

## Biology BS 4 year roadmap for Freshmen, with 1 year of Organic Chemistry

First year on **Quarter System**, then switching to **Biology BS on Semester Catalog** in Fall 2020

### Year 1: Freshman Year (Quarter system) Total QTR Units: 48

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
MATH 192 or 211	F & W & S	4	<input type="checkbox"/>		<input checked="" type="checkbox"/>	See Notes 1 and 2
ENG 102, 105, or 107	F & W & S	4	<input type="checkbox"/>		<input checked="" type="checkbox"/>	See Note 3
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE-E1	F & W & S	2	<input type="checkbox"/>		<input type="checkbox"/>	See Note 4
CHEM 215	Fall&Winter	6	<input checked="" type="checkbox"/>	MATH 110*	<input checked="" type="checkbox"/>	*or co-req; Note 5
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE-E2	F & W & S	2	<input checked="" type="checkbox"/>		<input type="checkbox"/>	See Note 4
CHEM 216	Winter&Spring	6	<input type="checkbox"/>	CHEM 215	<input checked="" type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	

### Year 2: Sophomore Year (Semesters) Total Units: 30

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL 2010	Fall	5	<input checked="" type="checkbox"/>	CHEM 215	<input type="checkbox"/>	
CHEM 2400 + 2400L	Fall & Spring	4	<input checked="" type="checkbox"/>	CHEM 216	<input type="checkbox"/>	
PHYS 2000 + 2000L	Fall & Spring	5	<input checked="" type="checkbox"/>	MATH 192/211	<input type="checkbox"/>	
BIOL 2020	Spring	5	<input checked="" type="checkbox"/>	BIOL 2010	<input type="checkbox"/>	
CHEM 2500 + 2500L	Fall & Spring	4	<input checked="" type="checkbox"/>	CHEM 2400+L	<input type="checkbox"/>	
PHYS 2010 + 2010L	Fall & Spring	4	<input checked="" type="checkbox"/>	PHYS 2000+L	<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	

### Year 3: Junior Year (Semesters) Total Units: 28

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL Group A class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Notes 6 and 7
BIOL Group B class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL Group C class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL Group D class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	

### Year 4: Senior Year (Semesters) Total Units: 30

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL major elective	Fall & Spring	5	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL 5000	Fall & Spring	1	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
Free elective		3	<input type="checkbox"/>		<input type="checkbox"/>	
Free elective		3	<input type="checkbox"/>		<input type="checkbox"/>	

**Degree Units 120** (includes 32 semester unit equivalents from 48 quarter units in year 1)

**Biology BS 4 year roadmap for Freshmen, with 1 sem. Organic Chem. and 1 sem. Biochem.**  
**First year on Quarter System, then switching to Biology BS on Semester Catalog in Fall 2020**

**Year 1: Freshman Year (Quarter system) Total QTR Units: 48**

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
MATH 192 or 211	F & W & S	4	<input type="checkbox"/>		<input checked="" type="checkbox"/>	See Notes 1 and 2
ENG 102, 105, or 107	F & W & S	4	<input type="checkbox"/>		<input checked="" type="checkbox"/>	See Note 3
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE-E1	F & W & S	2	<input type="checkbox"/>		<input type="checkbox"/>	See Note 4
CHEM 215	Fall&Winter	6	<input checked="" type="checkbox"/>	MATH 110*	<input checked="" type="checkbox"/>	*or co-req; Note 5
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE-E2	F & W & S	2	<input checked="" type="checkbox"/>		<input type="checkbox"/>	See Note 4
CHEM 216	Winter&Spring	6	<input type="checkbox"/>	CHEM 215	<input checked="" type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	

**Year 2: Sophomore Year (Semesters) Total Units: 31**

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL 2010	Fall	5	<input checked="" type="checkbox"/>	CHEM 215	<input type="checkbox"/>	
CHEM 2300 + 2400L	Fall & Spring	5	<input checked="" type="checkbox"/>	CHEM 216	<input type="checkbox"/>	
PHYS 2000 + 2000L	Fall & Spring	5	<input checked="" type="checkbox"/>	MATH 192/211	<input type="checkbox"/>	
BIOL 2020	Spring	5	<input checked="" type="checkbox"/>	BIOL 2010	<input type="checkbox"/>	
CHEM 4100 + 4100L	Fall & Spring	4	<input checked="" type="checkbox"/>	CHEM 2300 or 2500	<input type="checkbox"/>	Biol 2010 is prereq
PHYS 2010 + 2010L	Fall & Spring	4	<input checked="" type="checkbox"/>	PHYS 2000+L	<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	

**Year 3: Junior Year (Semesters) Total Units: 28**

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL Group A class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Notes 6 and 7
BIOL Group B class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL Group C class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL Group D class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	

**Year 4: Senior Year (Semesters) Total Units: 29**

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL 5000	Fall & Spring	1	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
Free elective		3	<input type="checkbox"/>		<input type="checkbox"/>	
Free elective		3	<input type="checkbox"/>		<input type="checkbox"/>	

**Degree Units 120** (includes 32 semester unit equivalents from the 48 quarter units in year 1)

# Biology BS 4 year roadmap for Freshmen, with Organic Chem. and Quantitative Chem.

First year on **Quarter System**, then switching to **Biology BS on Semester Catalog** in Fall 2020

**Year 1: Freshman Year (Quarter system) Total QTR Units: 48**

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
MATH 192 or 211	F & W & S	4	<input type="checkbox"/>		<input checked="" type="checkbox"/>	See Notes 1 and 2
ENG 102, 105, or 107	F & W & S	4	<input type="checkbox"/>		<input checked="" type="checkbox"/>	See Note 3
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE-E1	F & W & S	2	<input type="checkbox"/>		<input type="checkbox"/>	See Note 4
CHEM 215	Fall&Winter	6	<input checked="" type="checkbox"/>	MATH 110*	<input checked="" type="checkbox"/>	*or co-req; Note 5
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE-E2	F & W & S	2	<input checked="" type="checkbox"/>		<input type="checkbox"/>	See Note 4
CHEM 216	Winter&Spring	6	<input type="checkbox"/>	CHEM 215	<input checked="" type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	
GE		4	<input type="checkbox"/>		<input type="checkbox"/>	

**Year 2: Sophomore Year (Semesters) Total Units: 31**

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL 2010	Fall	5	<input checked="" type="checkbox"/>	CHEM 2015	<input type="checkbox"/>	
CHEM 2300 + 2400L	Fall & Spring	5	<input checked="" type="checkbox"/>	CHEM 216	<input type="checkbox"/>	
PHYS 2000 + 2000L	Fall & Spring	5	<input checked="" type="checkbox"/>	MATH 192/211	<input type="checkbox"/>	
BIOL 2020	Spring	5	<input checked="" type="checkbox"/>	BIOL 2010	<input type="checkbox"/>	
CHEM 3200	Fall & Spring	4	<input checked="" type="checkbox"/>	CHEM 2200+L	<input type="checkbox"/>	
PHYS 2010 + 2010L	Fall & Spring	4	<input type="checkbox"/>	PHYS 2000+L	<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	

**Year 3: Junior Year (Semesters) Total Units: 28**

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL Group A class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Notes 6 and 7
BIOL Group B class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL Group C class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL Group D class	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	

**Year 4: Senior Year (Semesters) Total Units: 29**

Course	Term(s) Offered	Units	Pre-req Req'd	Pre-req Course(s)	Avail Summer	Notes
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL major elective	Fall & Spring	4	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	See Note 7
BIOL 5000	Fall & Spring	1	<input checked="" type="checkbox"/>	BIOL 2020	<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
GE		3	<input type="checkbox"/>		<input type="checkbox"/>	
Free elective		3	<input type="checkbox"/>		<input type="checkbox"/>	
Free elective		3	<input type="checkbox"/>		<input type="checkbox"/>	

**Degree Units 120** (includes 32 semester unit equivalents from the 48 quarter units in year 1)

**Notes for 2019 Freshman Biology BS roadmaps**

Note 1: Students may also want to take Math 120 prior to calculus

Note 2: May have to take Math 110, 111A/B, 112A/B/C prior to calculus

Note 3: If ENG 102, then take 103 and 104 in subsequent quarters; If ENG 105, then take 106 in subsequent quarter

Note 4: Taking GE-E1 and GE-E2 during quarters will fulfill the GE-E requirement on semester system

Note 5: MATH 110 is pre-requisite or co-requisite, or suitable math placement

Note 6: Group A classes may have CHEM 2300 or 2400 as prerequisites

Note 7: Some BIOL major courses may be 3 or 5 units instead of 4