

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 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 two copies of official transcripts from each college and graduate institution attended, a current résumé, and an expanded goals statement. Applicants should also include three letters of recommendation and official scores obtained on the GRE general exam. The GRE requirement will be waived if the student holds a master's degree from a U.S. institution. TOEFL or IELTS scores are required of all international applicants.

Policies

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

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|--------------------------------|--|---|
| BINF 630 | Bioinformatics Methods | 3 |
| BINF 631 | Molecular Cell Biology for Bioinformatics | 3 |
| BINF 634 | Bioinformatics Programming | 3 |
| BINF 730 | Biological Sequence and Genome Analysis | 3 |
| Select one from the following: | | 3 |
| BINF 633 | Molecular Biotechnology | |
| BINF 636 | Microarray Methodology and Analysis | |
| BINF 650 | Introduction to Bioinformatics Database Design | |

Total Credits 15

Management Core Courses

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

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|----------|--|---|
| MBA 638 | Operations Management | 3 |
| MBA 712 | Project Management | 3 |
| TECM 615 | Decision Making Using Accounting and Financial Data | 3 |
| TECM 640 | Management of Consulting and Technical Professionals | 3 |

Total Credits 12

Capstone Research Project

Focusing on bioinformatics management issues and techniques.

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|---------------|------------------|---|
| BINF 798 | Research Project | 3 |
| Total Credits | | 3 |