

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) (EI) 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 132(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 EI) 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 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 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 Prereq- CBE 201, 240 and 250 with grades of C- or better 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	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 EI) (3) FA Prereq- CBE 340; English 102, 112, 132, or 298 Coreq- CBE 301, 350 and 360 Restriction- CBE majors	CBE 480 (4) FA Prereq- CBE 340 and Chemistry 260 or 268 Coreq- CBE 360 and 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.