreq-Chemistry 130 or 138	**Chem 360 or 368 (3) FA, SP, SU** Prereq- Chem 260 or 268 formerly 350 or 358	**Chem 369 (2) FA, SP, SU** Coreq- Chem 360 or 368
Fall 16 hours	**CBE 445 (3) FA** Prereq- CBE 340 and 360	**CBE 480 (3) FA** Prereq- CBE 340 and 360 and Chemistry 260 or 268 Coreq- CBE 445	**BCMB 401 or 412 (4) FA, SP** 401 Prereq- Chem 260 or 268; 401 Coreq- Chem 360 or 368 412 Prereq- Bio 240	**Gen. Ed. (3) FA, SP, SU** Cultures and Civilizations	**CBE 415 (WC) (3) FA** Prereq- CBE 320 and 340; English 102, 132, 290, or 298 Coreq- CBE 301 and 350 Restriction- CBE and 2.3 GPA		
Spring 14 hours	**CBE 401 (2) SP** Prereq- CBE 350, 445, 480 Coreq- CBE 488 or 490	**CBE 488 or 490 (3) SP (OC)** Prereq- CBE 445 and 480	**CBE 475 (3) SP**	**Gen. Ed. (3) FA, SP, SU** Cultures and Civilizations	**Gen. Ed. (3) FA, SP, SU** Arts and Humanities		

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.