# BACHELOR OF SCIENCE IN HEALTH SCIENCES WITH A MAJOR IN MEDICAL LABORATORY SCIENCE (STEM)

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 hybrid 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 (or completed an MLT program within six months of application).

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

This is a STEM designated program.

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

# ADMISSIONS

Admission Deadlines	Fall: July 20
	Spring: December 1
	Summer: March 20
Standardize test scores:	dSAT/ACT optional
Recommenc required	aDome(better of recommendation from an academic instructor who can strongly attest to your academic ability, and/or an Individual who served in a

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

Statement of All applicants are required to submit a 250–500

purpose 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 or a fully online format for applicants with MLT certification , MLT work experience, or who have graduated within 6 months of an accredited MLT program. 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 GPA of 2.5  $\,$ 

	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)	
	Students who live outside of the Washington DC Metro Area are required to secure a satisfactory clinical site at the time of admission.	
	Successful completion of a criminal background check and a drug screen through Certiphi Screening, a third-party vendor, are required of all admitted clinical students in their first semester. Students are responsible for fees associated with these screens.	Suppor
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:	George ATTN: T 1415 W Suite 22 Oak Brc
	English Composition (6 credits) Biology (lecture and 'hands-on' lab) (8 credits) Microbiology (lecture and 'hands-on' lab) (4 credits)	Docume to: trans
	Chemistry (lecture and 'hands-on' lab) (8 credits) College Mathematics (algebra, statistics, or higher - 3 credits) Humanities (3 credits)*	<b>Contac</b> hsphora 202-99 Hours: S
	Social Sciences (6 credits)	110013.
International Students:	International students should check with individual programs regarding eligibility for visa sponsorship. Generally, online and hybrid programs are not eligible for student visa sponsorship from GW. This would include transfer students from any other institution with an existing visa.	REQ The folk a minim up to 60
	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	SMHS G All Gene enrollm
	detailed evaluation that includes all course titles, credit hours, grades, U.S. degree equivalency, grade-	Code
	point averages (GPA), and date of degree conferral. For a list of acceptable foreign credential evaluation	Genera
	services, please click here (https://www.naces.org/ members.php).	6 credit 3 credit
	Applicants who are not U.S. citizens are required to submit official test scores for either Test of English	higher)
	as a Foreign Language (TOEFL) or#Pearsons#Test of English (PTE), Academic the academic International	4 credit
	English Language Testing System (IELTS) or the Duolingo English Test (DET). The following are the	3 credit
	minimum scores for admission consideration:#TOEFL: 600 on paper based, 250 on computer-based, or	6 credit
	100 Internet-based, PTE: overall score of 68, IELTS:	8 credit
	an overall band score of 7.0, with no individual band score below 6.0, or DET overall score of 120. *Scores can be no older than 2 years.	8 credit

International applicants who meet the following conditions may be considered for admission without submitting TOEFL, PTE or IELTS or DET 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

Documents may be submitted electronically to: transcripts@hsprograms.gwu.edu.

#### **Contact for questions:**

hsphora@gwu.edu 202-994-0384 (phone) Hours: 9:00 am to 5:00 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.

Code	Title	Credits
General Edu	ucation	
6 credits in Er	nglish composition	
3 credits in q higher)	uantitative reasoning (college algebra, statistics, or	
4 credits in so	cientific reasoning (microbiology with lab) $^{1,2}$	
3 credits in cr	ritical thinking in the humanities	
6 credits in cr	ritical thinking in the social sciences	
8 credits in g	eneral biology I and II <sup>1,2</sup>	
8 credits in ch	hemistry I and II <sup>1,2</sup>	

#### 7 credits in elective courses

7 credits in elective		
Required course GW	es that may be transferred in or taken at	
3 credits in organi	c chemistry or biochemistry <sup>1</sup>	
12 elective credits		
Core courses in t	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 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 fu	Ily online option only:	
MLS 3000	Clinical Laboratory Mathematics	
MLS 4136	Clinical Experience I	
MLS 4137	Clinical Experience II	
MLS 4138	Clinical Experience III	
MLS 4139	Clinical Experience IV	
11 credits in electiv	/e courses.	
Required for the hy	ybrid option only:	
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>1</sup>Medical laboratory technicians (MLT) may receive transfer credit for biological sciences, general microbiology, general chemistry, and organic chemistry/biochemistry courses.

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

# SECONDARY BACHELOR'S

This is a degree completion program offered in fully online and hybrid online and on-campus formats<sup>1</sup>.

The following requirements must be fulfilled: 120 credits, at least 60 of which must be taken at GW.

Code	Title	Credits
General education a	nd prerequisite courses	
3 credits in English com	nposition	
3 credits in critical think	king in the humanities	
6 credits in critical think reasoning in the social	king, quantitative reasoning, or scientific sciences	
8 credits in general bio	logy with lab <sup>2,3</sup>	
8 credits in general che	mistry with lab <sup>2,3</sup>	
3 credits in quantitative college level or above)	e reasoning (algebra or statistics at the	
4 credits in in scientific	reasoning (microbiology with lab) <sup>2,3</sup>	
Required and electiv or taken at GW	ve courses that can be transferred in	
3 credits in organic che	emistry or biochemistry <sup>2</sup>	
22 credits in elective co	burses	
Core courses for the	major that must be taken at GW	

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MLS 2007W	Microbes and Society
MLS 3001W	Professional Ethics for Medical Laboratory Scientists
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 3000	Clinical Laboratory Mathematics
MLS 4136	Clinical Experience I
MLS 4137	Clinical Experience II
MLS 4138	Clinical Experience III
MLS 4139	Clinical Experience IV
11 credits in elective c	ourses.
Required for the hybr	id program option only:
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>1</sup>The fully online program option 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. The hybrid option 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.

<sup>2</sup>Medical laboratory technicians (MLTs) can receive transfer credit for biological sciences, general microbiology, general chemistry, and organic chemistry/biochemistry courses.

<sup>3</sup>Hands-on lab required. An online lab is not acceptable.

<sup>4</sup>Alternative electives can be selected from any undergraduate CERT, HSCI, or MLS courses, or others approved by the program director. Advanced standing from eligible transfer credit may also be considered.

### **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 (http:// bulletin.gwu.edu/medicine-health-sciences/undergraduateprograms/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 (http://bulletin.gwu.edu/medicine-health-sciences/ undergraduate-programs/secondary-bshs-medical-laboratoryscience-molecular-diagnostic-sciences/)