Specialization in Ecology & Conservation Biology

Boston University College of Arts & Sciences Department of Biology

REQUIREMENTS

- ✓ 12 biology courses; 6-7 related chemistry, math/computer science, and physics courses; and 10 additional CAS courses towards the 128 credits needed to graduate.
- ✓ 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.

	CDDING	
	SPRING 1	
	2	
	3	
	4	
11	SUM2	
	SPRING	
	1	
	2	
	3	
	4	
	CUMA	
l 1	SUM2	
	SPRING	
	1	
	2	
	3	
	4	
	•	
11	SUM2	
	SPRING	
	1	
	2	
	3	
	4	
11	SUM2	
l 1	SUM2	
es above with a lab com	nponent (excluding BI 107/108/11	
2	3	
es above that are 300+: 2	: 3	
Advisor Name:		
ture:		
_	ature:	

3/9/2022

WR 150

2

2

WR 100/120

Writing:

Humanities:

Social Sciences:

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 315 Systems Physiology ◆ BI 325/(NE 203 ◆) Princ. of Neurosci.

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 523 Marine Urban Ecology ◆(MS) BI 531 Ichthyology ◆(MS)

BI 539 Coral Reef Dynamics ◆(MS)

BI 310 Human Structure & Function ◆ 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 ◆

BI 448 Biodiv. and Conservation

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 307 Biogeography^ BI 411 Microbiome

BI 413 Microbial Ecology BI 414 Ornithology ❖

BI 423 Marine Biogeochemistry

BI 475 Urban Ecology^

BI 500 Shark Biology & Conservation

BI 504 Advanced Evol. Analysis

BI 506 Phenotypic Plasticity * BI 509 Metapopulation Ecology ❖

BI 510 Inst. Racism in Health&Science

BI 515 Population Genetics ❖ BI 519 Theor. Evol. Ecology ◆❖

BI 530 Forest Ecology

BI 542 Neuroethology BI 550 Marine Genomics ◆

BI 586 Ecological Genomics ◆❖

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.			nce. Organic Chemistry:
	Sequence I	Sequence II	Choose one course.
	CH 171	General Chemistry	CH 172*
		Sequence from Standa	rd CH 174
		Track (2 courses)	*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

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).

NON-DEPARTMENTAL COURSES

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

AN 331 Human Origins AN 335 The Ape Within AN 339 Primate Biomechanics AN 552 Primate Evolution & Anatomy EE 302 Remote Sensing of Environ.

EE 310 Climate and the Environment

EE 365 Intro. to Geo. Info. Systems (GIS) EE 504 Physical Climatology MR 529 Tropical Marine Fisheries (MS)

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

- 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/