Specialization in Ecology & Conservation 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
		(If on standard track)

MATH & COMPUTER SCIENCE COURSES

See Math & Computer Science Requirements on SIDE II.

1	2

PHYSICS COURSES

See Physics Requirements on SIDE II.

1	2	

GENERAL EDUCATION REQUIREMENTS

For more details visit the CAS Degree Overview page.

CAS 2 nd Language Requirement: _
Proficiency through the fourth semester:

BU Hub Units: PLM IIC FYW **CRT** SI1 QR1 **SO1** QR2 GCI WRI **RIL AEX** SI2/ **ETR** WIN **TWC** HCO SO₂ OSC CRI

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IV

	FALL	SPRING
FIRST YEAR	1	1
	2	2
	3	3
RST	4	4
正	SUM1	SUM2
~	FALL	SPRING
EAF	1	1
ΕY	2	2
OR	3	3
<u> </u>	4	4
SOPHOMORE YEAR	SUM1	SUM2
JUNIOR YEAR	FALL	SPRING
	1	1
	2	2
	3	3
	4	4
	SUM1	SUM2
	FALL	SPRING
~	1	1
EAF	2	2
SENIOR YEAR	3	3
	4	4
SE	SUM1	SUM2

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

	2	3	
Biology course	s above that are 300+	:	
1	2	3	

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.

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Introductory Courses BI 407 Animal Behavior • BI 107 Biology 1 BI 443 Terrestrial Biogeochemistry **Foundation Courses** BI 206 Genetics BI 513 Genetics Lab ◆

BI 448 Biodiv. and Conservation

BI 310 Human Structure & Function ◆ BI 315 Systems Physiology ◆ BI 325 Princ. of Neurosci.

ECB Electives BI 225 Behavioral Biology BI 305 Plant Biology ◆

Breadth Courses

BI 306 Bio. of Global Change ◆

BI 333 Human Population Genetics ❖

BI 510 Inst. Racism in Health&Science

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. ❖

Spring Semester Courses

Introductory Courses BI 309 Evolution BI 108 Biology 2 BI 411 Microbiome

BI 116 Biology 2 with ISE Lab BI 423 Marine Biogeochemistry BI 500 Shark Biology & Conservation

BI 506 Phenotypic Plasticity & **Foundation Courses** BI 508 Behavioral Ecology BI 206 Genetics

BI 216 Intensive Genetics BI 510 Inst. Racism in Health&Science BI 303 Ecology ◆

BI 530 Forest Ecology BI 542 Neuroethology

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 ◆

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:	
	Sequence I	Sequence II	Sequence III	Choose one course.
	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.		ce. Organic Chemistry:
Sequence I	Sequence II	Choose one course.
CH 171	General Chemistry	CH 172*
	Sequence from Standard	I CH 174
	Track (2 courses)	finaludas hiochamistry contant

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 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/