

MASTER OF SCIENCE IN THE FIELD OF BIOINFORMATICS AND MOLECULAR BIOCHEMISTRY

The MS in Bioinformatics and Molecular Biochemistry has a **Biochemistry track** (<https://smhs.gwu.edu/biochemistry/programs/ms-biochemistry>) and a **Bioinformatics track** (<https://smhs.gwu.edu/biochemistry/programs/ms-bioinformatics>). The program provides schedule flexibility (**classes are held in the late afternoons and evenings**), options to choose between **thesis or non-thesis** tracks and between a **1-year or a 2-year program**. It combines a rigorous and up-to-date curriculum with hands-on experience in a myriad of laboratories and research initiatives, and allows students to partially create their own program by offering a diverse elective courses pool. The program includes students coming from many countries, and our graduates have gone on to successfully pursue many career paths. In addition, the Institute of Biomedical Sciences offers a PhD track in Biochemistry and Molecular Genetics.

REQUIREMENTS

The following requirements must be fulfilled:

The general requirements stated under Columbian College of Arts and Sciences, Graduate Programs (<http://bulletin.gwu.edu/arts-sciences/#degreeregulationstext>).

Code	Title	Credits
Required		
BIOC 6221	Proteins, Pathways, and Human Health	
BIOC 6222	Biochemical Genetics and Medicine	
BIOC 6223	Bioinformatics	
BIOC 6227	Biochemistry Seminar (taken twice for a total of 2 credits)	
Required for bioinformatics track		
BIOC 6236	Medical Genomics	
BIOC 6237	Proteomics and Biomarkers	
BIOC 6240	Next Generation Sequencing	
Required for biochemistry track		
BIOC 6224	Molecular Biology and Protein Methods	
BIOC 6260	Analytic Methods for Lipids and Carbohydrates	
Electives and thesis		

Non-thesis option: 13 credits in elective courses.

Thesis option: BIOC 6998, BIOC 6999, and 7 credits in elective courses.

Students who wish to pursue the thesis option should contact the department for details.