

Name:

BU ID:

Specialization in Ecology & Conservation Biology

Boston University College of Arts & Sciences
Department of Biology

REQUIREMENTS

- ✓ 128 credits including 12 biology courses; 6-7 related chemistry, math/computer science, and physics courses; second language proficiency; and 26 Hub units.
- ✓ C or higher is required for credit in all biology, math/computer science, and physics courses; C- or higher is necessary for credit in all required chemistry courses.
- ✓ Excluding Introductory Biology courses: a) at least three biology courses must have a laboratory component; b) at least three biology courses must be at the 300+ level; and c) at least five biology courses must be taken in the BU Biology Department.

INTRODUCTORY BIOLOGY

Both courses are required.

BI 107 BI 108 or BI 116

FOUNDATION COURSES

All three courses are required.

BI 206 or BI 216
BI 303 ♦
BI 448

♦ Course will count toward the requirement for 3 lab courses.

BREADTH REQUIREMENT

Choose one course from the following area of biology.

Physiology & Neurobiology (PN)

BI 310 ♦
BI 315 ♦
BI 325

ECB ELECTIVES

All six courses are required. See **Courses by Semester and Optional Programs** on SIDE II.

1 _____	4 _____
2 _____	5 _____
3 _____	6 _____

CHEMISTRY COURSES

See **Chemistry Requirements** on SIDE II.

1 _____	2 _____	3 _____
		<i>(If on standard track)</i>

MATH & COMPUTER SCIENCE COURSES

See **Math & Computer Science Requirements** on SIDE II.

1 _____	2 _____
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PHYSICS COURSES

See **Physics Requirements** on SIDE II.

1 _____	2 _____
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GENERAL EDUCATION REQUIREMENTS

For more details visit the **CAS Degree Overview** page.

CAS 2nd Language Requirement:

Proficiency through the fourth semester: I II III IV

BU Hub Units:

PLM	SI1	QR1	IIC	FYW	CRT
AEX	SO1	QR2	GCI	WRI	RIL
HCO	SI2/ SO2		ETR	WIN	TWC
				OSC	CRI
				DME	

	FALL	SPRING
FIRST YEAR	1 _____	1 _____
	2 _____	2 _____
	3 _____	3 _____
	4 _____	4 _____
	SUM1 _____	SUM2 _____
SOPHOMORE YEAR	FALL	SPRING
	1 _____	1 _____
	2 _____	2 _____
	3 _____	3 _____
	4 _____	4 _____
SUM1 _____	SUM2 _____	
JUNIOR YEAR	FALL	SPRING
	1 _____	1 _____
	2 _____	2 _____
	3 _____	3 _____
	4 _____	4 _____
SUM1 _____	SUM2 _____	
SENIOR YEAR	FALL	SPRING
	1 _____	1 _____
	2 _____	2 _____
	3 _____	3 _____
	4 _____	4 _____
SUM1 _____	SUM2 _____	

Biology courses above with a lab component (excluding BI 107/108/116):

1 _____	2 _____	3 _____
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Biology courses above that are 300+:

1 _____	2 _____	3 _____
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Advisor Name: _____

Advisor Signature: _____

Notes/Comments: _____

BIOLOGY COURSES BY SEMESTER

Note: Semester offerings may change. See the [Course Directory](#) and [StudentLink](#) for updated info. Courses cross-listed with those below are accepted.

Fall Semester Courses

Introductory Courses

BI 107 Biology 1

Breadth Courses

BI 310 Human Structure & Function ◆
 BI 315 Systems Physiology ◆
 BI 325 Princ. of Neurosci.
 BI 448 Biodiv. and Conservation

ECB Electives

BI 225 Behavioral Biology
 BI 305 Plant Biology ◆
 BI 306 Bio. of Global Change ◆
 BI 309 Evolution
 BI 333 Human Population Genetics ❖
 BI 407 Animal Behavior ◆
 BI 443 Terrestrial Biogeochemistry

BI 510 Inst. Racism in Health&Science
 BI 513 Genetics Lab ◆
 BI 515 Population Genetics ❖
 BI 523 Marine Urban Ecology ◆(MS)
 BI 531 Ichthyology ◆(MS)
 BI 539 Coral Reef Dynamics ◆(MS)
 BI 541 Coral Reef Restoration ◆(MS)
 BI 546 Marine Megafaunal Ecology ◆(MS)
 BI 548 Marine Microbial Ecology ◆(MS)
 BI 558 Coastal Biogeochemistry ◆(MS)
 BI 569 Trop. Marine Invertebrates ◆(MS)
 BI 578 Marine Geo. Info. Science ◆ (MS)
 BI 588 Proj. Design&Stats. in Bio. Anthro. ❖
 BI 591 Bio-Optical Oceanography ◆❖(MS)
 BI 593 Marine Phys. and Clim. Change ◆ (MS)

Spring Semester Courses

Introductory Courses

BI 108 Biology 2
 BI 116 Biology 2 with ISE Lab

Foundation Courses

BI 206 Genetics
 BI 216 Intensive Genetics
 BI 303 Ecology ◆

Breadth Courses

BI 315 Systems Physiology ◆
 BI 325 Principles of Neuroscience

ECB Electives

BI 225 Behavioral Biology
 BI 260 Marine Biology
 BI 302 Vertebrate Zoology ◆
 BI 306 Bio. of Global Change ◆

BI 411 Microbiome
 BI 413 Microbial Ecology
 BI 414 Ornithology ❖
 BI 423 Marine Biogeochemistry
 BI 475 Urban Ecology^
 BI 500 Shark Biology & Conservation
 BI 506 Phenotypic Plasticity ❖
 BI 508 Behavioral Ecology
 BI 509 Metapopulation Ecology ❖
 BI 510 Inst. Racism in Health&Science
 BI 519 Theor. Evol. Ecology ◆❖
 BI 530 Forest Ecology
 BI 542 Neuroethology
 BI 550 Marine Genomics ◆
 BI 586 Ecological Genomics ◆❖

- ◆ Course will count toward the requirement for 3 lab courses.
- ❖ Course typically offered every other year.
- ^ EE 101 is a prerequisite for BI 307 and BI 475.
- (IRR) Course offered irregularly.
- (MS) Course offered in Marine Semester (application required).

CHEMISTRY REQUIREMENTS

Choose a track.

Standard Track (Recommended)

General Chemistry: Choose one sequence. Organic Chemistry: Choose one course.

Sequence I	Sequence II	Sequence III	
CH 101	CH 109	CH 111	CH 203
CH 102/ CH 116	CH 110	CH 112	CH 211

Note: Pre-health students may need additional courses including CH 204 (or 212 or 214) and biochemistry BI/CH 421 or CH 373.

Alternative Track (Not acceptable for most pre-health careers)

General Chemistry: Choose one sequence. Organic Chemistry: Choose one course.

Sequence I	Sequence II	
CH 171	General Chemistry Sequence from Standard Track (2 courses)	CH 172* CH 174

*Includes biochemistry content.

MATH & COMPUTER SCIENCE REQUIREMENTS

Choose two courses from the lists below. At least one course must be calculus or statistics.

Calculus	Statistics	Computer Science
MA 121 or 123	MA 115 or 213	CS 105
MA 122 or 124	MA 116 or 214	CS 108
MA 127 or 129	CDS DS 100	CS 111
MA 196		CDS DS 110

PHYSICS REQUIREMENTS

Choose one sequence.

PY 105 and PY 106	PY 211 and PY 212
PY 211 and PY 106	PY 241 and PY 242

NON-DEPARTMENTAL COURSES

A maximum of two of the following courses can be used as ECB electives:

AN 331 Human Origins EE 365 Intro. to Geo. Info. Systems (GIS)
 AN 335 The Ape Within EE 504 Physical Climatology
 AN 336 Primate Evolutionary Ecology EE 525 Plant Physiological Ecology
 AN 339 Primate Biomechanics MR 529 Tropical Marine Fisheries (MS)
 AN 552 Primate Evolution & Anatomy
 EE 302 Remote Sensing of Environ.
 EE 310 Climate and the Environment

OPTIONAL PROGRAMS (Application Required)

Undergraduate Research

BI 140/141 Undergraduate Research in Biology 1 (2 cr)
 BI 240/241 Undergraduate Research in Biology 2 (2 cr)
 BI 340/341 Undergraduate Research in Biology 3 (2 cr)
 BI 350-352 Undergraduate Research in Biology 3 (4 cr ◆)
 BI 450-453 Undergraduate Research in Biology 4 (4 cr ◆)

BI 401/402 Honors Research in Biology (4 cr ◆)
 BI 497/498 Honors Research in Biology Seminar (2 cr)

- Up to two of the above 4-credit research courses can count as electives; one of those can apply towards the three-lab requirement.
- For more info. visit www.bu.edu/biology/undergrad/research/

Science Abroad - Madrid, Spain and Grenoble, France

- Offered in the fall semester; courses taught in English.
- Targeted to sophomores in science majors/pre-med students.
- For more information, visit: www.bu.edu/abroad

Marine Semester (MS) BI Courses ◆

- For more information, visit: www.bu.edu/bump/marine-semester/