

A.S. BIOLOGY

Department: Biological Sciences

Total credits: 60**COLLEGE REQUIREMENTS****CREDITS**

- Successful completion of CUNY Tests in Reading and Writing and the COMPASS Math Skills Test with passing examination scores or developmental courses may be required.
- One (1) Writing Intensive course in any discipline from any category below is required. Participation in a Learning Community that includes ENG 1200 or 2400 also satisfies this requirement.
- Two (2) Civic Engagement experiences—satisfied by CE-Certified or CE-Component courses or approved outside activity. Refer to the *Degree Requirements* section of this catalog.

CUNY CORE

Approved Required and Flexible Core courses are listed in the General Education: CUNY Pathways section of this catalog. **When Required or Flexible Core courses are specified for a category, they are required for the major.**

REQUIRED CORE:

ENG 1200	3
ENG 2400	3
Mathematical & Quantitative Reasoning: MAT 1400 √	4
Life and Physical Sciences: BIO 1300 or BIO 1400 or CHM 1100 or CHM 1200	4

FLEXIBLE CORE: ◇

One course from each Group A – E plus an additional course from any Group. **No more than two courses in the same discipline.** 20

A. World Cultures and Global Issues

B. U.S. Experience In Its Diversity

C. Creative Expression

D. Individual & Society

E. Scientific World: MAT 1400 √ or BIO 1300 or BIO 1400 or CHM 1100 or CHM 1200 (if not taken for Required Core)

Plus another course selected from any Group E list above (if not taken for Required or Flexible Core)

DEGREE REQUIREMENTS §

If not taken for the CUNY Required Core or Flexible Core, the following are required:

Analytic Geometry and Pre-Calculus Math (MAT 1400√)	4
General Biology I and II (BIO 1300 and BIO 1400)	8
General Chemistry I and II (CHM 1100 and CHM 1200)	8
Introduction to Computer and Computer Applications (CP 1100) or Applications in Bioinformatics (BIO/CIS 6000)	3 to 4

Plus, choose one of the following options:

BIOLOGY TRANSFER OPTION

Plus any two (2) of the following Biology Laboratory courses:

BIO 2100, 2200, 5000, 5200, 5300, 5800, 5900, or 6500	8
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OR

ALLIED HEALTH TRANSFER OPTION

Human Anatomy and Physiology I and II (BIO 1100 and BIO 1200) 8

ELECTIVES: 10-11 credits sufficient to total 60 credits for the degree.

Suggested elective for Allied Health Transfer Option: Biostatistics (BIO/MAT 9100) 4

Suggested elective for transfer to a Physician Assistant Program: Microbiology in Health and Disease (BIO 5100) 4

§ Consultation with the Department Advisor is required.

√ Refer to course descriptions for pre-requisites, co-requisites and/or pre/co-requisites

◇ This program has a waiver to require particular courses in the Common Core, otherwise more than the minimum credits for the degree may be necessary.

STUDENT LEARNING OUTCOMES

Identify and apply the methods and process of life science

BIO 1100 BIO 1200 BIO 1300 BIO 1400 BIO 2100 BIO 2200 BIO 5000 BIO 5100 BIO 5200
BIO 5300 BIO 5800 BIO 5900 BIO 6500

Demonstrate proficiency in quantitative reasoning as it relates to life science data

BIO 1100 BIO 1300 BIO 1400 BIO 2100 BIO 2200 BIO 5000 BIO 5100 BIO 5900

Demonstrate an understanding of evolution

BIO 1400 BIO 2100 BIO 5300 BIO 6500

Demonstrate an understanding of the relationship between structure and function

BIO 1200 BIO 1300 BIO 1400 BIO 2100 BIO 5000 BIO 5100 BIO 5200 BIO 6500

Demonstrate an understanding of genetics

BIO 1200 BIO 1300 BIO 1400 BIO 2200 BIO 5100 BIO 5800

Demonstrate an understanding of the pathways of energy and matter that maintain a particular environment

BIO 1100 BIO 1300 BIO 1400 BIO 5000 BIO 5200 BIO 5300 BIO 5900 BIO 6500

Demonstrate an understanding of the levels of biological organization and the interactions among these

BIO 1100 BIO 1400 BIO 2100 BIO 2200 BIO 5200 BIO 5300 BIO 6500