

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.¹

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

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 biochemistry²

4 credits in microbiology with lab²

3 credits in biotechnology²

16 credits in elective and/or additional required courses

Core requirements for the major that must be taken at GW

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| 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 |

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| 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:

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| 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

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

¹This requirement is fulfilled at GW post matriculation.

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

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Microbiology concentration requirements

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| 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) |