Name: _____ **BU ID:** _____

BA in Biochemistry & Molecular Biology

Boston University College of Arts & Sciences
Program in Biochemistry & Molecular Biology

REQUIREMENTS

- ✓ 128 credits including 18-19 science and math courses; second language proficiency; and 26 Hub units.
- ✓ Of the Core Courses, BMB Electives, and Advanced Lab Elective, five of these courses must be taken at Boston University.
- ✓ A grade of C or higher is required in all courses taken for credit in the major.

FOUNDATION COURSES

Biology
- ☐ BI 108
- ☐ BI 213*
- ☐ BI 216*

Chemistry
- ☐ CH 109*
- ☐ CH 110*
- ☐ CH 203*
- ☐ CH 214*

*Or alternative course(s). See **Foundation Requirements** on SIDE II for alternative course sequences.

CORE COURSES

- ☐ BB 421
- ☐ BB 422
- ☐ BI 552
- ☐ CH 525

BMB ELECTIVES

See **Courses by Semester** and **Undergraduate Research** on SIDE II.

1 _____ 2 _____

ADVANCED LAB ELECTIVE

Select one option.

- ☐ BI 513
- ☐ BB 522
- ☐ CH 524
- ☐ BB 401 **and** 402
- ☐ Any 2 of BB 450-453

See **Undergraduate Research** on SIDE II.

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

		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

Advisor Name: _____

Advisor Signature: _____

Date: _____

Notes/Comments:

COURSES BY SEMESTER

Note: Course offerings are accurate as of 3/18/2026 and are subject to change. Please check the **MyBU** for the most updated semester information. Courses cross-listed with those below are accepted.

Fall Semester Courses

Foundation Courses
BI 203 Cell Biology
BI 206 Genetics
BI 213 Intensive Cell Biology
BI 218 Cell Biology with ISE Lab ◆
CH 101 General Chemistry 1 ◆
CH 102 General Chemistry 2 ◆
CH 109 Gen. & Quant. Chem. ◆
CH 111 Int. Gen. & Quant. Chem. ◆
CH 203 Organic Chemistry ◆
CH 211 Int. Organic Chemistry ◆

Core Courses
BB 421 Biochemistry 1 ◆
BI 552 Molecular Biology 1

◆ Lab course
❖ Course typically offered every other year
(IRR) Course offered irregularly.

Electives
BI 311 General Microbiology ◆
BI 315 Systems Physiology ◆
BI 410 Developmental Biology
BI 445 Cell & Mol. Neurophysiology ◆
BI 455 Developmental Neurobiology
BI 481 Molecular Bio. of the Neuron
BI 510 Inst. Racism in Health&Science
BI 513 Genetics Lab ◆
BI 525 Bio. Neurodegen. Diseases
BI 535 Trans. Research in Alzheimer's
BI 551 Stem Cells
BI 560 Systems Biology
BI 561 Proteostasis Bio. Neuro. Disease ◆
BI 565 Functional Genomics
BI 566 DNA Dynamics in Disease
BI 577 Quant Mol Bio
BI 589 Neural Impacts on Tumorigenesis
GMS BI 751 Biochem. and Cell Bio.
BI 753 Advanced Molecular Bio.
CH 625 Enzymology
CH 626 Epigenetics
CH 634 Metallobiochemistry
CH 721 Special Topics in Biochem.

Spring Semester Courses

Foundation Courses
BI 108 Biology 2 ◆
BI 203 Cell Biology
BI 206 Genetics
BI 216 Intensive Genetics
CH 101 General Chemistry 1 ◆
CH 102 General Chemistry 2 ◆
CH 110 Gen. & Quant. Chem. ◆
CH 112 Int. Gen. & Quant. Chem ◆
CH 201 Quant. Analytic. Ch. Lab ◆
CH 204 Organic Chemistry 2 ◆
CH 212 Int. Organic Chemistry ◆
CH 214 Org. Chem. w/ Qual. ◆
CH 220 Org. Chem. Lab w/ Qual. ◆

Core Courses
BB 422 Biochemistry 2 ◆
CH 525 Physical Biochemistry

Electives
BI 315 Systems Physiology ◆
BI 385 Immunology
BI 411 Microbiome
BI 481 Molecular Bio. of the Neuron
BB 522 Molecular Biology Lab ◆
BI 525 Bio. Neurodegen. Diseases
BI 550 Marine Genomics ◆
BI 553 Molecular Biology 2
BI 559 Quant Microbio
BI 565 Functional Genomics
BI 576 Carcinogenesis
ENG BF 571 Dyn.&Evol. of Bio. Networks
GMS BT 432 Basic Pathology
BI 735 Advanced Cell Biology
CH 524 Chemical Biology Lab ◆
CH 625 Enzymology
CH 634 Metallobiochemistry
CH 648 Contemp. Drug Disc.
CH 721 Spec. Topics in Biochem.
GRS MB 722 Advanced Biochemistry

FOUNDATION REQUIREMENTS

Biology
- ☐ BI 108
- ☐ BI 213 (recommended) **or** BI 203 **or** BI 218
- ☐ BI 216 (recommended) **or** BI 206

Chemistry
Choose one sequence from each category.

General Chemistry
- ☐ CH 109 **and** CH 110 (recommended)
- ☐ CH 111 **and** CH 112
- ☐ CH 101 **and** CH 102 **and** CH 201

Organic Chemistry
- ☐ CH 203^ **and** CH 214 (recommended)
- ☐ CH 211 **and** CH 212
- ☐ CH 203^ **and** CH 204 **and** CH 220

^ Or CH 218

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

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

BB 401 & 402 Honors Research in BMB (4 cr/semester)
BB 497 & 498 Honors Research in BMB Seminar (1 cr/semester)

- A 3.0 BMB GPA is required for Undergraduate Research in BMB and a 3.5 overall and BMB GPA is required for Honors Research in BMB.
- Students can use one semester of four-credit research to fulfill a BMB elective if not using Undergraduate Research or Honors Research for the advanced lab elective.
- A min. of 6 hrs/wk is required for 2-credit research and a min. of 12 hrs/wk is required for 4-credit research in fall/spring.

Visit bu.edu/bmb for specific requirements and applications for Undergraduate 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

- **BMB Website** (www.bu.edu/bmb)
- **BMB Director**, Dr. Celenza, (celenza@bu.edu)
- **Undergraduate Program Specialist** Anne Hildebrand (ahild89@bu.edu 617-353-1878)

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