

**Example Program: Chemical and Biomolecular Engineering Degree**  
 Students entering Fall 2008 or later with no advanced placement credits

**Freshman Year/Fall**

030.101	Intro to Chemistry I	3
030.105	Intro to Chemistry I Lab	1
110.108	Calculus I	4
171.101	General Physics I	4
173.111	General Physics Lab I	1
540.101	Chemical and Biomol. Eng. in Workplace	1
<u>H/S Elective</u>		<u>3</u>
Total		17

**Freshman Year/Spring**

030.102	Intro to Chemistry II	3
030.106	Intro to Chemistry II Laboratory	1
110.109	Calculus II	4
171.102	General Physics II	4
<u>H/S Elective</u>		<u>3</u>
Total		15

**Sophomore Year/Fall**

540.202	Intro. Chemical & Biological Process Analysis	4
540.490	Chemical and Biomolecular Lab Safety and Ethics*	1
110.202	Calculus III	4
020.305	Biochemistry	4
030.205	Organic Chemistry I	4
<u>Total</u>		<u>17</u>

**Sophomore Year/Spring**

540.203	Engineering Thermo	3
540.303	Transport I	3
110.302	Differential Equations with Applications	4
020.306	Cell Biology	4
<u>Undesignated Electives</u>		<u>3</u>
Total		17

**Junior Year/Fall**

540.204	Applied Physical Chem.	3
540.304	Transport II Ph Chem or Biochem Laboratory **	4 3 or 2
540.305	Modeling and Stat Analysis for ChemBE.	3
<u>H/S Elective</u>		<u>3</u>
Total		15-16

**Junior Year/Spring**

540.301	Kinetic Processes	3
540.306	Chemical & Biological Separations	3
661.315	Culture of the Engineering Profession	3
Undesignated Elective		3
<u>Advanced Chemistry Elective</u>		<u>2 or 3</u>
Total		14 -15

**Senior Year/Fall**

540.311	Chemical Engineering Lab	6
540.409	Modeling Dynamics & Control for Chemical and Biological Systems	4
H/S Elective		3
<u>Engineering Elective</u>		<u>3</u>
Total		16

**Senior Year/Spring**

540.314	Chemical and Biomolecular Process Design	4
Engineering Elective		3
H/S Elective		3
<u>Undesignated Electives</u>		<u>5 to 7</u>
Total		15-17

\*This course must be taken no later than the junior year. This course must be passed in order to be allowed to be involved in research in our department.

\*\*Students with no concentration have to choose one of the following labs: 030.307 Physical Chemistry Instrumentation Lab III or 020.315 Biochemistry Lab

