ADVANCE
A NOVA | GEORGE MASON PARTNERSHIP

NOVA Northern Virginia Community College | GEORGE MASON UNIVERSITY

A.S. Biology / B.S. Biology Pathway
2026-2027

A.S. Biology

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 George Mason University and/or result in termination from ADVANCE. For Milestones #4-#7, failure to meet these milestones may delay matriculation to George Mason.

1. Students must graduate with the NOVA degree aligned with their ADVANCE academic pathway within 4 years of being admitted into ADVANCE. Students must ensure they are enrolled in the matching degree.

2. Students must maintain a minimum 2.5 cumulative GPA at NOVA and must have a minimum 2.5 GPA upon matriculation to George Mason.

3. Students who wish to enroll at George 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 George 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 college level math course with a C or better no later than one semester before NOVA graduation. Refer to your pathway to select the appropriate MTH course(s).

	NOVA DEGREE REQUIREMENT	Credits	Courses	GEORGE MASON TRANSFER EQUIVALENT	GEORGE 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 XXX	General Elective
3	**MTH 167**	5	MTH 167 Pre-Calculus with Trigonometry[1]	MATH 105	General Elective
4	**CHM 111**	4	CHM 111 General Chemistry I	CHEM 211-213	Major
5	**BIO 101**	4	BIO 101 General Biology I	BIOL 103/105	Major & Nat Science
6	**ENG 112**	3	ENG 112 College Composition II	ENGH 101	Written Comm
7	**MTH 263**	4	MTH 263 Calculus I	MATH 113	Major & Quantitative
8	**CHM 112**	4	CHM 112 General Chemistry II	CHEM 212-214	Major & Nat Science
9	**HIS Elective**	3	HIS 101 Western Civilizations Pre-1600 CE **OR** HIS 102 Western Civilizations Post-1600 CE **OR** HIS 112 World Civilizations Post-1500 CE ***(recommended)***	HIST 101T HIST 102T HIST 125	Global History
10	**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
11	**Science Course** ***(NOVA Catalog: MTH 264 or MTH 245 or Physical or Life Science Elective w/ Lab)***	4	PHY 201 General College Physics I	PHYS 243/244	Major
12	**BIO 102**	4	BIO 102 General Biology II	BIOL 102	Major
13	**CST Course**	3	CST 100 Principles of Public Speaking **OR** CST 110 Introduction to Human Communication	COMM 100 COMM 101	Oral Comm

14	**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[2] **OR** PSY 230 Developmental Psychology[2] **OR** SOC 200 Introduction to Sociology[2] **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
15	**BIO 206**	4	BIO 206 Cell Biology	BIOL 213/215	Major
16	**BIO 256 or BIO 270** ***(NOVA Catalog: MTH 264, MTH 245 or Lab Science)***	4	BIO 256 General Genetics **OR** BIO 270 Ecology	BIOL L311/L313 BIOL L308/L338	Major
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	**Physical or Life Science Elective w/ Lab**	4	PHYS 202 General College Physics II	PHYS 245/246	Major
A.S. BIOLOGY DEGREE TOTAL		**63**			

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

B.S. Biology

Optional Concentrations: Bioinformatics; Biopsychology; Biotechnology and Molecular Biology; Environmental and Conservation Biology; Microbiology
NOTE: Concentration selection will affect Biology elective coursework and may require more than the posted total credits. See Academic Advisor to discuss graduation plan.

	GEORGE MASON DEGREE REQUIREMENT	Credits	Course	GEORGE MASON CORE/DEGREE EQUIVALENT
19	**Biology Core Courses**	4	BIOL 214 Biostatistics for Biology Majors	Major
20	**General Elective**	4	General Elective (See: Advisor)	General Elective
21	**Supporting Core Courses**	5	CHEM 313 Organic Chemistry I **AND** CHEM 315 Organic Chemistry Lab I	Major
22	**Gen Ed: Written Communication (Upper-level)**	3	ENGH 302 Advanced Composition	Written Comm
23	**Biology Core Courses**	4	BIOL 308 Foundations of Ecology & Evolution **AND** BIOL 338 Foundations of Ecology and Evolution Lab ***(if BIO 256 is completed at NOVA)*** **OR** BIOL 311 General Genetics **AND** BIOL 313 General Genetics Lab ***(if BIO 270 is completed at NOVA)***	Major
24	**Biology Core Courses**	3	BIOL 400 News & Views	Writing Intensive
25	**Supporting Core Courses**	5	CHEM 314 Organic Chemistry II **AND** CHEM 318 Organic Chemistry Lab II	Major
26	**Supporting Core Courses & Gen Ed: Information Technology**	3	Approved Information Technology[4]	Major & Info Tech
27	**Biology Electives or Concentration Requirements**	4	Biology Electives[5] (Upper Level, See: Advisor)	Major
28	**Biology Electives or Concentration Requirements**	4	Biology Electives with Lab[5] (Upper Level, See: Advisor)	Major

29	**Biology Electives or Concentration Requirements**	4	Biology Electives[5] (Upper Level, See: Advisor)	Major
30	**Biology Electives or Concentration Requirements**	4	Biology Electives with Lab[5] (Upper Level, See: Advisor)	Major
31	**Biology Electives or Concentration Requirements**	4	Biology Electives[5] (Upper Level, See: Advisor)	Major
32	**Gen Ed: Apex**	3	Approved Apex Course[4]	Apex
33	**General Electives**	3	Upper Level General Elective (See: Advisor)	General Elective
B.S. BIOLOGY DEGREE TOTAL		**120**		

Important Academic Information:

1Students may also use MTH 161/162.

2Students planning to pursue a professional clinical program (e.g. Medical school, Dental School, Physical Therapy, etc.) should select PSY 200, PSY 230, or SOC 200 based on the admission requirements of their particular clinical program. See the prerequisite recommendations on the George Mason Prehealth website for more specific information: https://prehealth.gmu.edu/professions/ .

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.

4For approved Mason Core courses, please visit - https://catalog.gmu.edu/mason-core/

5At least 15 credits must be upper division, and at least two of the upper division courses must include a laboratory. Concentration selection may prescribe elective coursework. (See: https://catalog.gmu.edu/colleges-schools/science/biology/biology-bs/#requirementstext)

General Education Waiver Policy and Guidance:

• Students who complete a VCCS transfer associate degree (AS, AA, or AFA) will receive a waiver of the Foundation and Exploration (lower division) Mason Core general education categories, which can be found here: https://catalog.gmu.edu/mason-core/ . To be eligible for the waiver, the students must provide the George 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.

• When a course fulfills a Mason Core requirement **and** a major or college requirement (e.g. Major & Quant), students must complete the course listed on the pathway to fulfill the major/college requirement. Courses that fulfill only Mason Core Foundation and Exploration categories are recommendations. In most pathways, ADVANCE students must complete a Quantitative Reasoning course to matriculate through ADVANCE.

• ADVANCE students must complete the associate degree indicated on their pathway (see the ADVANCE Program Milestones listed above). Students who withdraw from ADVANCE and transfer without the associate degree or UCGS are required to complete each Mason Core general education category.

Additional General Notes & Resources:

• Students interested in Pre-Health Professions (Pre-Med, Pre-Dentistry, Pre-Podiatry, Pre-Optometry, Pre-Veterinary, Pre-Pharmacy, Pre-Physician Assistant, Pre-Occupational Therapy, and Pre-Physical Therapy) are strongly encouraged to meet with the Health Professions Advisor regarding the appropriate prerequisite courses for their field of choice. For more information, please visit: https://prehealth.gmu.edu/

• For academic policies and procedures, please see George 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.