Sample Four Year Plan

Biochemistry and Molecular Biology (BS)

This plan provides an example pathway through the major, assuming a student will start in CHEM 130: Chemical Principles I in their first semester. Students who begin with CHEM 129: Basic Principles of Chemistry, because math placement is lower than Calculus, will take CHEM 130 in the Spring semester and should follow the alternative plan.

**FALL - Semester 1**
CHEM 130: Chemical Principles I  
MATH 198: Calculus I  
TRU 1XX: Self & Society  
BIOL 107: Cells, Molecules, and Genes

**SPRING - Semester 2**
CHEM 131: Chemical Principles II  
BIOL 330/300: Cell Biology or Genetics  
MATH 263: Calculus II  
ENG 190: Writing as Critical Thinking*

**FALL - Semester 3**
CHEM 245: Sophomore Seminar  
BIOL 330/300: Cell Biology or Genetics  
CHEM 329: Organic Chemistry I  
CHEM 275: Intro. to Inorganic Principles  
STAT 190: Introductory Statistics*  
COMM 170: Public Speaking*

**SPRING - Semester 4**
CHEM 331: Organic Chemistry II  
CHEM 330: Organic Chemistry I lab**  
CHEM 350: Analytical for Life Sciences (WE)  
LSP Mode Course I*

**FALL - Semester 5**
PHYS 185: Physics I***  
BCMB elective with lab****  
CHEM 345: Junior Seminar  
CHEM 332: Organic Chemistry II lab**  
LSP Foreign Language*  
LSP Mode Course 2*

**SPRING - Semester 6**
PHYS 186: Physics II***  
BIOL 518: Molecular Pharmacology  
BCMB elective 2****  
LSP Foreign Language*  
JINS 3xx : Junior Interdisciplinary Seminar *

**FALL - Semester 7**
BCMB 445: Senior Seminar  
CHEM 337: Physical Chemistry of Biochemical Systems  
LSP Mode Course 3*  
Elective  
Elective

**SPRING - Semester 8**
CHEM 326: Physical Chemistry Lab II (WE)  
BCMB elective 3****  
LSP Mode Course 4*  
Elective  
Elective

* LSP requirement; 2 Mode of Inquiry courses are satisfied by the major  
** Org I and II lab can be replaced by CHEM 333: Organic Chemistry Laboratory (2 credits)  
*** PHYS 195/6 also possible which would add 1 credit hour each semester  
****Elective courses that satisfy the “BCMB Elective” include:  
CHEM 435 - Advanced Topics in Biochemistry  
BIOL 308 - Virology  
BIOL 362 - Embryology and Developmental Biology  
BIOL 513 - Microbial Genetics  
BIOL 518 - Advanced Topics: Neurobiology  
BIOL 520 - Immunology  
BIOL 530 - Advanced Cell Biology
BIOL 540 - Cancer Biology
BIOL 551 - Genetics of Human Disorders
BIOL 552 - Molecular Genetics
BCMB 443 - Advanced Research

Department chair: please contact the Center for Academic Excellence with any updates to the plan above.