# **BACHELOR OF SCIENCE IN HEALTH** SCIENCES WITH A MAJOR IN MEDICAL LABORATORY SCIENCE

Medical laboratory science combines medicine, basic sciences, and clinical sciences. Professionals in the field investigate and determine the causes of disease using the latest biomedical instruments and molecular techniques to perform both routine and complex testing.

The bachelor of science in health sciences (BSHS) with a major in medical laboratory science is a degree completion program offered in two formats: online or a hybrid of online and on-campus study.

- BSHS in medical laboratory science—Fully online. The online program is for students who have successfully completed a medical laboratory technician (MLT) program within six months of application and/or are currently board certified MLTs.
- BSHS in medical laboratory science—Hybrid. The hybrid program is for students who have completed at least 45 college credits or who have earned an associate's degree along with the required prerequisite science and general education courses.

#### Second bachelor's degree program

The BSHS with a major in medical laboratory science program is offered in both forms as a second bachelor's degree to students who already hold a baccalaureate degree from a regionally accredited college or university with the required prerequisite and general education coursework. For the online program, students also must have completed a medical laboratory technician (MLT) program and currently be board certified MLTs.

All BSHS in medical laboratory science programs are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) (http://www.naacls.org/).

Visit the program website (https://mls.smhs.gwu.edu/programs/ bshs-medical-laboratory-sciences/) for additional information.

### **ADMISSIONS**

Admission Fall: July 15

**Deadlines** 

Spring: November 15 Summer: March 15

Standardized SAT/ACT optional

test scores:

Recommendation from an academic

instructor who can strongly attest to your academic required 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.

Applicants may receive credit for college-level coursework through International Baccalaureate (IB) or College Board Advanced Placement (AP) examinations. Official score results must be forwarded directly from the College Board.#Please refer to GW Undergraduate Admissions (https:// undergraduate.admissions.gwu.edu/) for information on maximum credits, minimum scores, and GW course equivalents for AP and IB credits.

Non-traditional credit sources may be considered on a case-by-case basis (i.e. military coursework, creditby-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

purpose

Statement of 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

The program of study consists of a hybrid format requirements offered at VSTC ora fully online format for applicants with MLF certification. Applicants with MLT certification are required to submit verification of national (ASCP, AMT, or AAB) MLT certification in order to be considered for the fully online format.

> 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-anddrug-screenings (https://smhs.gwu.edu/academics/ health-sciences/academics/admissions/backgroundchecks-and-drug-screenings/))

A resumé or curriculum vitae is required.

A minimum cumulative GPA of 2.70 and a science

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:

> Prerequisites: A minimum cumulative GPA of 2.70 and a science GPA of 2.5, and at least \*45 semester hours of transferable credit, with a C grade or better (Cgrades and lower do not transfer), from a regionally accredited institution of higher learning, to include the following coursework:

English Composition (6 credits)

Biology (lecture and 'hands-on' lab) (8 credits) Microbiology (lecture and 'hands-on' lab) (4 credits)

Chemistry (lecture and 'hands-on' lab) (8 credits)

College Mathematics (algebra, statistics, or higher - 3 credits)

Humanities (3 credits)\*

Social Sciences (6 credits)

applicants only

International 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, gradepoint 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 #Pearsons #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:#They are 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:

George Washington University

**ATTN: Transcript Processing Center** 1415 W 22<sup>nd</sup> 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: 120 credits, including a minimum of 60 credits in required courses completed at GW and up to 60 transfer credits in courses taken elsewhere and through SMHS Guaranteed Admission Agreements partnerships.

All General Education coursework must be completed prior to enrollment in the program.

Title Code **Credits** 

#### **General Education**

6 credits in English composition

3 credits in quantitative reasoning (college algebra, statistics, or higher)

4 credits in scientific reasoning (microbiology with lab)  $^{1,2}$ 

3 credits in critical thinking in the humanities

6 credits in critical thinking in the social sciences

8 credits in general biology I and II <sup>1,2</sup>

8 credits in chemistry I and II  $^{1,2}$ 

Required courses that may be transferred in or	taken at
GW	

3 credits in organic chemistry or biochemistry <sup>1</sup>

12 elective credits

#### Core courses in the major, which must be taken at GW

Required for both fully online and hybrid options:	
MLS 2007W	Microbes and Society
MLS 3001W	Professional Ethics for Medical Laboratory Scientists
MLS 3000	Clinical Laboratory Mathematics
MLS 4141	Immunology and Serology
MLS 4158	Laboratory Management and Operations
MLS 4145	Clinical Biochemistry I
MLS 4146	Clinical Biochemistry II
MLS 4150	Immunohematology
MLS 4151	Molecular Diagnostics
MLS 4130	Hematology I
MLS 4131	Hematology II
MLS 4116	Clinical Bacteriology I
MLS 4117	Clinical Bacteriology II
MLS 4119	Parasitology, Mycology, and Virology
MLS 4159	Capstone Seminar
Required for the fully online option only:	
MLS 4136	Clinical Experience I
MLS 4137	Clinical Experience II
MLS 4138	Clinical Experience III
MLS 4139	Clinical Experience IV
11 credits in elective courses.	

Required	for the	hybrid	ontion	only:
Required	ioi tiie	TIYDITU	Option	Offig.

MLS 4246	Clinical Biochemistry Laboratory
MLS 4251	Molecular Diagnostics Laboratory
MLS 4230	Hematology Laboratory

MLS 4250 Immunohematology Laboratory
MLS 4219 Parasitology, Mycology, and Virology Laboratory
MLS 4216 Clinical Bacteriology Laboratory
MLS 4160 Blood Bank Practicum
MLS 4161 Clinical Biochemistry Practicum
MLS 4162 Hematology Practicum
MLS 4164 Clinical Microbiology Practicum
MLS 4165 Urinalysis Practicum
MLS 4166 Coagulation Practicum

<sup>&</sup>lt;sup>1</sup>Medical laboratory technicians (MLT) may receive transfer credit for biological sciences, general microbiology, general chemistry, and organic chemistry/biochemistry courses.

# **SECOND BACHELOR'S**

The bachelor of science in health sciences with a major in medical laboratory science program is offered as a second bachelor's degree to students who already hold a baccalaureate degree from a regionally accredited college or university with the required prerequisite and general education coursework.

The following requirements must be fulfilled: 120 credits, including a minimum of 60 credits in required core courses that must be completed at GW and up to 60 transfer credits in courses taken elsewhere.

#### **General education and prerequisite courses**

3 credits in English composition

4 credits in in scientific reasoning (microbiology with lab)  $^{1,2}$ 

3 credits in quantitative reasoning (college algebra, statistics, or higher)

3 credits in critical thinking in the humanities

6 credits in critical thinking in the social sciences

8 credits in biology I and II  $^{1,2}$ 

8 credits in general chemistry I and II  $^{1,2}$ 

# Required and elective courses that may be transferred in or taken at GW

3 credits in organic chemistry or biochemistry <sup>1</sup>

<sup>&</sup>lt;sup>2</sup> Hands-on lab required, online lab is not acceptable.

#### 19 elective credits

Core courses for th	e major that must be taken at GW
Required for both full	y online and hybrid options
MLS 2007W	Microbes and Society
MLS 3001W	Professional Ethics for Medical Laboratory Scientists
MLS 3000	Clinical Laboratory Mathematics
MLS 4141	Immunology and Serology
MLS 4158	Laboratory Management and Operations
MLS 4145	Clinical Biochemistry I
MLS 4146	Clinical Biochemistry II
MLS 4150	Immunohematology
MLS 4151	Molecular Diagnostics
MLS 4130	Hematology I
MLS 4131	Hematology II
MLS 4116	Clinical Bacteriology I
MLS 4117	Clinical Bacteriology II
MLS 4119	Parasitology, Mycology, and Virology
MLS 4159	Capstone Seminar
For fully online option only:	
MLS 4136	Clinical Experience I
MLS 4137	Clinical Experience II
MLS 4138	Clinical Experience III
For hybrid option only	y:
11 credits in elective o	courses selected from the following:
MLS 4139	Clinical Experience IV
MLS 4246	Clinical Biochemistry Laboratory
MLS 4251	Molecular Diagnostics Laboratory
MLS 4230	Hematology Laboratory
MLS 4250	Immunohematology Laboratory
MLS 4219	Parasitology, Mycology, and Virology Laboratory
MLS 4216	Clinical Bacteriology Laboratory

MLS 4160	Blood Bank Practicum
MLS 4161	Clinical Biochemistry Practicum
MLS 4162	Hematology Practicum
MLS 4164	Clinical Microbiology Practicum
MLS 4165	Urinalysis Practicum
MLS 4166	Coagulation Practicum

<sup>&</sup>lt;sup>1</sup>Medical laboratory technicians (MLTs) may receive transfer credit for biological sciences, general microbiology, general chemistry, and organic chemistry/biochemistry courses.

## **COMBINED PROGRAM**

# Combined program

- Dual Bachelor of Science in Health Sciences with a major in medical laboratory sciences and Master of Science in Health Sciences in the field of molecular diagnostic sciences (https://bulletin.gwu.edu/medicine-health-sciences/undergraduate-programs/dual-bshs-mls-mshs-mds/)
- Dual Secondary Bachelor of Science in Health Sciences
  with a major in medical laboratory sciences and Master of
  Science in Health Sciences in the field of molecular diagnostic
  sciences (https://bulletin.gwu.edu/medicine-health-sciences/
  undergraduate-programs/secondary-bshs-medical-laboratoryscience-molecular-diagnostic-sciences/)

<sup>&</sup>lt;sup>2</sup>Hands-on lab required. An online lab is not acceptable.

<sup>&</sup>lt;sup>3</sup>Alternative electives may be selected from any undergraduate CERT, HSCI, or MLS course or those approved by the program director. Advanced standing from eligible transfer credit may also be considered.