



## Accelerated BA BIOLOGY / MD, DMD, DDS, OD 112 Credit Minimum

### FIRST YEAR

<b>1st Semester</b>		<b>Credits</b>	<b>2nd Semester</b>		<b>Credits</b>
R120:101	General Biology I	4	R120:102	General Biology II	4
Chem 125	General Chemistry I	3	Chem 124	General Chem. Lab	1
Math 111	Calculus I - GUR	4	Chem 126	General Chemistry II	3
Phys 111	Physics I	3	Phys 121	Physics II	3
Phys 111A	Physics I Lab	1	Phys 121A	Physics II Lab	1
HUM 101	English -GUR	3	HUM 102	English II - GUR	3
Frsh Sem	Freshman Seminar -GUR	0	GUR Elective	Social Science	3
<b>Total:</b>		<b>18</b>	<b>Total:</b>		<b>18</b>

### Summer I

	<b>Credits</b>
GUR Elective English and Cultural History	3
GUR Elective Social Science	3
<b>Total:</b>	<b>6</b>

### SECOND YEAR

<b>1st Semester</b>		<b>Credits</b>	<b>2nd Semester</b>		<b>Credits</b>
120:201/202	Foundations of Biology	4	Elective	Biology with Lab	4
Chem 243	Organic Chemistry I	3	Elective	Biology	3
Math 105	Probability & Statistics-GUR	3	Chem 244	Organic Chemistry II	3
GUR Elective	HSS Upper Level	3	Chem 244A	Organic Chemistry Lab	2
BNFO 135	Prog. For Bioinformatics I	3	Elective	Free Elective	3
GUR Elective	Physical Education	1	GUR Elective	Physical Education	1
<b>Total:</b>		<b>17</b>	<b>Total:</b>		<b>16</b>

### Summer II

	<b>Credits</b>
GUR Elective HSS Upper Level	3
GUR Elective Management	3
<b>Total:</b>	<b>6</b>

### THIRD YEAR

<b>1st Semester</b>		<b>Credits</b>	<b>2nd Semester</b>		<b>Credits</b>
Elective	Biology with Lab	4	Elective	Biology with Lab	3 or 4
Elective	Biology	3	Elective	Biology	3
Elective	Biology	3	GUR Elective	HSS Senior Seminar	3
Elective	Technical Elective <sup>1</sup>	3	Elective	Technical Elective <sup>1</sup>	3
Elective	Free Elective or COOP <sup>2</sup>	3	Elective	Free Elective	3
<b>Total:</b>		<b>16</b>	<b>Total:</b>		<b>15</b>

Minimum Credits 112

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

<sup>1</sup> Technical Electives - Any course in biology chemistry, mathematics or physics beyond what is required for the major. Any course in architecture (except history), environmental science, computer science or engineering.

<sup>2</sup> Students enrolled in optometry program must complete one semester of Cooperative Education.



**BIOLOGY ELECTIVES MUST BE CHOSEN AS OUTLINED BELOW:**

**One course must be taken from A, B, and C**

**A. ECOLOGY AND EVOLUTION**

*All courses three credits*

Evolution (120:222 & Biol 222)  
Ecology & Evolution of Disease (Biol 368)  
Plant Ecology (120:270)  
Ecology (120:280)  
Animal Behavior (120:382)  
Neural Basis of Behavior (Biol 383)

**B. THE FUNCTIONAL ORGANISM**

*All courses four credits*

Plant Kingdom (120:211)  
Biology of Seed Plants (120:230)  
Plant Physiology (120:330)  
General Microbiology (120:335)  
Mammalian Physiology (120:340)  
Developmental Biology & Lab (120:342 & 343)

**C. MOLECULAR AND CELLULAR MECHANISMS**

*All courses three credits*

Genetics (120:352)  
Cell Biology (120:355)  
Molecular Biology (120:356)  
Biochemistry (120:360 OR Chem 473)

**D. MAJORS ARE REQUIRED TO HAVE AT TWO ADDITIONAL LABORATORY OR FIELD COURSES CHOSEN FROM SECTION B ABOVE OR FROM THE LIST BELOW:**

**Laboratory Courses (4 cr.)**

Biology of Invertebrates (120:227)  
Comparative Vertebrate Anatomy (120:285)  
Taxonomy of Vascular Plants (120:311)  
Animal Parasites & Lab (120:325 & 326)  
Microanatomy (120:358)  
Mycology (120:413)  
Plant Growth & Dev. (120:430)  
Marine Biology (120:481)

**Laboratory Courses (3 cr.)**

Ecology of Birds (120:328)  
Field Studies in Plant Ecology (120:371)  
Field Studies in Animal Ecology (120:381)  
Field Ecology (120:380)

**Laboratory Courses (2 cr.)**

Tropical Field Biology (120:486)

**E. THE COURSES LISTED BELOW MAY BE USED TO COMPLETE 35 CREDITS OF BIOLOGY COURSE WORK**

*All courses three credits unless specified*

Insects and Human Society (Biol 225)  
Neurobiology (120:346)  
Human Ecology (120:365)  
Physiology and Medicine (Math 371)  
Population Biology (Math 372)  
Introduction to Math Biology (Math 373)  
Biological Ultrastructure (120:403)  
Light & Elect Microscope (120:404)  
Cell Physiology & Imaging (Biol 405)  
Biological Invasions (120:422)

Computational Neuroscience (Math 430)  
Immunology (120:443)  
Endocrinology (120:445)  
Cellular and Systems Neuroscience (Biol 447)  
Cellular Biophysics (120:451) 4 crs.  
Molecular Biotechnology (120:452) 4 crs.  
Molecular Cell Biology (120:455)  
Ecological Physiology (120:471)  
Systems Ecology (120:487)  
Problems in Biol. BIOL 491-492 (6crs. max.)