

## Chem–Bio–Physics Curriculum for Biology Majors

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### SCIENCE COURSES REQUIRED FOR BIOLOGY MAJORS FOR TRANSFER TO TYPICAL CSU OR UC (\* required for UC only)

Biology: (110), 210, 220 (not necessarily sequential), 230

Chemistry: (192), 210, 220, 231, 232 (sequential)

Physics: (150), 210, \*211, 220, \*221 (sequential)

Courses in parentheses are not required, but are needed by students lacking in solid background, recent background, or confidence in the field.

Chemistry 220 is a prerequisite for Biology 230.

Math prerequisites for Physics: Math 130 (Trig) for 210; concurrent 242 or 252 for 211 (Engineering, Geology, Chemistry majors take Physics 250, 260, 270 instead of the above.)

### SUGGESTED PLANS FOR BIOLOGY MAJORS

Within each plan Biology courses may be shifted forward or back a semester. Some shifts are also possible with Physics and Chemistry, but there are more limitations due to scheduling. Due to changes in schedules over the years and in different semesters, there may be course conflicts. Students should check schedules or talk to science faculty to identify potential conflicts for the present and future semesters.

#### **Plan 1: 2 year “fast-track” for a student with strong Bio, Chem background (110, 192 not needed)**

Fall 1: Bio 210 or 220, Chem 210

Spring 1: Bio 220 or 210, Chem 220, Phys 150

Fall 2: Bio 230, Chem 231, Phys 210, 211 (UC)

Spring 2: Chem 232, Phys 220, 221 (UC)

#### **Plan 2: 3 year “paced”**

Fall 1: Bio 110

Spring 1: Bio 210 or 220, Chem 192

Fall 2: Bio 220 or 210, Chem 210

Spring 2: Chem 220, Phys 150

Fall 3: Bio 230, Chem 231, Phys 210, 211 (UC)

Spring 3: Chem 232, Phys 220, 221 (UC)

**Plan 3: 3 year “two-sciences-a-semester”**

Fall 1: Bio 110, Chem 192

Spring 1: Bio 210 or 220, Chem 210

Fall 2: Bio 220 or 210, Chem 220

Spring 2: Bio 230, Phys 150

Fall 3: Chem 231, Phys 210, 211 (UC)

Spring 3: Chem 232, Phys 220, 221 (UC)

**Plan 4: 2 year “fast-track” for a CSU transfer student with strong Bio, Chem, Phys background**

Fall 1: Bio 210, Chem 210, Phys 210

Spring 1: Bio 220, Chem 220, Phys 220

Fall 2: Bio 230, Chem 231

Spring 2: Chem 232

**Plan 1: 2 year “fast-track” for a student with strong Bio, Chem background (110, 192 not needed)**

Fall 1: Bio 210 or 220, Chem 210  
Spring 1: Bio 220 or 210, Chem 220, Phys 150  
Fall 2: Bio 230, Chem 231, Phys 210, 211 (UC)  
Spring 2: Chem 232, Phys 220, 221 (UC)

**Plan 2: 3 year “paced”**

Fall 1: Bio 110  
Spring 1: Bio 210 or 220, Chem 192  
Fall 2: Bio 220 or 210, Chem 210  
Spring 2: Chem 220, Phys 150  
Fall 3: Bio 230, Chem 231, Phys 210, 211 (UC)  
Spring 3: Chem 232, Phys 220, 221 (UC)

**Plan 3: 3 year “two-sciences-a-semester”**

Fall 1: Bio 110, Chem 192  
Spring 1: Bio 210 or 220, Chem 210  
Fall 2: Bio 220 or 210, Chem 220  
Spring 2: Bio 230, Phys 150  
Fall 3: Chem 231, Phys 210, 211 (UC)  
Spring 3: Chem 232, Phys 220, 221 (UC)

**Plan 4: 2 year “fast-track” for a CSU transfer student with strong Bio, Chem, Phys background**

Fall 1: Bio 210, Chem 210, Phys 210  
Spring 1: Bio 220, Chem 220, Phys 220  
Fall 2: Bio 230, Chem 231  
Spring 2: Chem 232