

A.S. Science

ADVANCE Program Milestones

ADVANCE Milestone Requirements: All ADVANCE students must adhere to the following requirements. For Milestones #1-#3, failure to meet these milestones will prevent a student from matriculating to Mason and/or result in termination from ADVANCE. For Milestones #4-#7, failure to meet these milestones may delay matriculation to Mason.

1. Students must complete their NOVA degree within 4 years of being admitted into ADVANCE. Students are highly encouraged to be continuously enrolled at NOVA/Mason to support progress towards degree completion.
2. Students must maintain a minimum 2.5 cumulative GPA at NOVA and must have a minimum 2.5 GPA upon matriculation to Mason.
3. Students who wish to enroll at Mason for the fall semester must apply for NOVA spring graduation by March 1 or summer graduation by June 1. Students who wish to enroll at Mason for the spring semester must apply for NOVA fall graduation by October 1.
4. Students must begin developmental coursework no later than the first semester in ADVANCE at NOVA.
5. Students must take first college-level MTH course and ENG 111 in the semester immediately following the completion of any MDE or EDE courses (excluding summer).
6. In the first 30 credits, students must complete ENG 111 and ENG 112 with a C or better.
7. Students must complete a Mason Core Quantitative Reasoning course equivalent with a C or better no later than one semester before NOVA graduation. Refer to your pathway to select the appropriate MTH course(s).

ADVANCE Program-Specific Requirements: This program is restricted in the number of students that may be accepted. Responsibility for applying to schools of medical laboratory sciences and gaining admission rests with the student; however, guidance is provided by the medical laboratory sciences program director. Admission to medical laboratory sciences schools is selective, so candidates should strive for strong academic standing (2.5 science GPA or higher). Students who fail to gain admission to a NAACLS-approved school are unable to complete this degree program. Such students may transfer to Biology, BA or the Biology, BS without loss of credits.

Application to medical laboratory sciences schools should be initiated about a year before the desired entrance date. This fact, coupled with the large number of required courses in the pre-professional curriculum, makes it imperative that students in the program consult regularly with their Mason advisor. All medical laboratory sciences majors and prospective majors are urged to enroll in MLAB 200 Introduction to Medical Laboratory Science as early as possible. This course provides information on the profession, as well as the educational demands placed on candidates.

NOVA DEGREE REQUIREMENT	Credits	Courses	MASON TRANSFER EQUIVALENT	MASON CORE/DEGREE EQUIVALENT
1 SDV Course	1	SDV 100 College Success Skills OR SDV 101 Orientation to XXX	UNIV 100	General Elective
2 ENG 111	3	ENG 111 College Composition I ¹	ENGH 101	Written Comm
3 ITE 152 or General Education Elective	4	CHM 111 General Chemistry I	CHEM 211-213	Nat Science
4 MTH 167	5	MTH 167 Pre-Calculus with Trigonometry ²	MATH 105	General Elective
5 MTH 263	4	MTH 263 Calculus I	MATH 113	Quantitative
6 ENG 112	3	ENG 112 College Composition II ¹	ENGH XXX	General Elective
7 MTH 264 (MTH 245 allowed)	3-4	MTH 264 Calculus II OR MTH 245 Statistics I	MATH 114 STAT 250	General Elective
8 Science Course #1	4	CHM 112 General Chemistry II	CHEM 212-214	Major
9 Math or Science #1	4	BIO 101 General Biology I	BIOL 103/105	Nat Science

10	Social/Behavioral Sciences #1	3	ECO 201 Principles of Macroeconomics OR ECO 202 Principles of Microeconomics OR GEO 210 People and the Land: An Introduction to Cultural Geography OR HIS 121 United States History to 1877 OR HIS 122 United States History Since 1865 OR PLS 135 U.S. Government and Politics OR PSY 200 Principles of Psychology OR PSY 230 Developmental Psychology OR SOC 200 Introduction to Sociology OR SOC 211 Cultural Anthropology	ECON 104 ECON 103 GGS 103 HIST 121 HIST 122 GOVT 103 PSYC 100 PSYC 211 SOCI 101 ANTH 114	Soc/Behav
11	HIS Course	3	HIS 101 Western Civilizations Pre-1600 CE OR HIS 102 Western Civilizations Post-1600 CE OR HIS 112 World Civilizations Post-1500 CE (<i>recommended</i>)	HIST 101 HIST 102 HIST 125	Global History
12	Humanities/Fine Arts #1	3	ART 100 Art Appreciation OR ART 101 History of Art: Prehistoric to Gothic OR ART 102 History of Art: Renaissance to Modern OR CST 130 Introduction to Theatre OR CST 151 Film Appreciation I OR MUS 121 Music in Society	ARTH 101 ARTH 200 ARTH 201 THR 101 ENGH L372 MUSI 101	Arts
13	Math or Science #2	4	BIOL 214 Biostatistics for Biology Majors	BIOL 214	Major
14	Math or Science #3	4	BIO 206 Cell Biology	BIOL 213	Major
15	Social/Behavioral Sciences #2	3	GEO 220 World Regional Geography OR PLS 140 Introduction to Comparative Politics OR PLS 241 Introduction to International Relations	GGG 101 GOVT 133 GOVT 132	Global Understanding
16	CST Course	3	CST 100 Principles of Public Speaking OR CST 110 Introduction to Human Communication	COMM 100 COMM 101	Oral Comm
17	Humanities/Fine Arts #2	3	ENG 225 Reading Literature: Culture and Ideas OR ENG 245 British Literature OR ENG 246 American Literature OR ENG 255 World Literature OR ENG 258 African American Literature OR ENG 275 Women in Literature OR Any 200-Level ENG Literature course ³	ENGH 202 or FRLN L330 (ENG 255 only)	Literature
18	Science Course #2	4	BIO 256 General Genetics ⁴	BIOL L311	Major

A.S. SCIENCE DEGREE TOTAL 61-62

For academic policies and procedures, please see NOVA catalog - <http://www.nvcc.edu/catalog/index.html>

B.S. Medical Laboratory Science

Students must complete the requirements outlined below, choosing one Professional Study/Concentration option: Generalist; Molecular Biology; Microbiology; Histotechnology

Not choosing a concentration ("Professional Study: Generalist Option") will provide students generalist training. Upon graduation, the board certification test may be taken and would allow graduates to practice in any area of a hospital or laboratory. Choosing a concentration will allow students to complete their clinical rotations in that specific area. Upon graduation, the Molecular Biology or Microbiology (depending upon the concentration chosen) board certification test may be taken.

	MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT
19	MLAB and BIOL Additional Courses	1	MLAB 200 Introduction to Medical Laboratory Science	Major
20	Gen Ed: Information Technology	3	CDS 130 Computing for Scientists	Info Tech
21	MLAB and BIOL Additional Courses	4	BIOL 305 Biology of Microorganisms AND BIOL 306 Biology of Microorganisms Laboratory	Major
22	Chemistry	5	CHEM 313 Organic Chemistry I AND CHEM 315 Organic Chemistry Lab I	Major
23	Gen Ed: Written Communication (Upper-level)	3	ENGH 302 Advanced Composition	Written Comm

24	MLAB and BIOL Additional Courses	4	BIOL 430 Advanced Human Anatomy and Physiology I ⁵	Major
25	Chemistry	4-5	CHEM 314 Organic Chemistry II AND CHEM 318 Organic Chemistry Lab II OR BIOL 483 Biochemistry	Major
26	MLAB and BIOL Additional Courses	2	MLAB 300 Science Writing	Writing Intensive
27	Gen Ed: Synthesis	3	Approved Synthesis Course ⁶	Synthesis
28	MLAB and BIOL Additional Courses	4	BIOL 431 Advanced Human Anatomy and Physiology II ⁵	Major
29	MLAB and BIOL Additional Courses	4	BIOL 452 Immunology AND BIOL 453 Immunology Laboratory	Major
30	Professional Study: Concentration	12	Approved Professional Study course (See: Advisor) ⁷	Major
31	Professional Study: Concentration	12	Approved Professional Study course (See: Advisor) ⁷	Major
32	Professional Study: Concentration	3	Approved Professional Study course (See: Advisor) ⁷	Major
33	Professional Study: Concentration	3	Approved Professional Study course (See: Advisor) ⁷	Major

**B.S. MED LAB SCIENCE
DEGREE TOTAL**

128-130

Denotes a course that must be taken at George Mason University while attending NOVA. Failure to complete your co-enrollment course(s) while attending NOVA can significantly affect your timeline for Mason graduation. Please see your ADVANCE Coach for more information and to enroll.

Important Academic Information:

¹Students who complete ENG 111 after Spring 2024 will earn ENGH elective for ENG 111 and ENGH 101 for ENG 112.

²Students who are placed directly into MTH 263 may take PHY 201 instead of MTH 167.

³200-level ENG literature classes include: ENG 225, ENG 230, ENG 236, ENG 237, ENG 245, ENG 246, ENG 250, ENG 255, ENG 256, ENG 257, ENG 258, ENG 271, ENG 275, and ENG 279.

⁴Students may need permission to register for BIO 256. Please contact your ADVANCE Coach if you have any questions.

⁵Students may substitute lower-level BIOL 124 and BIOL 125 for the upper level BIOL 430 and BIOL 431 requirement, although this may have implications if a student later changes majors. Students should contact their Mason advisor to discuss this option before selecting BIOL 124 and BIOL 125.

⁶For approved Mason Core courses, please visit - <https://catalog.gmu.edu/mason-core/>

⁷For approved Professional Study concentration courses, please visit: <https://catalog.gmu.edu/colleges-schools/science/biology/medical-laboratory-science-bs/#requirementstext>

Additional General Notes & Resources:

- This program requires the equivalent of three years of full-time pre-professional study at the college level preceding a senior year of professional education in an affiliated school of medical laboratory science. All affiliated schools (see below) are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS):

- Students must complete MLAB 200 Introduction to Medical Laboratory Science and present their biology coursework and supporting requirements with a minimum GPA of 2.00.

- A grade of 'C' or better must be earned in BIOL 213 Cell Structure and Function (Mason Core) in order to advance to other major requirements. Students may repeat BIOL 213 Cell Structure and Function (Mason Core) once and a second time only with permission of the Department of Biology.

- Medical laboratory science majors must earn a minimum of 'C' in all biology core courses.

- Senior Year: Students should be aware that the senior year spent off campus requires the following special interpretation of university policies. Transfer students must present at least 16 credits of 300 to 400-level biology or chemistry coursework taken at Mason. Students may present no more than 6 credits of 'D' grades in biology and chemistry courses required in three years of pre-professional study. No unsatisfactory grades may be presented for courses in the senior year of professional study. Transfer students entering with more than 45 transfer credits are often unable to complete the pre-professional phase of their program in the usual three years of full-time study. Senior students are registered at the university through special procedures. For details, consult the program director.

- Students who complete a VCCS transfer associate degree (AS, AA, & AFA) will receive a waiver of the Foundation and Exploration (lower division) Mason Core general education categories. To be eligible for the waiver, the students must provide the Mason Office of Admissions with a final, official transcript reflecting the degree conferral date. As a prerequisite for ENGH 302, ENGH 101 is not waived. Students must complete ENGH 100 or ENGH 101, or an equivalent, with a C or higher.

- For academic policies and procedures, please see Mason catalog - <https://catalog.gmu.edu/policies/>

- Students seeking a bachelor's degree must apply at least 45 credits of upper-level courses (numbered 300 or above) toward graduation.