ACCELERATED B.A. BIOLOGY ⇄ MD, DMD, DDS, OD

First Three Years Minimum Credits: 112

YEAR 1

Fall Semester		Cr.	Spring Semester		Cr.
HUM 101	English I	3	HUM 102	English Composition II	3
Math 111	Calculus I	4	Phys 121	Physics II	3
Phys 111	Physics I	3	Phys 121A	Physics II Laboratory	1
Phys 111A	Physics I Laboratory	1	Chem 124	General Chemistry Laboratory	1
Chem 125	General Chemistry I	3	Chem 126	General Chemistry II	3
BIOL 200	Concepts in Biology	4	R120:201/202	Foundations of Cell/Molec	4
Frsh Sem	Freshman Seminar	0	GUR Elective	Social Sciences[1]	3
		18			18

Summer Semester I		Cr.
GUR Elective	English and Cultural History[2]	3
GUR Elective	Social Sciences	3
		6

YEAR 2

Fall Semester		Cr.	Spring Semester		Cr.
Math 105	Probability & Statistics-GUR	3	Biology Elective	Cluster Elective - Functional Org.	4
BNFO 135	Bioinformatics I	3	Biology Elective	Cluster Elective - Ecol/Evol	3
BIOL 205/206	Foundation of Ecol/Evol	4	Chem 244	Organic Chemistry II	3
Chem 243	Organic Chemistry I	3	Chem 244A	Organic Chemistry Lab	2
GUR Elective	HSS Upper Level[3]	3	Elective	Technical Elective[4]	3
GUR Elective	Physical Education	1	GUR Elective	Physical Education	1
		17			16

Summer Semester II		Cr.
GUR Elective	HSS Upper Level	3
GUR Elective	Management[5]	3
		6

YEAR 3

Fall Semester		Cr.	Spring Semester		Cr.
Biology Elective	Cluster Elective - Molec/Cell	3	Biology Elective	BIO Laboratory Elective	3
Biology Elective	BIO Laboratory Elective[6]	4	Biology Elective	Biology Elective	3
Biology Elective	Biology Elective	3	Biology Elective	Biology Elective	3
GUR Elective	HSS Senior Seminar	3	Elective	Technical Elective	3
Elective	Free Elective or COOP[7]	3	Elective	Free Elective	3
		16			15

Total Minimum Credits: 112

Biology Credits: 38

[1] Social Science Electives: EPS 202, ECON 201/265/266, STS 257/258, approved Rutgers courses.

[2] English & Cultural History: HUM 211, 212 or HIST 213, approved Rutgers courses.

[3] HSS Upper Level: 300-level course in COM, ENG, HIST, LIT, PHIL, STS, THTR, or approved Rutgers courses.

[4] Technical Electives: Any course in biology, chemistry, math or physics beyond major requirements. Any course in environmental science, computer science or engineering.

[5] Management Elective: Choice of HRM 301, MGMT 390, ENTR 410 or IE 492.

[6] Laboratory Elective: Choice of *one* 3 credit and *one* 4 credit laboratory.

[7] Students enrolled in the optometry program must complete one semester of Cooperative Education.

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REQUIRED CORE BIOLOGY COURSES ~ 12 Credits

- ❑ R120/BIOL 200 Concepts in Biology* (4cr) **Effective from Fall 2011*
- ❑ R120:201 Foundations of Cell & Molecular Biology Lecture (3cr)
- ❑ R120:202 Foundations of Cell & Molecular Biology Lab (1cr)
- ❑ BIOL 205 Foundations of Ecology & Evolution Lecture (3cr)
- ❑ BIOL 206 Foundations of Ecology & Evolution Lab (1cr)

CONCEPT CLUSTER COURSES ~ 10 Credits

*Accelerated Majors must complete **one course from each of** the following three concept cluster elective categories.*

❑ **Ecological and Evolutionary Framework** (3cr)
- Evolution (BIOL 222)
- Ecology (R120:280)
- Animal Behavior (R120:282)
- Plant Ecology (R120:370)

❑ **Molecular and Cellular Mechanisms** (3cr)
- Genetics (R120:352)
- Cell Biology (R120:355)
- Molecular Biology (R120:356)
- Biochemistry (R120:360)

❑ **The Functional Organism** (4cr)
- Plant Kingdom (R120:211)
- Biology of Seed Plants (R120:230)
- Plant Physiology (R120:330)
- General Microbiology (R120:335)
- Mammalian Physiology (R120/BIOL 340)
- Developmental Biology & Lab (R120:342/343)

LABORATORY/FIELD EXPERIENCE ~ 7 Credits

*Accelerated Majors must complete **one 3 credit and one 4 credit lab** in this category:*

❑ **Four Credit Laboratories** (4cr)
- Plant Kingdom (R120:211)
- Biology of Invertebrates (R120:227)
- Biology of Seed Plants (R120:230)
- Comparative Vertebrate Anatomy (R120:285)
- Taxonomy of Vascular Plants (R120:311)
- Mycology (R120:313)
- Animal Parasites & Parasitology Lab (R120:325/326)

Four Credit Laboratories (cont.)
- Plant Physiology (R120:330)
- General Microbiology (R120:335)
- Mammalian Physiology (R120:340)
- Developmental Biology & Lab (R120:342/343)
- Microanatomy of Tissues (R120:405)
- Plant Growth and Development (R120:430)
- Cell Physiology and Imaging (BIOL 451)

❑ **Three Credit Laboratories** (3cr)
- Ecology of Birds (R120:328)
- Field Plant Ecology (R120:371)
- Field Ecology (R120:380)

Three Credit Laboratories (cont.)
- Field Animal Ecology (R120:381)
- Analytical Field Ecology (BIOL 475)
- Tropical Field Ecology-*2cr* (R120:485)

BIOLOGY ELECTIVES ~ 9 Credits

*The courses listed below may be used to complete the **38** required credits of biology course work, once approved by the Advisor:*

- Animal Parasites (R120:325)
- Developmental Biology (R120:342)
- Comparative Physiology (R120:345)
- Neurobiology (R120/BIOL 346)
- Immunology (R120:350)
- Human Ecology (R120:365)
- Conservation Biology (BIOL 375)
- Neural Basis of Behavior (BIOL 383)
- Ecology and Evolution of Disease (BIOL 368)
- Biology of Cancer (R120:402)
- Biological Invasions (R120:422)
- Cell Biology of Disease (BIOL 440)
- Endocrinology (R120:445)
- Cellular and Systems Neuroscience (BIOL 447)
- Neuropathophysiology (BIOL 448)
- Molecular Cell Biology (R120:455)
- Virology (R120:456)
- Environmental Assessment (R120:472)
- Research and Independent Study (BIOL 491)
- Research and Independent Study (BIOL 492)
- Seminar in Biology (R120:493)
- Seminar in Biology (R120:494)