

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-#6, 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 graduation by March 1 for spring graduation or June 1 for summer graduation. Students who wish to enroll at Mason for the spring semester must apply for NOVA graduation by October 1 for winter graduation.
4. Students must begin developmental coursework in 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:
 - a. Complete ENG 111 and ENG 112 with a C or better.
 - b. Complete the first college-level MTH course with a C or better.

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	ENGH 101	Written Comm
3	ITE 115 or ITE 119 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 ¹	MATH 105	General Elective
5	MTH 263	4	MTH 263 Calculus I	MATH 113	Quantitative
6	ENG 112	3	ENG 112 College Composition II	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	Social/Behavioral Sciences #1	3	ECO 201 Principles of Macroeconomics OR	ECON 104	Soc/Behav
			ECO 202 Principles of Microeconomics OR	ECON 103	
			GEO 210 Introduction to Cultural Geography OR	GGG 103	
			HIS 121 United States History I OR	HIST 121	
			HIS 122 United States History II OR	HIST 122	
			PLS 135 American National Politics OR	GOVT 103	
			PSY 200 Principles of Psychology OR	PSYC 100	
			PSY 230 Developmental Psychology OR	PSYC 211	
			SOC 200 Principles of Sociology OR	SOCI 101	
			SOC 211 Principles of Anthropology I	ANTH 114	
10	HIS Course	3	HIS 101 History of Western Civilization I OR	HIST 101	Western Civ
			HIS 102 History of Western Civilization II OR	HIST 102	
			HIS 112 History of World Civilization II	HIST 125	
11	Humanities/Fine Arts #1	3	ART 100 Art Appreciation OR	ARTH 101	Arts
			ART 101 History and Appreciation of Art I OR	ARTH 200	
			ART 102 History and Appreciation of Art II OR	ARTH 201	
			CST 130 Introduction to Theatre OR	THR 101	
			CST 151 Film Appreciation I OR	ENGH L372	
			MUS 121 Music Appreciation I	MUSI 101	
12	Math or Science #1	4	BIO 101 General Biology I	BIOL 103/105	Nat Science
13	Math or Science #2	4	BIOL 214 Biostatistics for Biology Majors	BIOL 214	Major
14	Social/Behavioral Sciences #2	3	GEO 220 World Regional Geography OR	GGG 101	Global
			PLS 140 Introduction to Comparative Politics OR	GOVT 133	
			PLS 241 International Relations I	GOVT 132	
15	CST Course	3	CST 100 Principles of Public Speaking OR	COMM 100	Oral Comm
			CST 110 Introduction to Communication	COMM 101	
16	Humanities/Fine Arts #2	3	ENG 236 Introduction to the Short Story OR	ENGH 202	Literature
			ENG 241 Survey of American Literature I OR		
			ENG 242 Survey of American Literature II OR		
			ENG 251 Survey of World Literature I OR		
			ENG 252 Survey of World Literature II OR		
			ENG 253 Survey of African-American Literature I		
17	Math or Science #3	4	BIO 206 Cell Biology	BIOL 213	Major
18	Science Course #2	4	BIO 205 General Microbiology	BIOL L305/L306	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 311 General Genetics	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 ²	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 ³	Synthesis
28	MLAB and BIOL Additional Courses	4	BIOL 431 Advanced Human Anatomy and Physiology II ²	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) ⁴	Major
31	Professional Study: Concentration	12	Approved Professional Study course (See: Advisor) ⁴	Major
32	Professional Study: Concentration	3	Approved Professional Study course (See: Advisor) ⁴	Major
33	Professional Study: Concentration	3	Approved Professional Study course (See: Advisor) ⁴	Major

B.S. MED LAB SCIENCE

129-130

DEGREE TOTAL

Denotes a course that must be taken at George Mason University. Please see your Success Coach to enroll.

Important Academic Information:

¹Students who are placed directly into MTH 263 may take PHY 201 instead of MTH 167.

²Students 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.

³For approved Mason Core courses, please visit - <https://catalog.gmu.edu/mason-core/>

⁴For approved Professional Study concentration courses, please visit: <https://catalog.gmu.edu/colleges-schools/science/biology/medical-laboratory-science-bs/#requirements-text>

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):
 1. 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.
 2. 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.
 3. 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.
- ADVANCE students who earn at least a 2.85 cumulative GPA and no more than 9 credits of unrepeatable D/F grades may be eligible to receive a waiver for any lower-level Mason Core courses not already completed. To be eligible for the core waiver, students must also complete the requirements of the AA or AS degree listed on their pathway, and apply to graduate from NOVA by the deadline (see milestone #3). Students must meet these criteria by the time of matriculation to Mason and provide the Office of Admissions a final, official transcript reflecting the degree conferral date.
- 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.