

# PERSONALIZED MEDICINE GRADUATE CERTIFICATE

**Banner Code:** SC-CERG-PRSM

## Academic Advising

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Science and Technology Campus

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This certificate is based upon a set of core courses that currently support the Biology, MS; the Biosciences, PhD; the Bioinformatics and Computational Biology, MS; and the Bioinformatics and Computational Biology, PhD degree programs. Students completing this certificate will receive the most up-to-date advanced education available in the region. Completion of the certificate will enhance the careers of those students who are already working in this area, and can also serve as a useful intermediate step towards later enrollment in master's or doctoral programs.

Courses are generally offered in the late afternoon or in the evening to accommodate students with full-time employment outside of the university.

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 Graduate 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>).

Prospective students should hold an undergraduate GPA of 3.00 or current employment in clinical or translational research, diagnostics lab, or biological data analysis field.

To be considered for admission, applicants must submit the George Mason University Admissions Application (<https://www2.gmu.edu/admissions-aid/apply-now>), all undergraduate transcript(s), three letters of recommendation, a statement of interest, and GRE general scores or MCAT scores.

### Policies

Students may not enroll initially in any College of Science master's or doctoral program and later transfer into this certificate program.

For policies governing all graduate programs, see AP.6 Graduate Policies.

### Premium Tuition

This certificate charges students a differential tuition rate of \$100 per credit hour, which is added to the standard graduate tuition rate (regardless of in or out of state status).

## Requirements

### Certificate Requirements

Total credits: 15

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

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

### Required Core Courses

Code	Title	Credits
BIOL 562	Personalized Medicine	3
BIOL 572 or BIOL 666	Human Genetics Human Genetics Concepts for Health Care	3
BIOS 743	Genomics, Proteomics, and Bioinformatics	3
Total Credits		9

### Electives

Code	Title	Credits
Select 6 credits from any of these electives:		6
BIOL 553	Advanced Topics in Immunology	
BIOL 566	Cancer Genomics	
BIOL 568	Advanced Topics in Molecular Genetics	
BIOL 575	Selected Topics in Genetics	
BIOL 669	Pathogenic Microbiology	
BIOL 682	Advanced Eukaryotic Cell Biology	
BIOL 695	Seminar in Molecular, Microbial, and Cellular Biology	
BIOS 701	Systems Biology	
BIOS 741	Genomics	
BINF 630	Bioinformatics Methods	
BINF 633	Molecular Biotechnology	
BINF 733	Gene Expression Analysis	
Up to 4 credits of BIOL 693 and/or BINF 796. <sup>1</sup>		
Total Credits		6

<sup>1</sup> Credit for these two courses may only be applied toward the certificate's elective courses if the research topic is relevant to personalized or translational medicine.