**Chemical and Biomolecular Engineering Course Planning Guide (37 CUs)**

*Entered 2020 or Later*

**Mathematics/Natural Sciences** (11 CU)

MATH 1400  
 MATH 1410  
 MATH 2400  
 MATH 2410  
 CHEM 1012

CHEM 1101  
 CHEM 1022

CHEM 1102  
 PHYS 0140 / 0150 / 0170 ***or*** MEAM 11001  
 PHYS 0141 / 0151 /0171 ***or*** ESE 11201  
 CHEM 2410  
 Advanced chemistry elective:

CHEM 2210 ***or*** 2420

MSE 2210

**Technical Electives** (5 CUs)

CBE Elective2,3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 Engineering Elective3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 Lab elective: CHEM 2230, CBE 4800, **BOTH** CHEM 2411 and 2421, **OR** **BOTH** CBE 3300 A & B

Math/Nat Sci/Eng Elective4 \_\_\_\_\_\_\_\_  
 Math/Nat Sci/Eng Elective4 \_\_\_\_\_\_\_\_

**Ethics Requirement**

**UNDERGRADUATE FACULTY ADVISOR SIGN-OFF**

**Student Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Faculty Advisor:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

□ I have met with the above student and they can be cleared this student to register

**Faculty Advisor Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_

EAS 2030 (also counts as SS/H elective) or   
CBE 3200 (also counts as engineering elective)

**CBE Core Curriculum** (13 CUs)

ENGR 1050 *Intro to Scientific Computing*  
 CBE 1600 *Intro to Chemical Engineering*  
 CBE 2300 *Material and Energy Balances*  
 CBE 2310 *Thermodynamics of Fluids*  
 CBE 3500 *Fluid Mechanics*  
 CBE 3510 *Heat and Mass Transport*  
 CBE 3530 *Molec. Thermo. & Chem. Kin.*

CBE 3600 *Chemical Process Control*  
 CBE 3710 *Separation Processes* CBE 4000 *Intro to Product & Process Design*  
 CBE 4100 *Chemical Engineering Laboratory*  
 CBE 4510 *Chemical Reactor Design*  
 CBE 4590 *Product & Process Design*

**General Electives** (8 CUs)

WRIT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 SS/H \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 SS/H \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 SS/H \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 SS/H \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 SS/H/TBS \_\_\_\_\_\_\_\_\_\_\_\_  
 SS/H/TBS \_\_\_\_\_\_\_\_\_\_\_\_   
 Free Elective\_\_\_\_\_\_\_\_\_\_

**Four-Year Plan**

**Freshman Year**

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| **Fall Semester (20\_\_\_)** | **Spring Semester (20\_\_\_)** |
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**Sophomore Year**

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| **Fall Semester (20\_\_\_)** | **Spring Semester (20\_\_\_)** |
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**Junior Year**

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| **Fall Semester (20\_\_\_)** | **Spring Semester (20\_\_\_)** |
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**Senior Year**

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| **Fall Semester (20\_\_\_)** | **Spring Semester (20\_\_\_)** |
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