

# CAREER CHANGER'S BIOLOGICAL SCIENCES UNDERGRADUATE CERTIFICATE

**Banner Code:** SC-CERB-CCBS

## Academic Advising

Exploratory Hall, Room 1200  
Fairfax Campus

Website: [biology.gmu.edu/academics/degree-programs/](http://biology.gmu.edu/academics/degree-programs/)

Post-baccalaureate students are invited to enroll in this certificate. By completing this certificate, students will be qualified to apply for most graduate programs in the biological sciences including medical, dental, optometry, podiatry, pharmacy, and veterinary schools. However, graduate and professional school undergraduate coursework requirements can vary; it is prudent to check the coursework requirements for each individual school.

This certificate may be pursued on a part-time or full-time basis.

## Admissions & Policies

### Admissions

University-wide admissions policies can be found in the Undergraduate Admissions Policies section of this catalog.

To apply for this program, please complete the George Mason University Admissions Application (<https://www2.gmu.edu/admissions-aid/apply-now>).

Additionally, admission into this certificate requires:

- The desire to pursue a career in biological sciences or the health professions (research, medicine, dentistry, teaching, law etc.);
- A conferred bachelor's degree from a regionally accredited institution with a GPA of 3.00 or higher;
- A completed George Mason University Admissions Application (<https://www2.gmu.edu/admissions-aid/apply-now>) along with a the appropriate application fee; and
- Two sets of official transcripts from each institution attended.

Standardized test scores are not required.

### Policies

For policies governing all undergraduate programs, see AP.5 Undergraduate Policies.

Some courses can be waived if previously taken during undergraduate training. Substitutions will be recommended where appropriate.

### Certificate Fees

In addition to tuition and the usual laboratory and College of Science fees, a fee of \$500 per semester will be assessed to defray the costs of the outside speakers and the additional administrative work associated with this certificate.

## Notes

- Each student must see an advisor in the Department of Biology prior to registration each semester.
- The program will normally take four semesters to complete for a full-time student.
- It is recommended that students interested in healthcare professions do the following:
  - Register for the HEALTHPROFESSIONSADVISOR listserv (<http://prehealth.gmu.edu/listserv>);
  - Attend at least one group advising session conducted by the Health Professions Advisor (<http://prehealth.gmu.edu>); and
  - Consider participating in Health Professions Advising (<http://prehealth.gmu.edu>) activities designed for students in a relevant application cycle

## Requirements

### Certificate Requirements

Total credits: 63-64

Students should refer to the Admissions & Policies tab for specific policies related to this program.

To earn this certificate, a student must pass all of the courses listed below with a grade no lower than 'B-' and achieve a GPA of at least 3.40.

#### Cell Biology, Biostatistics, and Genetics

BIOL 213	Cell Structure and Function (Mason Core)	4
BIOL 214	Biostatistics for Biology Majors	4
BIOL 311	General Genetics	4
Total Credits		12

#### Additional Upper-level Biology

Select three additional 300, 400, or 500-level BIOL courses (with the exception of BIOL 310) in consultation with an academic advisor	12
Total Credits	12

#### General Chemistry

CHEM 211	General Chemistry I (Mason Core)	3
CHEM 213	General Chemistry Laboratory I (Mason Core)	1
CHEM 212	General Chemistry II (Mason Core)	3
CHEM 214	General Chemistry Laboratory II (Mason Core)	1
Total Credits	8	

#### Organic Chemistry and Biochemistry

BIOL 483	General Biochemistry	4
CHEM 313	Organic Chemistry I	3
CHEM 314	Organic Chemistry II	3

CHEM 315	Organic Chemistry Lab I	2
CHEM 318	Organic Chemistry Lab II	2
Total Credits		14

### Physics

PHYS 243	College Physics (Mason Core)	3
PHYS 244	College Physics Lab (Mason Core)	1
PHYS 245	College Physics (Mason Core)	3
PHYS 246	College Physics Lab (Mason Core)	1
Total Credits		8

### Psychology and Sociology

Select 6 credits of psychology and/or sociology courses in consultation with the biology advisor	6
Total Credits	6

### Mathematics

MATH 111	Linear Mathematical Modeling (Mason Core) <sup>1</sup>	3-4
or MATH 113	Analytic Geometry and Calculus I (Mason Core)	
Total Credits		3-4

<sup>1</sup> Calculus is recommended, but not required.

### Career Seminars

These seminars will be organized each semester and will feature outside speakers from a wide variety of biologically-oriented professions.