

A.S. Science / B.S. Biology Pathway **2020-2021**

A.S. Science

ADVANCE Program Milestones

- 1. Students must take SDV 100 or SDV 101 in the first semester at NOVA.
- 2. Students must begin Developmental coursework in the first semester in ADVANCE at NOVA.
- 3. Students must take first college-level MTH course and ENG 111 in the semester immediately following the completion of any MTT or ENF courses (excluding summer).
- 4. 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.
- 5. Students must complete at least six degree-applicable credits with a C or better each fall and spring semester.
- 6. Students must maintain a 2.5 cumulative GPA.
- 7. Students must apply for NOVA graduation and complete their Associate's degree.

| | NOVA DEGREE | | | MASON | MASON |
|----|-------------------------------|---------|--|---|-------------------|
| | | Credits | Courses | TRANSFER | CORE/DEGREE |
| | REQUIREMENT | | | EQUIVALENT | EQUIVALENT |
| 1 | SDV Course | 1 | SDV 100 College Success Skills OR SDV 101 Orientation to XXX | UNIV 100 | Elective |
| 2 | ENG 111 | 3 | ENG 111 College Composition I | ENGH 101 | Written Comm |
| 3 | HIS Elective | 3 | HIS 101 History of Western Civilization I OR HIS 102 History of Western Civilization II OR HIS 112 History of World Civilization II | HIST 101 HIST 102 HIST 125 | Western Civ |
| 4 | MTH 167* | 5 | MTH 167 Pre-Calculus with Trigonometry* | MATH 105 | Elective |
| 5 | ITE 115 or General Education | 4 | CHM 111 General Chemistry I | CHEM 211-213 | Major |
| 6 | ENG 112 | 3 | ENG 112 College Composition II | ENGH XXX | Elective |
| 7 | CST Course | 3 | CST 100 Principles of Public Speaking OR CST 110 Introduction to Communication | COMM 100 COMM 101 | Oral Comm |
| 8 | MTH 263 | 4 | MTH 263 Calculus I | MATH 113 | Quantitative |
| 9 | Social/Behavioral Sciences #1 | 3 | ECO 201 Principles of Macroeconomics OR ECO 202 Principles of Microeconomics OR GEO 210 Introduction to Cultural Geography OR HIS 121 United States History I OR HIS 122 United States History II OR PLS 135 American National Politics OR PLS 211 United States Government I OR PSY 200 Principles of Psychology OR PSY 230 Developmental Psychology OR SOC 200 Principles of Sociology OR SOC 211 Principles of Anthropology I | ECON 104 ECON 103 GGS 103 HIST 121 HIST 122 GOVT 103 GOVT 103 PSYC 100 PSYC 211 SOCI 101 ANTH 114 | Soc/Behav |
| 0 | Science Course #1 | 4 | CHM 112 General Chemistry II | CHEM 212-214 | Major |
| .1 | MTH 264 (MTH 245 allowed) | 4 | MTH 264 Calculus II OR MTH 245 Statistics I | MATH 114 STAT 250 | Elective |
| .2 | Humanities/Fine Arts #1 | 3 | ART 100 Art Appreciation OR ART 101 History and Appreciation of Art I OR ART 102 History and Appreciation of Art II OR CST 130 Introduction to Theatre OR CST 151 Film Appreciation I OR MUS 121 Music Appreciation I | ARTH 101 ARTH 200 ARTH 201 THR 101 ENGH L372 MUSI 101 | Arts |
| 13 | Math or Science #1 | 4 | BIO 101 General Biology I | BIOL 103 | Nat Science |
| .4 | Math or Science #2 | 4-5 | PHY 201 General College Physics I OR PHY 231 General University Physics I | PHYS 243-244 PHYS 160/161/266 | Nat Science |

| .5 Math or Science #3 | 4-5 | PHY 202 General College Physics II OR PHYS 232 General University Physics II | PHYS 245/246 PHYS 260/261/XXX | Major |
|---------------------------------|-----|--|----------------------------------|------------|
| .6 Science Course #2 | 4 | BIO 206 Cell Biology | BIOL 213 | Major |
| | | GEO 220 World Regional Geography OR | GGS 101 | |
| 7 Social/Behavioral Sciences #2 | 3 | PLS 140 Introduction to Comparative Gov't OR | GOVT 133 | Global |
| · | | PLS 241 International Relations I | GOVT 132 | |
| 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 | | |

A.S. SCIENCE DEGREE TOTAL 62-64

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

B.S. Biology

Concentrations: Bioinformatics, Biopsychology, Biotechnology and Molecular Biology, Environmental and Conservation Biology, Microbiology.

NOTE: Concentration selection will effect 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 | 4 | BIOL 311 General Genetics | Major |
| 21 | Chemistry | 5 | CHEM 313 Organic Chemistry I AND CHEM 315 Organic Chemistry Lab I | Major |
| 22 | Gen Ed: Written Communication (UL) | 3 | ENGH 302 Advanced Composition | Written Comm |
| 23 | Biology Core Courses | 4 | BIOL 300 BioDiversity | Major |
| 24 | Chemistry | 5 | CHEM 314 Organic Chemistry II AND CHEM 318 Organic Chemistry Lab II | Major |
| 25 | Biology Core Courses | 5 | BIOL 308 Foundations of Ecology & Evolution | Major |
| 26 | Gen Ed: Synthesis | 3 | Approved Synthesis Course** | Synthesis |
| 27 | Biology Electives or Concentration Requirements | 4 | Biology Electives*** (Upper-level) | Major |
| 28 | Biology Electives or Concentration Requirements | 4 | Biology Electives with Lab*** (Upper-level) | Major |
| 29 | Biology Electives or Concentration Requirements | 4 | Biology Electives*** (Upper-level) | Major |
| 30 | Biology Electives | 3 | Biology Electives*** | Major |
| 31 | Biology Electives or Concentration Requirements | 4 | Biology Electives with Lab** (Upper-level) | Major |
| 32 | Biology Electives or Concentration Requirements | 3 | Biology Electives*** | Major |
| 33 | Gen Ed: Information Technology | 3 | CDS 130 Computing for Scientists | Info Tech |

B.S. BIOLOGY DEGREE TOTAL 120-122

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

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

*Students who are placed directly into MTH 263 may take BIO 102, BIO 110, or BIO 120 instead of MTH 167.

***At least 15 credits must be upper division, an 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)

^{**}For approved Mason Core courses, please visit - https://catalog.gmu.edu/mason-core/

General Note: Some Mason Core requirements may already be fulfilled by the major requirements listed above. Students are strongly encouraged to consult their advisors to ensure they fulfill all remaining Mason Core requirements.

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