

# MASTER OF SCIENCE IN HEALTH SCIENCES IN THE FIELD OF MOLECULAR DIAGNOSTIC SCIENCE

Molecular diagnostic testing uses highly sensitive and specific laboratory techniques to detect and identify biomarkers at the nucleic acid (DNA and RNA) level. Common molecular-based applications include medical diagnosis, establishing prognosis, monitoring the course of disease, and selecting optimal therapies. The master of science in health sciences (MSHS) in molecular diagnostic sciences prepares both MLS certified and non-certified individuals for careers in clinical or public health laboratories, research institutions, law enforcement agencies, as well as biotechnology or pharmaceutical companies.

The proposed curriculum has been designed so that students can complete the entire program in two academic years and offers the flexibility of allowing students to enroll either on a full-time or part-time basis. Furthermore, the program of study provides practical experience to individuals with no previous clinical molecular diagnostic experience in the form of a molecular diagnostics practicum course.

Visit the program website (<https://healthsciencesprograms.gwu.edu/programs/mshs-in-molecular-diagnostic-science-online/>) for additional information.

## ADMISSIONS

Admissions: Fall - August 6  
Deadlines:

Spring - December 6  
Summer - March 15

The application and all supporting documentation (fees, statement of purpose, letters of recommendation, transcripts) must be received by the deadline in order for the application to be reviewed.

Standardized Test Scores: Not required

Recommendations: Two (2) recommendations required:

Prior Academic Records: Transcripts required from all colleges and universities attended, whether or not credit was earned, the program was completed, or the credit appears as transfer credit on another transcript. Transcripts must be forwarded in their original sealed envelopes.

If academic records are in a language other than English, a certified English language translation must be provided in addition to the original transcripts; translations alone will not be accepted.

Official transcripts from institutions outside the U.S. must be accompanied by an official transcript evaluation from an accredited independent evaluating agency. Please be sure you request a detailed evaluation that includes all course titles, credit hours, grades, U.S. degree equivalency, grade-point averages (GPA), and date of degree conferral. Please see the list of acceptable foreign credential evaluation services (<https://www.naces.org/members> (<https://www.naces.org/members/>)).

Statement of Purpose: Please include a 250-500 word essay describing your reasons for undertaking study at the George Washington University, your academic objectives, career development plan, and related qualifications, including collegiate, professional, and community activities, relevant to your program of interest. Include any substantial accomplishments not already mentioned on the application form.

Degree and GPA Requirements: Bachelor's degree in a basic or medical science (e.g., biology, chemistry, microbiology) from a regionally accredited college or university. 3.0 GPA or above on a 4.0 scale

Additional Requirements: Completed courses should include: 3 credits English; 3 credits of college math (algebra, statistics, or higher). Additionally, students must have completed a combination of 30 semester hours or 45 quarter hours of biological, chemical and/or medical science courses with a grade of C or higher that includes the following courses: general biology I and II with hands-on lab; general or inorganic chemistry with hands-on lab. Please be prepared to provide unofficial transcripts to determine program admissibility.

International Applicants: This program is not visa eligible. Permanent residents or those with a valid visa (e.g., work) may apply to perform their rotation in the US. International students may apply without a visa if they have an approved clinical site in their geographic region.

The Health Sciences programs require the following minimum English language test scores for admission:

- Academic IETLS: an overall band score of 7.0 with no individual band score below 6.0; or
- TOEFL: 600 on paper-based, 250 on computer-based, or 100 on Internet-based; or
- Academic PTE: 68

### Supporting Documents not Submitted Online should be Mailed to:

Health Sciences Office of Online Admissions  
851 Trafalgar Court  
Suite 420 West

Maitland, FL 3275

Alternatively, official electronic transcripts can be sent to [acsonline@gwu.edu](mailto:acsonline@gwu.edu)

**Contact for Questions:**

[hsphora@gwu.edu](mailto:hsphora@gwu.edu) ~ 202-994-0384 (phone) ~ 202-994-0870 (fax)

9:00am - 5:00pm, Monday through Friday

## REQUIREMENTS

The following requirements must be fulfilled: 35 credits, including 32 credits in required courses and a 3-credit elective course.

Code	Title	Credits
<b>Required</b>		
HSCI 6263	Biostatistics Translational Research	
MLS 6216	Microbial Pathogenesis	
MLS 6217	Medical Biotechnology	
MLS 6218	Genetics	
MLS 6219	Molecular Biology	
MLS 6158	Advanced Laboratory Management and Operations	
MLS 6166	Molecular Diagnostics Practicum *	
MLS 6242	Molecular Pathology	
MLS 6244	Research Ethics and Integrity	
MLS 6245	Current Topics in Medical Laboratory Science	
MLS 6246	Capstone Project	

**Elective**

One 3-credit MLS or HSCI course selected in consultation with the academic advisor.

\* May be substituted with an elective course for students with current clinical molecular laboratory experience.