



**Biology/Math Double Major - Total Minimum Credits 132**  
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**Year 1**

Courses		Cr.	Grade
R120:101	General Biology I	4	
Chem 125	General Chemistry I	3	
Math 111	Calculus I	4	
HUM 101	English I	3	
BNFO 135	Bioinformatics I	3	
Frsh Sem	Freshman Seminar	0	
		17	

Courses		Cr.	Grade
R120:102	General Biology II	4	
Chem 124	General Chem. Lab	1	
Chem 126	General Chemistry II	3	
Math 112	Calculus II	4	
HUM 102	English II	3	
GUR Elective	Physical Education	1	
		16	

**Year 2**

Courses		Cr.	Grade
R120:301/302	Foundations of Biology	4	
Chem 243	Organic Chemistry I	3	
Phys 111	Physics I	3	
Phys 111A	Physics I Lab	1	
Math 211	Calculus III	3	
BNFO 136	Bioinformatics II	3	
		17	

Courses		Cr.	Grade
Chem 244/244A	Organic Chemistry II & Lab	5	
Phys 121	Physics II	3	
Phys 121A	Physics II Lab	1	
Math 337	Linear Algebra	3	
GUR Elective	Social Sciences	3	
GUR Elective	Physical Education	1	
		16	

**Year 3**

Courses		Cr.	Grade
Math 222	Differential Equations	4	
Math 340	Numerical Methods	3	
Math 372	Population Biology	3	
Biology Elective	Biology with lab*	4	
GUR Elective	English and Cultural Hist.	3	
		17	

Courses		Cr.	Grade
Math 331	Partial Differential Eq.	3	
Math 332	Complex Variables	3	
Biology Elective	Math Bio Elective	3	
Elective	Biology with Lab*	4	
GUR Elective	Social Sciences	3	
		16	

**Year 4**

Courses		Cr.	Grade
Math 333	Probability and Statistics	3	
Math 430	Computational Neurosci.	3	
Math 450	Capstone I	3	
Math 480	Advanced Calculus	3	
Biology Elective	Biology*	3	
GUR Elective	HSS Upper Level	3	
		18	

Courses		Cr.	Grade
Math 451	Capstone II	3	
Elective	Biology with lab*	3 or 4	
MGMT 390	Principles of Management	3	
GUR Elective	HSS Upper Level	3	
GUR Elective	HSS Senior Seminar	3	
		15/16	

Total Minimum Credits: 132

Biology Credits: 35 (including General Biology I, II, and Foundations of Biology)

Math Credits: 44

\*One Biology elective must be taken from categories A, B and C; and one Math-Bio elective from category D

**A. ECOLOGY AND EVOLUTION**

- Evolution (120:322 OR Biol 222)
- Ecology & Evolution of Disease (Biol 368)
- Plant Ecology (120:370)
- Ecology (120:380)
- Animal Behavior (120:382)
- Neural Basis of Behavior (Biol 383)

**C. MOLECULAR AND CELLULAR:**

- Genetics (R120:352)
- Cell Biology (R120:355)
- Molecular Biology (R120:356)
- Biochemistry (R120:360 OR Chem 473)

**B. FUNCTIONAL ORGANISM (All Courses 4 credits)**

- Plant Kingdom (R120-211)
- Biology of Seed Plants (R120:230)
- Plant Physiology (R120:330)
- General Microbiology (R120:335)
- Mammalian Physiology (R120:340)
- Developmental Biology & Lab (R120:342/342)

**D. MATH BIO ELECTIVES:**

- Medicine and Physiology (Math 371)
- Introduction to Math Bio (Math 373)