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 in molecular diagnostic sciences prepares both MLS certified and noncertified 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, July
Deadlines:
- Spring - November
- Summer - March

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.

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:
- A bachelor’s degree 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 IELTS: an overall band score of 7.0 with no individual band score below 6.0; or
- TOEFL: 600 on paper-based or 100 on Internet-based; or
- Academic PTE: 68

Supporting documents not submitted online should be mailed to:

George Washington University
ATTN: Transcript Processing Center
1415 W 22nd St.
Suite 220
Oak Brook, IL 60523
Alternatively, official electronic transcripts can be sent to transcripts@hsprograms.gwu.edu.

Contact for questions:
hsphora@gwu.edu
202-994-0384 (phone)
202-994-0870 (fax)
Hours: 9 am to 5 pm, Monday through Friday

Requirements

The following requirements must be fulfilled: 36 credits, including 33 credits in required courses and one 3-credit elective course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Required</strong></td>
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<tr>
<td>HSCI 6263</td>
<td>Biostatistics Translational Research</td>
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<tr>
<td>MLS 6216</td>
<td>Microbial Pathogenesis</td>
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<td>MLS 6217</td>
<td>Medical Biotechnology</td>
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<td>MLS 6218</td>
<td>Genetics</td>
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<tr>
<td>MLS 6219</td>
<td>Molecular Biology</td>
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<tr>
<td>MLS 6158</td>
<td>Advanced Laboratory Management and Operations</td>
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<tr>
<td>MLS 6166</td>
<td>Molecular Diagnostics Practicum *</td>
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<tr>
<td>MLS 6242</td>
<td>Molecular Pathology</td>
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<tr>
<td>MLS 6244</td>
<td>Research Ethics and Integrity</td>
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<td>MLS 6245</td>
<td>Current Topics in Medical Laboratory Science</td>
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<tr>
<td>MLS 6246</td>
<td>Capstone Project</td>
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<tr>
<td><strong>Elective</strong></td>
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<tr>
<td>One 3-credit MLS or HSCI course selected in consultation with the academic advisor.</td>
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</tbody>
</table>

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