

# Biology (B.A.)

## Degree Type

Bachelor's

The BA program in Biology at Russell Sage College provides a broad overview of modern biological findings and investigative techniques, along with necessary scientific background in mathematics, physics, and chemistry. This program provides strong preparation for employment and further study in biology and in professional fields including medicine, occupational therapy, physical therapy, veterinary science, and education. To achieve these ends, the program features instruction in many settings, including classrooms, internship placements, field settings, seminars, and laboratories. To emphasize independent research, every student completes an independent research project. Additionally, most students take advantage of internship opportunities in Capital District hospitals, research laboratories, and governmental agencies. [54-56 credits]

In addition to completing the BA in Biology degree students may also complete the BA in Biology degree with tracks in OT or PT (if accepted):

Biology BA to Occupational Therapy MS (3+2)

Biology BA to Occupational Therapy MS (4+2)

Biology BA to Physical Therapy DPT (3+3)

Biology BA to Physical Therapy DPT (4+3)

## Core Requirements

- Complete all of the following:

Item #	Title	Credits
BIO 101	General Biology I	4
BIO 101L	General Biology I - Lab	0
BIO 102	General Biology II	4
BIO 102L	General Biology II Lab	0
BIO 150	Writing in Biology	1
BIO 207	Fundamentals of Genetics	3
BIO 208	Microbiology	4
	BIO 300 or 400 Level Elective Course	3-4
BIO 326	Principles of Ecology	3
BIO 359	Explorations in Research Methods	3
	BIO 401 or BIO 427	3
BIO 415	Cell and Molecular Biology	4
BIO 450	Seminar in Biology	3
CHM 111	General Chemistry I	4
CHM 112	General Chemistry II	4
MAT 220	Applied Statistics	4

## Required Electives

- Complete two of the following courses:

Item #	Title	Credits
CHM 104	Introduction to Organic & Biochemistry	4
CHM 201	Organic Chemistry I	4
CHM 202	Organic Chemistry II	4
CHM 205	Chemical Analysis	3
CHM 220	Nutritional Biochemistry	3
CHM 302	Instrumental Analysis	4
CHM 303	Biochemistry	3
MAT 201	Calculus I	4
PHY 101	General Physics I	3
PHY 102	General Physics II	3

## Degree Completion Notes

- Total credits required for a bachelor's degree (minimum): 120 credits
- 1/2 of major requirements must be completed at Sage
- Completion of [General Education Program](#) Requirements
- Cumulative GPA required for graduation (minimum): 2.000
- Minimum major GPA required for graduation (minimum): 2.200

# Suggested Program of Study

The following is a general course plan for the Biology major. Other course sequences are possible. Consult your faculty advisor or the Biology Program Director for assistance. Students may shift elective and/or general education courses around to pursue other courses of personal interest or compensate for scheduling conflicts.

## **Year 1 - Fall (15 credits)**

BIO 101/BIO 101L Gen Bio I

BIO 150 Writing in Biology

CHM 111/CHM 111L/CHM 111R Gen Chem I

RSC 101 Thriving at Sage

WRT 101 Writing in Community

## **Year 1 - Spring (17 credits)**

BIO 102/BIO 102L Gen Bio II

CHM 112/CHM 112L/CHM 112R Gen Chem II

WRT 201 Researching in Community

General Education course (Soc Sci)

General Elective course

## **Year 2 - Fall (16 credits)**

BIO 208/BIO 208L Microbiology

RSC 201 Intercultural Perspectives

General Education course (Wellness)

General Elective course

General Elective course

## **Year 2 - Spring (16 credits)**

BIO 207 Fundamentals of Genetics

MAT 220 Applied Statistics

General Education (Humanities)

General Education (Dist Elective)

General Elective course

## **Year 3 - Fall (16 credits)**

BIO 326 Principles of Ecology

CHM or PHY Elective

RSC 301 Innovating to Impact

General Education course (Arts)

General Elective course

Year 3 - Spring (16 credits)

BIO 208 Microbiology

BIO 300 or 400 Level course

BIO 359 Explor in Research Methods

General Elective course

General Elective course

**Year 4** - Fall (16 credits)

BIO 401 Indep Project or BIO 427 Internship

CHM or PHY Elective

General Elective course

General Elective course

General Elective course

Year 4 - Spring (13-16 credits)

BIO 401 Independent Project (con't)

BIO 415 Cell and Molecular Biology

BIO 450 Seminar in Biology

General Elective course

General Elective course

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**Total Credits**

**54-56**

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