

# BACHELOR OF SCIENCE IN HEALTH SCIENCES WITH A MAJOR IN MEDICAL GENETICS AND MOLECULAR BIOLOGY, MICROBIOLOGY CONCENTRATION

Code	Title	Credits
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The following requirements must be fulfilled: 120 credits, including 45 to 60 transfer credits to satisfy the University General Education and advanced standing requirements; and a minimum of 60 credits taken at GW.

## University General Education Requirement

3 credits in critical thinking in the humanities.

6 credits in critical thinking, quantitative reasoning, or scientific reasoning in the social sciences.

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

6 credits of English composition

A course with an approved oral communication component. This requirement is satisfied by completing CERT 3005 in the required major curriculum.<sup>1</sup>

Writing in the disciplines (WID) coursework satisfied by MLS 3001W and (MLS 2007W or HSCI 2112W or HSCI 4112W) program requirements.<sup>1</sup>

## Program prerequisites

8 credits in general biology I and II with lab

8 credits in general chemistry with lab

3 credits in organic chemistry, clinical chemistry or biochemistry<sup>2</sup>

4 credits in microbiology with lab<sup>2</sup>

3 credits in biotechnology<sup>2</sup>

16 credits in elective and/or additional required courses

## Core requirements for the major that must be taken at GW

CERT 3005	Current Topics in Biomedical Sciences
MLS 3000	Clinical Laboratory Mathematics
MLS 3001W	Professional Ethics for Medical Laboratory Scientists
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

And one course selected from the following:

MLS 2007W	Microbes and Society
HSCI 2112W	Writing in the Health Sciences
HSCI 4112W	Research and Writing in Health Sciences

Additional required courses for the hybrid program option only

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

<sup>1</sup>This requirement is fulfilled at GW post matriculation.

<sup>2</sup>This requirement can be fulfilled with transfer credit or by completing the course at GW.

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## Microbiology concentration requirements

MLS 2005	Plagues, Pandemics, and Epidemics
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 program option only)
MLS 4995	Independent Research in Biomedical Laboratory Science (online program option only)