

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 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).

	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	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	Nat Science & Major
5	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	HIST 101 HIST 102 HIST 125	Western Civ
6	ENG 112	3	ENG 112 College Composition II	ENGH XXX	General Elective
7	MTH 263	4	MTH 263 Calculus I	MATH 113	Quantitative
8	CHM 112	4	CHM 112 General Chemistry II	CHEM 212-214	Major
9	BIO 101	4	BIO 101 General Biology I ²	BIOL 103/105	Nat Science
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	MTH 245 or MTH 264 or Lab Science	3-4	MTH 245 Statistics I OR MTH 264 Calculus II OR BIO 256 General Genetics	STAT 250 MATH 114 BIOL L311	General Elective or Major
12	PHY 201 or GOL 105 (NOVA Catalog: BIO 102 or BIO 120)	4	PHY 201 General College Physics I ^{2,3} OR GOL 105 Physical Geology ²	PHYS 243-244 GEOL 101	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 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	Major
16	MTH 245 or Lab Science	4	PHY 201 General College Physics I ³ OR PHY 202 General College Physics II ³ OR GOL 105 Physical Geology OR GOL 106 Historical Geology OR PHY 150 Elements of Astronomy	PHYS 243-244 PHYS 245-246 GEOL 101 GEOL 102/104 ASTR 111-112	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's Literature OR Any 200-Level ENG Literature course ⁴	ENGH 202 or FRLN L330 (ENG 255 only)	Literature
18	Social/Behavioral Sciences #2	3	GEO 220 World Regional Geography OR PLS 140 Introduction to Comparative Politics OR PLS 241 Introduction to International Relations	GGS 101 GOVT 133 GOVT 132	Global

A.S. BIOLOGY DEGREE TOTAL 61-62

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

B.A. Biology

Students may select a concentration in Biological Illustration. See your Mason Biology advisor for more information.

	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	4	BIOL 311 General Genetics OR General Electives (Upper-level See: Advisor) <i>(if BIO 256 is completed at NOVA)</i>	Major
21	College BA Requirement	3	Select additional Upper Level Mason Core Arts, Literature, Global Understanding, or Social and Behavioral Sciences ⁵ <i>(Course must be in a different discipline than selected at NOVA; See: Advisor)</i>	COS BA Requirement
22	College Requirement: Foreign Language	6	Approved foreign language course ⁵ <i>(Students may opt to take a two course, 101/102 sequence if available)</i>	COS Foreign Lang.
23	Biology Core Courses	0-4	BIOL 300 BioDiversity ² <i>(if BIO 110/120 not taken at NOVA)</i>	Major
24	College Requirement: Foreign Language	3	Approved foreign language course ⁵	COS Foreign Lang.
25	Gen Ed: Written Communication (UL)	3	ENGH 302 Advanced Composition	Written Comm
26	Biology Electives	4	Any upper-level BIOL courses with lab	Major
27	Biology Core Courses	5	BIOL 308 Foundations of Ecology & Evolution	Writing Intensive
28	Gen Ed: Synthesis	3	Approved Synthesis Course ⁶	Synthesis
29	College Requirement: Foreign Language	3	Approved foreign language course ⁵	COS Foreign Lang.
30	Biology Electives	4	Any upper-level BIOL courses	Major

31	College BA Requirement	3	Select additional Upper Level Mason Core Arts, Literature, Global Understanding, or Social and Behavioral Sciences ⁵ (<i>Course must be in a different Mason Core category than selected in line 21 and in a different discipline than selected at NOVA; See: Advisor</i>)	COS BA Requirement
32	General Elective	3	General Electives (Upper-level See: Advisor)	General Electives
33	General Elective	3	General Electives (Upper-level See: Advisor)	General Electives
34	General Elective	3	General Electives (Upper-level See: Advisor)	General Electives
35	Gen Ed: Information Technology	3	Approved Info Tech Course (Upper-level) ⁶	Info Tech

B.A. BIOLOGY DEGREE TOTAL 122 - 123

Important Academic Information:

¹Students may also use MTH 161/162.

²Students pursuing the Biology, BA should complete BIO 101 and an additional Natural Science (PHY 201 or GOL 105) in line 12. However, if a student has already taken BIO 110, they should take BIO 110 and BIO 120, which fulfills Mason's BioDiversity (BIOL 300) requirement, and complete the additional Natural Science at Mason. BIOL 300 is replaced by an upper-level general elective at Mason.

³Students intending to pursue a career in a clinical profession (pre-med, pre-physical therapy, pre-dental, etc.) should elect to take PHY 201 and PHYS 202.

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 additional Mason Core courses for the COS College BA Requirement and approved Foreign Language courses, please visit:

<https://catalog.gmu.edu/colleges-schools/science/biology/biology-ba/#requirementstext>

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

Additional General Notes & Resources:

- Students must complete the degree requirements with: A minimum GPA of 2.00 in the BIOL courses listed in the degree program and a minimum GPA of 2.00 in the supporting courses listed in the degree program. Additionally:
 1. Biology majors must earn a minimum grade of 'C' in all of the biology core courses. A grade of 'C' or better must be earned in BIOL 213 Cell Structure and Function (Mason Core) in order to advance to other core requirements.
 2. Students may not count BIOL 124 Human Anatomy and Physiology and/or BIOL 125 Human Anatomy and Physiology toward any biology major requirement.
 3. Students who take BIOL 310 Biodiversity and BIOL 330 Biodiversity Lab and Recitation may not count BIOL 303 Animal Biology and/or BIOL 304 Plant Biology toward any biology major requirement.
 4. BIOL 493 Honors Research in Biology, BIOL 495 Directed Studies in Biology, and BIOL 497 Special Problems in Biology do not satisfy the requirements of the BA degree which state that students must complete at least one upper division course that includes a laboratory. The courses do, however, count as non-laboratory electives.
- 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/>
- Students interested in pursuing licensure to teach at the secondary level may add the Undergraduate Certificate: Secondary Education - Biology to this degree. For more information visit: <https://education.gmu.edu/secondary-education-6-12/academics/>. Some certificate courses can be used to fulfill general elective requirements, but additional credits may be needed to complete the certificate. Students interested in teacher licensure should meet with a Mason pre-teacher advisor. Contact information: <https://cehd.gmu.edu/teacher/advising/advising-appointment/>
- ADVANCE students who earn at least a 2.85 final, 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 Mason 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 provide the Office of Admissions with a final, official transcript reflecting the degree conferral date and a cumulative NOVA GPA at or above 2.85.
- 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.