BIOINFORMATICS MANAGEMENT, MS

Banner Code: SC-MS-BNFM

Academic Advising

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Science and Technology Campus

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This degree addresses the regional and national need for technically trained managers who will be able to lead teams of bioinformaticians in both the public and private sectors. The degree combines a solid foundation in bioinformatics research, tools, and techniques, with the management skills needed to address the associated legal, ethical, managerial, and business issues. The degree is intended for:

- Students seeking advancement in their current bioinformatics careers that requires an advanced degree in bioinformatics combined with management expertise.
- Students with a general background in biological science or computational methods who are planning to enter the field of bioinformatics as managers and would like to strengthen their bioinformatics and managerial expertise.

Admissions & Policies

Admissions

University-wide admissions policies can be found in the Graduate Admissions Policies (http://catalog.gmu.edu/admissions/graduate-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/).

Eligibility

Applicants should have a bachelor's degree in biology, computer science, or a related field, with a GPA of at least 3.00 in their last 60 credits of study. Applicants should have taken courses in molecular biology, computer science, calculus, physical chemistry, and statistics. Students with deficiencies in one or more of these areas may be required to take additional courses from the undergraduate curriculum.

Application Requirements

To apply, prospective students should submit the George Mason University Admissions Application (https://www2.gmu.edu/admissions-aid/apply-now/), supply official transcripts from each college and graduate institution attended, a current résumé, and an expanded goals statement. Applicants should also include two letters of recommendation. TOEFL or IELTS scores are required of all international applicants.

The GRE is not required for admission into this program.

Policies

For policies governing all graduate programs, see AP.6 Graduate Policies (http://catalog.gmu.edu/policies/academic/graduate-policies/).

Requirements

Degree Requirements

Total credits: 30

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

Bioinformatics Core Courses

Foundational courses in modern biotechnology, tools and methods for bioinformatics analysis, and methods for creating customized bioinformatics tools.

Code	Title	Credits
BINF 530	Introduction to Bioinformatics Methods	3
or BINF 630	Bioinformatics Methods	
BINF 531	Molecular Cell Biology for Bioinformatics	3
or BINF 631	Molecular Cell Biology for Bioinformatics	
BINF 634	Bioinformatics Programming	3
BINF 730	Biological Sequence and Genome Analysis	3
Select one from the following:		3
BINF 633	Molecular Biotechnology	
BINF 650	Introduction to Bioinformatics Database Design	
BINF 702	Biological Data Analysis	
Total Credits		15

Management Core Courses

Foundational courses in management theory related directly to the management of scientific programs and personnel.

Code	Title	Credits
Select 12 credits from the following courses:		12
COS 500	Professional Preparation for STEM Disciplines	
COS 600	Multidisciplinary Problem Solving and Leadership	
EVPP 638	Corporate Environmental Management and Policy	
GBUS 613	Financial Reporting and Decision Making	
GBUS 623	Marketing Management	
GBUS 643	Managerial Finance	
GBUS 653	Organizational Behavior	
GCH 691	Project Management in Public Health	
HAP 713	Project Management in Health Information Technology	
MBA 712	Project Management	

SWE 625	Software Project Management	
Total Credits		12

Capstone Research Project

Focusing on bioinformatics management issues and techniques.

Code	Title	Credits
BINF 798	Research Project	3
Total Credits		3