BACHELOR OF SCIENCE IN HEALTH SCIENCES WITH A MAJOR IN MOLECULAR DIAGNOSTIC SCIENCES

The bachelor of science in health sciences with a major in molecular diagnostic sciences program provides students with the theoretical knowledge and practical skills needed for positions in diagnostic clinical molecular laboratories, public health laboratories, biotechnology companies, government agencies, law enforcement agencies, and research institutes. In addition, students who complete the program are eligible to take the Molecular Biology Board of Certification examination offered by the American Society for Clinical Pathology (ASCP).

This program is offered in hybrid and fully online options.

Visit the program website (https://bls.smhs.gwu.edu/programs/bshs-molecular-diagnostic-sciences/) for more information.

ADMISSIONS

Admission Deadlines

Fall: July 15
Spring: November 15
Summer: March 15

Standardized Test scores:
SAT/ACT optional

Recommendation(s) required
One letter of recommendation from an academic instructor who can strongly attest to your academic ability, and/or an individual who served in a supervisory capacity for you, and who can strongly attest to your work ethic.

Prior academic records
Transcripts are required from all colleges and universities attended (including via dual enrollment), 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. Official transcript may also be sent electronically directly from the institution.

Non-traditional credit sources may be considered on a case-by-case basis (i.e. military coursework, credit-by-exam, and non-college based health programs). Information on transfer credit eligibility may be found in the Bulletin under Regulations (see Transfer Credit/Advanced Standing for Undergraduates), including minimum letter grade requirements.

Statement of Purpose
All applicants are required to submit a 250-500 word essay describing your reasons for undertaking study at the George Washington University. Focus on your academic objectives, career goals and related qualifications, including collegiate, professional, and extra-curricular activities relevant to your program of interest. Include any substantial accomplishments not already mentioned on the application form as well as obstacles you have overcome that influenced your desire to pursue this program of study.

Additional requirements
The program of study consists of a hybrid format offered at VSTC or a fully online format for applicants with MLT certification. Applicants with MLT certification are required to submit verification of national MLT certification, such as ASCP or AMT or has graduated from an accredited MLT program within the past 6 months.

All students must meet Essential Functions requirements, and successfully meet the criminal background check and drug screen requirements (https://smhs.gwu.edu/academics/health-sciences/academics/admissions/background-checks-and-drug-screenings/)

A resumé or curriculum vitae is required.

The minimum acceptable grade is C for coursework to be applied toward an undergraduate degree (grades of C- and below do not transfer to GW SMHS programs).

Prerequisites
At least 45 semester hours of college with a minimum cumulative GPA of 2.7 and science GPA of 2.5 from a regionally accredited institution of higher learning. Students applying under a Guaranteed Admission Agreement must have a cumulative GPA of 2.75. All should include the following coursework:

- English composition (6 credits)
- General Biology with lab (8 credits) Hands on lab required
- General or inorganic chemistry with lab (8 credits) - Hands on lab required
- Microbiology with lab (4 credits) Hands on lab required
Organic chemistry or biochemistry (3 credits)

College mathematics (college algebra, statistics or above—3 credits)

International applicants only

The hybrid and fully online options are not visa eligible. Permanent residents or those with a valid visa (e.g. work), if eligible, may apply to the hybrid program.

International students with an MLT certification may apply to the online program without needing a visa if they have an approved clinical site in their geographic region.

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. For a list of acceptable foreign credential evaluation services, please click here (https://www.naces.org/members.php).

Applicants who are not U.S. citizens are required to submit official test scores for either Test of English as a Foreign Language (TOEFL) or Pearson's Test of English (PTE) Academic or the academic International English Language Testing System (IELTS). The following are the minimum scores for admission consideration: TOEFL: 100 on the Internet-based exam, PTE: overall score of 68, or IELTS: an overall band score of 7.0, with no individual band score below 6.0

International applicants who meet the following conditions may be considered for admission without submitting TOEFL, PTE or IELTS or scores:
The applicant is a citizen of countries where English is the official language (as identified by GW ISO list of Exempt countries) OR; They hold at least a bachelor degree from a country where English is the official language as well as language of instruction OR; They hold at least a bachelor degree from an institution accredited by a U.S. regional accrediting agency.

Supporting documents not submitted online should be mailed to:
Office of Admissions
Health Sciences Programs
The George Washington University
2600 Virginia Avenue
Suite 506
Washington, DC 20037

FOR QUESTIONS CONTACT:
HSPHORA@GWU.EDU
202-994-0384 (PHONE)
9:00AM TO 5:00PM, MONDAY THROUGH FRIDAY

REQUIREMENTS

The following requirements must be fulfilled: 120 credits in required and elective courses; at least 60 of these credits must be taken at GW.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Required prerequisite courses</td>
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<tr>
<td>6 credits of English composition</td>
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<td>8 credits in general biology with laboratory</td>
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<td>3 credits in humanities</td>
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<td>3 credits in quantitative reasoning (college algebra, statistics, or higher)</td>
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<td>6 credits in in social sciences</td>
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<tr>
<td>11 credits in elective courses</td>
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<td></td>
<td>Required and elective courses that may be transferred in or taken at GW</td>
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<tr>
<td>3 credits in biotechnology (HSCI 1106 if taken at GW)</td>
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<td>3 credits in organic chemistry or biochemistry (MLS 3003 if taken at GW)</td>
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<td>4 credits in microbiology w/lab (HSCI 3106 and HSCI 3108 if taken at GW)</td>
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<td>5 credits in elective courses</td>
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<td></td>
<td>Required courses and electives that must be taken at GW</td>
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<tr>
<td>CERT 3005</td>
<td>Current Topics in Biomedical Sciences</td>
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<td>MLS 2007W</td>
<td>Microbes and Society</td>
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<tr>
<td>or HSCI 2112W</td>
<td>Writing in the Health Sciences</td>
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<tr>
<td>or HSCI 4112W</td>
<td>Research and Writing in Health Sciences</td>
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<tr>
<td>MLS 3000</td>
<td>Clinical Laboratory Mathematics</td>
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<tr>
<td>MLS 3001W</td>
<td>Professional Ethics for Medical Laboratory Scientists</td>
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MLS 4141  Immunology and Serology
MLS 4151  Molecular Diagnostics
MLS 4158  Laboratory Management and Operations
MLS 4170  Introduction to Molecular Biology
MLS 4171  Human Genetics
MLS 4172  Molecular Diagnostics Capstone
MLS 4217  Molecular Techniques
MLS 4242  Applications of Molecular Testing
MLS 4266  Molecular Diagnostics Practicum

**Additional required courses for the hybrid program option only onl.**

MLS 4251  Molecular Diagnostics Laboratory
MLS 4252  Applications of Molecular Testing Laboratory

**Electives—hybrid and online program options**

Students pursuing the hybrid option must take 15 credits in HSCI, MLS or CERT elective courses.

Students pursuing the fully online option must take 18 credits in HSCI, MLS or CERT elective courses.

**Optional concentrations**

All students may choose to complete one of the following concentrations. Credits taken in the concentration count toward the elective requirement.

**Microbiology concentration**

MLS 2005  Plagues, Pandemics, and Epidemics
MLS 2007  Microbes and Society (Online option only)

MLS 4116  Clinical Bacteriology I
MLS 4117  Clinical Bacteriology II
MLS 4119  Parasitology, Mycology, and Virology
MLS 4164  Clinical Microbiology Practicum
MLS 4216  Clinical Bacteriology Laboratory (hybrid option only)
MLS 4219  Parasitology, Mycology, and Virology Laboratory (hybrid option only)

**Assisted reproductive technology concentration:**

CERT 3004  Endocrinology for Health Sciences
CERT 4010  Clinical Human Embryology
CERT 4012  Clinical Human Andrology
CERT 4014  Human Reproductive Cryobiology
MLS 3001  Professional Ethics for Medical Laboratory Scientists

**COMBINED PROGRAM**

**Combined program**

- Dual Bachelor of Science in Health Sciences with a major in molecular diagnostic sciences and Master of Science in Health Sciences in the field of clinical microbiology (http://bulletin.gwu.edu/medicine-health-sciences/undergraduate-programs/bshs-molecular-diagnostic-sciences-mshs-clinical-microbiology/)