

Chemical and Biomolecular Engineering Course Planning Guide (37 CUs)

Entered 2020 or Later

Mathematics/Natural Sciences (12 CU)

- MATH 104
- MATH 114
- MATH 240
- MATH 241
- CHEM 101
- CHEM 053
- CHEM 102
- CHEM 054
- PHYS 140/150/170 *or* MEAM 110*
- PHYS 141/151/171 *or* ESE 112*
- CHEM 221 *or* MSE 221
- CHEM 241
- CHEM 242 *or* 243 *or* 251

Technical Electives (5 CUs)

- CBE Elective** _____
- Engineering Elective _____
- CHEM 223 *or* 244/249 *or* CBE 480
- Math/Nat Sci/Eng Elective*** _____
- Math/Nat Sci/Eng Elective*** _____

CBE Core Curriculum (13 CUs)

- ENGR 105 *Intro to Scientific Computing*
- CBE 160 *Intro to Chemical Engineering*
- CBE 230 *Material and Energy Balances*
- CBE 231 *Thermodynamics of Fluids*
- CBE 350 *Fluid Mechanics*
- CBE 351 *Heat and Mass Transport*
- CBE 353 *Molec. Thermo. & Chem. Kin.*
- CBE 360 *Chemical Process Control*
- CBE 371 *Separation Processes*
- CBE 400 *Intro to Product & Process Design*
- CBE 410 *Chemical Engineering Laboratory*
- CBE 451 *Chemical Reactor Design*
- CBE 459 *Product & Process Design Projects*

General Electives (7 CUs)

- EAS 203
- WRIT _____
- SS/H _____
- SS/H _____
- SS/H _____
- SS/H/TBS _____
- SS/H/TBS _____

UNDERGRADUATE FACULTY ADVISOR SIGN-OFF

Student Name: _____ Faculty Advisor: _____

- I have met with the above student; please clear this student to register for next semester.

Faculty Advisor Signature: _____ Date: _____

*One Math/Nat Sci/Eng Elective waived if PHYS 150/151 or 170/171 taken

**CBE 300 level or above

***Independent Study (CBE 099) can be used

Typical Four-Year Plan

Freshman Year

Fall Semester (4.5 CUs)	Spring Semester (5.5 CUs)
CHEM 101/053 (1.5 CUs)	CHEM 102/054 (1.5 CUs)
MATH 104	MATH 114
PHYS 140	PHYS 141
General Elective*	CBE 160
	WRIT Requirement

Sophomore Year

Fall Semester (4 CUs)	Spring Semester (4 CUs)
CHEM 241	Advanced Chemistry Elective
MATH 240	MATH 241
CBE 230	CBE 231
ENGR 105	General Elective*

Junior Year

Fall Semester (5 CUs)	Spring Semester (5 CUs)
CHEM 221/MSE 221	CBE 351
CBE 350	CBE 353
CBE 360	CBE 371
General Elective*	Technical Elective (Laboratory)
Technical Elective	General Elective*

Senior Year

Fall Semester (5 CUs)	Spring Semester (4 CUs)
CBE 400	CBE 459
CBE 410	Technical Elective
CBE 451	Technical Elective
Technical Elective	General Elective*
General Elective*	

* EAS 203 must be one of the General Elective courses taken