BIOMEDICAL INFORMATICS (MS)

Biomedical Informatics (https://med.nyu.edu/research/vilcek-institute-graduate-biomedical-sciences/ms-biomedical-informatics/)

NYSED: 37394 **HEGIS:** 0799.00 **CIP:** 26.1103

Program Description

The MS in biomedical informatics at NYU Langone's Vilcek Institute of Graduate Biomedical Sciences and NYU Grossman School of Medicine is a science, technology, engineering, and mathematics (STEM) program that sharpens students' practical skills in basic science, translational science, and medical research. Our 12-month curriculum, which can be completed on a part-time basis, produces professionals who can solve challenging biomedical problems.

Students pursuing a master's degree in biomedical informatics will learn to create novel computational and quantitative methods and apply them to biomedical research. The vibrant scientific research community at NYU Langone and NYU Grossman School of Medicine offers the chance to work with nationally and internationally recognized faculty researchers (https://med.nyu.edu/research/vilcek-institute-graduate-biomedical-sciences/ms-biomedical-informatics/mentoring-faculty/) in our laboratories, institutes, and departments. Students will also have access to our in-house high-performance computing facility.

The rapidly growing field of bioinformatics has influenced many recent healthcare developments, including new opportunities for personalized medicine. These innovations, along with a recent growth in high-throughput genomics technologies, have created a demand for skilled bioinformatics professionals.

MS Graduate Career Paths

Our graduates are prepared for biomedical informatics and computational biology careers in academic research, the pharmaceutical or biotechnology industry, medical centers, hospitals, and insurance and consulting companies.

Admissions

All applicants to the Graduate School of Arts and Science (GSAS) are required to submit the general application requirements (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc.html), which include:

- Academic Transcripts (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc/academic-transcripts.html)
- Test Scores (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc/test-scores.html) (if required)
- Applicant Statements (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc/statements.html)
- Résumé or Curriculum Vitae
- Letters of Recommendation (https://gsas.nyu.edu/nyu-as/gsas/admissions/arc/letters-of-recommendation.html), and
- A non-refundable application fee (https://gsas.nyu.edu/admissions/arc.html#fee).

Program Requirements

The program requires the completion of 34 credits, comprised of the following:

Course	Title	Credits
Major Requirements		
BMIN-GA 3	Advanced Topics in Biomedical Informatics	2
BMIN-GA 1001	Methods in Quantitative Biology	3
BMIN-GA 1002	Bioinformatics	3
BMIN-GA 1003	Introduction to Healthcare AI	3
BMIN-GA 1004	Machine Learning	3
BMIN-GA 1005	Programming for Data Analysis	2
BMIN-GA 1358	Introduction to Programming	2
BMIN-GA 2002	Practicum I	4
BMIN-GA 2003	BMI Master Practicum II	6
BMIN-GA 2004	Professional Studies in BMI	0
Electives		
Other Elective Credits		6
Total Credits		**34**

Additional Program Requirements

Master's Thesis

Students must complete a master's thesis.

Sample Plan of Study

Course	Title	Credits
1st Semester/Term		
BMIN-GA 3	Advanced Topics in Biomedical Informatics	2
BMIN-GA 1001	Methods in Quantitative Biology	3
BMIN-GA 1002	Bioinformatics	3
BMIN-GA 1003	Introduction to Healthcare AI	3
	Credits	**11**
2nd Semester/Term		
BMIN-GA 1004	Machine Learning	3
BMIN-GA 1005	Programming for Data Analysis	2
BMIN-GA 1358	Introduction to Programming	2
	Credits	**7**
3rd Semester/Term		
BMIN-GA 2002	Practicum I	4
BMIN-GA 2003	BMI Master Practicum II	6
BMIN-GA 2004	Professional Studies in BMI	0
	Credits	**10**
4th Semester/Term		
Elective		3
Elective		3
	Credits	**6**
	Total Credits	**34**

Learning Outcomes

Upon successful completion of the program, graduates will:

1. Learn to create novel computational and quantitative methods and apply them to biomedical research.
2. Help students' further develop practical skills in basic science, translational science, and medical research.

3. Our graduates are prepared for biomedical informatics and computational biology careers in academic research, the pharmaceutical or biotechnology industry, medical centers, hospitals, and insurance and consulting companies.

Policies

NYU Policies

University-wide policies can be found on the New York University Policy pages (https://bulletins.nyu.edu/nyu/policies/).

Graduate School of Arts and Science Policies

Academic Policies for the Graduate School of Arts and Science can be found on the Academic Policies page (https://bulletins.nyu.edu/graduate/arts-science/academic-policies/).