

ADVANCE

A NOVA | MASON PARTNERSHIP

A.S. Biology / B.S. Biology Pathway
2025-2026

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 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 graduate with the NOVA degree aligned with their ADVANCE academic pathway 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 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	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 XXX	General Elective
3	MTH 167	5	MTH 167 Pre-Calculus with Trigonometry ²	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 ¹	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 (<i>recommended</i>)	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 OR BIO 207	4	BIO 102 General Biology II OR BIO 207 General Zoology ³ (<i>students who take BIO 207 must also take BIO 110</i>)	BIOL 102 See Line BIO 110	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 OR PSY 230 Developmental Psychology OR SOC 200 Introduction to Sociology OR SOC 211 Cultural Anthropology	ECON 104 ECON 103 GGG 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	Major
16	BIO 256 or BIO 110 (NOVA Catalog: MTH 264, MTH 245 or Lab Science)	4	BIO 256 General Genetics OR BIO 110 General Botany ³ (<i>students who take BIO 110 must also take BIO 207</i>)	BIOL L311 BIOL L300 and BIOL XXX	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 ⁴	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.

	MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT
19	Biology Core Courses	4	BIOL 214 Biostatistics for Biology Majors	Major
20	Biology Core Courses or General Elective	4	BIOL 102 Introductory Biology I: Survey of Biodiversity and Ecology (<i>if BIO 102 is not completed at NOVA</i>) OR General Elective (<i>if BIO 102 is completed at NOVA</i>)	Major or 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	4-5	BIOL 308 Foundations of Ecology & Evolution (<i>if BIO 102 and BIO 256 are completed at NOVA</i>) OR BIOL 311 General Genetics (<i>if BIO 110 and BIO 207 are completed at NOVA</i>)	Major
24	Writing Intensive	0-3	Only needed if students complete BIO 110/BIO 207 at NOVA or BIOL 300 at Mason: BIOL 400 News & Views OR MLAB 300 Science Writing	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 ⁵	Major & Info Tech
27	Biology Electives or Concentration Requirements	4	Biology Electives ⁶ (Upper-level)	Major

28	Biology Electives or Concentration Requirements	4	Biology Electives with Lab ⁶ (Upper-level)	Major
29	Biology Electives or Concentration Requirements	4	Biology Electives ⁶ (Upper-level)	Major
30	Biology Electives or Concentration Requirements	4	Biology Electives with Lab ⁶ (Upper-level)	Major
31	Biology Electives or Concentration Requirements	4	Biology Electives ⁶ (Upper Level, See: Advisor)	Major
32	Gen Ed: Apex	3	Approved Apex Course ⁵	Apex
33	General Electives	3	Upper Level General Elective (See: Advisor)	General Elective
34	General Electives	0-2	Upper Level General Elective (See: Advisor) <i>(As needed to reach 120 total credits and 45 total upper level credits)</i>	General Elective
B.S. BIOLOGY DEGREE TOTAL 120				

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 may also use MTH 161/162.

³Students taking BIO 110 must complete BIO 207 to earn credit for BIOL L300 and BIOL XXX (elective).

⁴200-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.

⁵For approved Mason Core courses, please visit - <https://catalog.gmu.edu/mason-core/>

⁶At 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 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 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.

