

**“Rutgers University – Camden
Undergraduate Biology**

Course Plan Form for BS in Biology

A. Required Courses

BASIC COURSES		
Courses	Minimum Credits	Course Number
General Biology I lecture, lab, recitation ¹	5	120:101, 107, 111
General Biology II lecture, lab, recitation	5	120:102, 108, 112
Calculus I or Active Calculus I	4	640:121 or 640:123
Statistics for Biological Research	3	120:283
Chemical Principles I with a lab	5	160:115, 125
Chemical Principles II with a lab	5	160:116, 126
Organic Chemistry I with a lab	5	160:335, 339
Organic Chemistry II with a lab	5	160:336, 340 (for BMS)
General Physics I with a lab	4	750:203, 133
General Physics II with a lab	4	750:204, 134

ELECTIVE COURSES

At least one course from each category should be taken.

- A. Courses Focused on Molecular Biology
 - a. Molecular Biology (305/306)
 - b. Genetics (307/308)
 - c. Human Genetics (311)
- B. Courses Focused on Cellular Biology
 - a. Cell Biology (334/335)
 - b. Neurobiology I (344)
 - c. General Microbiology (330/331)
 - d. General Physiology (341/342)

- C. Courses Focused on Organismal Biology
 - a. Advanced A&P I (300/302)
 - b. Developmental Botany (360)
 - c. Plant Physiology (366/367)
 - d. Mycology (402/403)
- D. Courses Focused on Ecology and Evolution
 - a. Evolution (310/313)
 - b. General Ecology I (351/353)

ELECTIVE COURSES

From Biology (50:120) at 300 level or higher graduate courses (56:120).

It is allowed to use up to 3 courses from the courses offered from other program in the list below;

- General Biochemistry I (115:403/407)
- General Biochemistry II (115:404/408)
- Genome Informatics I (121:552)
- Essentials of Biophysics (121:565)

4 ELECTIVE LAB COURSES

Ecology & Evolution requires both Evolution (310) and General Ecology (351)

7 ELECTIVE LECTURE COURSES

Ecology & Evolution requires 6 Elective Lecture Courses. Here are the acceptable course options: Molecular Evolution (312), Applied Ecology (354), Development and Evolution (359), Comparative Morphology of Plants (362), Plant Ecology (363), Evolution Morphology (371), Advanced Community Ecology (394), Ecology of Soil Organisms (422), Tropical Field Ecology (450), Medical, Industrial, and Environmental Mycology (460), Urban Ecology (56:502) and Population Ecology (56:590).

SENIOR WRITING

Courses	Minimum Credits	Course Number
Current Topics in Biology	3	120:399

B. Certificate of Life Science Research

The following courses are not required for the B.S. in Biology degree. For those who complete the course plan will receive the Certificate of Life Science Research after successfully completing the courses in order.

INDEPENDENT RESEARCH

Courses	Minimum Credits	Course Number
Exploring Careers in Biology (Research Shadowing)	1	199
Principles and Practices of Biological Research ³	4	390/391
Independent Research in Biology ⁵	3	491
Independent Research in Biology ⁵	3	492

HONORS THESIS

Courses	Minimum Credits	Course Number
Honor Thesis I ⁶	3	495
Honor Thesis II ⁶	3	496