

# Biology Major, Cellular/Molecular Emphasis Plan

The suggested schedule shown below should be used in conjunction with the major requirement sheet at:  
<http://www.usu.edu/majorsheets/>

Students should consult with their advisor to develop a plan of study tailored to their individual needs and interests.

## Freshman Year (30 credits)

### Fall Semester (15 credits)

<b>BIOL 1610</b> Biology I .....	4
<b>CHEM 1210</b> Principles of Chemistry I .....	4
<b>CHEM 1215</b> Chemical Principles Laboratory I .....	1
University Studies or MATH <sup>1</sup> prerequisite courses .....	6

### Spring Semester (15 credits)

<b>BIOL 1620 (BLS)</b> Biology II .....	4
<b>CHEM 1220 (BPS)</b> Principles of Chemistry II .....	4
<b>CHEM 1225</b> Chemical Principles Laboratory II .....	1
University Studies or MATH <sup>1</sup> prerequisite courses .....	6

## Sophomore Year (30-37 credits)

### Fall Semester (15-19 credits)

<b>BIOL 2220</b> General Ecology (3 cr) or <b>BIOL 3060 (QI)</b> Principles of Genetics (4 cr) .....	3 or 4
<b>CHEM 2310</b> Organic Chemistry I .....	4
<b>CHEM 2315</b> Organic Chemistry Laboratory I .....	1
<b>MATH 1210 (QL)</b> Calculus I .....	4
University Studies or elective courses .....	3-6

### Spring Semester (15-18 credits)

<b>BIOL 2220</b> General Ecology (3 cr) or <b>BIOL 3060 (QI)</b> Principles of Genetics (4 cr) .....	3 or 4
<b>CHEM 2320</b> Organic Chemistry II .....	4
<b>CHEM 2325</b> Organic Chemistry Laboratory II .....	1
<b>STAT 3000 (QI)</b> Statistics for Scientists .....	3
University Studies or elective courses .....	4-6

## Junior Year (30-34 credits)

### Fall Semester (15-18 credits)

<b>BIOL 5250 (CI)</b> Evolutionary Biology .....	3
<b>CHEM 5700</b> General Biochemistry I .....	3
<b>PHYS 2110</b> General Physics—Life Sciences I (4 cr) or <b>PHYS 2210 (QI)</b> General Physics—Science and Engineering I (4 cr) .....	4
Upper-division Physiology elective course(s) or Biology Biotechnology elective course(s) (3-5 cr) or	
Biology elective course(s) (3-5 cr) .....	3-5
University Studies or elective courses .....	2-3

### Spring Semester (15-16 credits)

<b>BIOL 5190</b> Molecular Genetics .....	3
<b>CHEM 5710</b> General Biochemistry II .....	3
<b>CHEM 5720</b> General Biochemistry Laboratory .....	3
<b>PHYS 2120 (BPS)</b> General Physics—Life Sciences II (4 cr) or <b>PHYS 2220 (BPS/QI)</b> General Physics—Science and Engineering II (4 cr) .....	4
University Studies or elective courses .....	2-3

## Senior Year (30-34 credits)

### Fall Semester (15-17 credits)

<b>BIOL 5210</b> Cell Biology .....	3
Upper-division Physiology elective course(s) or Biology Biotechnology elective course(s) (3-5 cr) or	
Biology elective course(s) (3-5 cr) .....	3-5
Biology elective course .....	3
University Studies or elective courses .....	6

### Spring Semester (15-17 credits)

<b>BIOL 5230</b> Developmental Biology .....	3
Biology elective course .....	3
Upper-division Physiology elective course(s) or Biology Biotechnology elective course(s) (3-5 cr) or	
Biology elective course(s) (3-5 cr) .....	3-5
University Studies or elective courses .....	6

<sup>1</sup>If students need Math courses prerequisite to MATH 1210, Calculus I, credits in addition to those listed here will be required.