Name: _____ **BU ID:** _____

Specialization in Neurobiology

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

☐ BI 107 ☐ BI 108 **or** BI 116

FOUNDATION COURSES

☐ BI 203 **or** BI 213 **or** (BI 218 ◆)
☐ BI 315 ◆
☐ BI 325

◆ Course will count toward the three-lab requirement.

BREADTH REQUIREMENT

Choose one course from the following area of biology. Courses fulfilling the breadth requirement may not also fulfill an elective requirement.

Ecology, Behavior & Evolution (EBE)

☐ BI 225 ☐ BI 303 ◆ ☐ BI 309
☐ BI 260 ☐ BI 306 ◆ ☐ BI 407 ◆

NEUROBIOLOGY ELECTIVES

Three electives must be BI (or BI cross-listed). See **Biology Courses by Semester**, **Additional NB Electives** & **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 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		
	2		
	3		
	4		
		SUM1	SUM2
SOPHOMORE YEAR	1		
	2		
	3		
	4		
		SUM1	SUM2
JUNIOR YEAR	1		
	2		
	3		
	4		
		SUM1	SUM2
SENIOR YEAR	1		
	2		
	3		
	4		
		SUM1	SUM2

Biology courses above with a lab component (excluding BI 107/108/116):
1 _____ 2 _____ 3 _____

Biology courses above that are 300+ level:
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.

Fall Semester Courses

Introductory Courses
BI 107 Biology 1

Foundation Courses
BI 203 Cell Biology
BI 206 Genetics
BI 213 Intensive Cell Biology
BI 218 Cell Biology with ISE Lab ◆
BI 315 Systems Physiology ◆
BI 325 Princ. of Neurosci.

Breadth Courses
BI 225 Behavioral Biology
BI 306 Bio. of Global Change ◆
BI 407 Animal Behavior ◆

Neurobiology Electives
BI 230 Behavioral Endocrinology
BI 310 Human Structure & Function ◆
BI 407 Animal Behavior ◆
BB 421 Biochemistry 1 ◆
BI 445 Cell. & Mol. Neurophysiology ◆
BI 455 Developmental Neurobiology
BI 481 Molecular Bio. of the Neuron
BI 520 Sensory Neurobiology (IRR)
BI 535 Trans. Research in Alzheimer's
BI 545 Neurobio. of Motivated Behav.
BI 551 Stem Cells
BI 552 Molecular Biology 1
BI 561 Proteostasis Bio. Neuro. Disease ◆
BI 589 Neural Impacts on Tumorigenesis
BI 598 Neural Circuits

Spring Semester Courses

Introductory Courses
BI 108 Biology 2
BI 116 Biology 2 with ISE Lab

Foundation Courses
BI 203 Cell Biology
BI 315 Systems Physiology ◆
BI 325 Principles of Neuroscience

Breadth Courses
BI 225 Behavioral Biology
BI 260 Marine Biology
BI 303 Ecology ◆
BI 306 Bio. of Global Change ◆
BI 309 Evolution

Neurobiology Electives
BB 422 Biochemistry 2 ◆
BI 447 Neurotoxins
BI 481 Molecular Bio. of the Neuron
BI 542 Neuroethology
BI 556 Drug Discovery in Neuroscience
BI 599 Physiology of the Synapse (IRR)

◆ Course will count toward the three-lab requirement.
❖ Course typically offered every other year.
(IRR) Course offered irregularly.

ADDITIONAL NEUROBIOLOGY ELECTIVES

CH 373 Principles of Biochemistry
PS/NE 333 Drugs and Behavior
PS 336 Introduction to Cognitive Psychology
PS/NE 337 Memory Systems of the Brain
PS/NE 338 Neuropsychology
PS 339/NE 202 Intro. to Cognitive Neuroscience
NE 456 Neurobiology of Sex and Aggression
PS/NE 528 Human Brain Mapping
PS/NE 530 Neural Models of Memory Function
PS/NE 532 Neurobio. of Motivation, Decision Making and Learning
PS/NE 544 Developmental Neuropsychology
SAR HS 370 Neuroanatomy and Neurophysiology ◊
SAR HS 550 Neural Systems

◊ Course will **NOT** count toward the three-lab requirement.

CHEMISTRY REQUIREMENTS

Choose a track.

☐ **Standard Track (Recommended)**

General Chemistry: Choose one sequence.

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

Organic Chemistry: Choose one course.
☐ CH 203/CH 218
☐ 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.

Sequence I	Sequence II
☐ CH 171	☐ General Chemistry Sequence from Standard Track (2 courses)

Organic Chemistry: Choose one course.
☐ 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 106
☐ PY 211 **and** PY 212
☐ PY 241 **and** PY 242

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

ADDITIONAL RESOURCES

www.bu.edu/biology

617.353.2432

Contact your assigned advisor for more information.

Please note: The Bulletin is the authority on all requirements and policies. For official tracking of your academic progress, visit https://degree-advice.bu.edu

SIDE II