

Chemical and Biomolecular Engineering Catalog 2025

Biomolecular Concentration

Fall 16 hours	Math 132 or 141 or 147 (3-4) (QR) FA,SP,SU Math 132 Prereq- Math 131 Math 141 Prereq- ACT Math 28 or SAT Math 660	Chem 122(3) and 123(1) or 128(4) (NS) FA, SP, SU Prereq- Math 119; recommended background in Math 131	EF 142 or 151 or 157(4) (E) FA, SP EF 142 Prereq- EF 141 with C- or better and Math 131 EF 142 Coreq- Math 132 EF 151 Coreq- 141/147 or higher and EECS majors COSC 101/102	EF 105(1) FA, SP Coreq- EF 152 or 158	English 101 or 131(3) FA, SP, SU 101 Standard; 131 English as Second Language	
Spring 15 hours	Math 142 or 148(4) (QR) FA, SP, SU Prereq- Math 132 or 141 or 147	Chem 122(3) and 133(1) or 138(4) (NS) FA, SP, SU Prereq- Chem 122 and 123 or 128	EF 152 or 158(4) (NS and E) FA, SP, SU Prereq- EF 142/151/157 with C or higher Coreq- Math 142 or 148 and EF 105 or COSC 101 or 102	English 102 or 112 or 298 or 132(3) FA, SP, SU 102 Prereq 101; 112 Prereq is AP 101 and Test Scores; 298 Prereq University Honors only; 132 Prereq 131 ESL		
Fall 17 hours	Math 231 or 237(3) FA, SP, SU Prereq- Math 142 or 148	CBE 201(4) FA, SU Prereq- EF 152/158 & Chem 132 and 133 or 138 Coreq- Math 231	CBE 235(3) FA Prereq- EF 152 or 158 and Chem 132 and 133 or 138	Chemistry 260 or 268(3) FA, SP, SU Prereq- Chemistry 132 and 133 or 138	Chemistry 269(1) FA, SP, SU Prereq- Chemistry 132 and 133 or 138 Coreq- Chemistry 260 or 268	Vol Core(3) FA, SP, SU Social Science (SS)
Spring 16 hours	Math 241 or 247(4) FA, SP, SU Prereq- Math 142 or 148	CBE 240(3) SP Prereq- EF 152/158 & Chem 132 and 133 or 138 Coreq- Math 241 or 247	CBE 250(3) SP, SU Prereq- EF 152/158 & Chem 132 and 133 or 138 Coreq- Math 241 or 247	Chemistry 360 or 368(3) FA, SP, SU Prereq- Chem 260 or 268	Vol Core(3) FA, SP, SU Expanded Perspectives- choose from AH, AAH, GCUS, GCI, or SS	
Fall 16 hours	CBE 301(3) FA Prereq- CBE 201, 240, and 250 with grades of C- or better or consent of instructor	CBE 330(3) FA Prereq- CBE 201, 240, 250 with C- or better; and Math 241 or 247	CBE 340(3) FA Prereq- CBE 201, 240 and 250 with grades of C- or better	Biology 160 or 168(3) FA, SP, SU Strongly recommended students take Chemistry 122 and 123 or 128 prior	BCMB 401(4) FA, SP 401 Prereq- Chem 260 or 268; 401 Coreq- Chem 360 or 368	
Spring 16 hours	CBE 320(3) (OC) SP Prereq- CBE 201, 240, and 250 with grades of C- or better Coreq- CBE 301 and 350	CBE 350(3) SP Prereq- CBE 201, 240 and 250 with grades of C- or better Coreq- CBE 301	CBE 445(3) SP Prereq- CBE 340 and 360	Biology 240(4) FA, SP, SU Prereq- BIOL 160 or 168 and Coreq- Chemistry 132 and 133 or 138	Vol Core(3) FA, SP, SU Arts and Humanities (AH)	
Fall 16 hours	CBE 360(3) FA Prereq- CBE 201, 240 and 250 Coreq- Math 231	CBE 415 (WC and E) (3) FA Prereq- CBE 340 and 360; English 102, 112, 132, or 298 Coreq- CBE 301 and 350 Restriction- CBE majors	CBE 480(4) FA Prereq- CBE 340 and 360 and Chemistry 260 or 268 Coreq- CBE 445	Biomolecular Elective* (3) FA, SP choose from list below	Vol Core(3) FA, SP, SU Global Citizenship United States (GCUS)	
Spring 16 hours	CBE 488 or 490(3) SP (AOC) Prereq- CBE 445 and 480	CBE 475(3) SP	Vol Core(3) FA, SP, SU Global Citizenship International (GCI)	Vol Core(3) FA, SP, SU Expanded Perspectives- choose from AH, AAH, GCUS, GCI, or SS	BIOL Option I** (3) FA,SP,SU choose from list below	Technical Elective*** (1) FA, SP

*Biomolecular Elective: CBE 407, 458, 477; BCMB 415, 419, 422, 433 or MICRO 461.

**BIOL Option: BCMB 230, 311, 321, 402, 415; BIOL 220/229, 260/269, 280; CBE 455; MICRO 210, 321, 329

*** Technical Elective Choices: CHEM 219, 359, 379, 389, 490; BCMB 230, 310, 321, 333, 401, 402, 405, 415, 419, 422, 433, 440, 459, 461; BIOL 211, 220, 229; Math 251/257, 300/307, 323, 341, 371, 405, 411, 421, 424, 431, 435;

MICR 210, 321, 329, 330, 411, 420, 429, 431, 440; NUTR 311; PHYS 250, 311, 342, 405; STAT 251; any Engineering course 200 level or higher except AE 201/BME 201, CE/ENVE 205, ENVE 200, ME 331, 344.

The following courses cannot double count as technical elective or science or chem options: Chem 210, 360/368, 370, 380; BIOL 240; PHYS 231, 232.

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

Volunteer Core courses highlighted in light orange.