

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 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	Elective
2	ENG 111	3	ENG 111 College Composition I	ENGH 101	Written Comm
3	HIS Course	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 263	4	MTH 263 Calculus I	MATH 113	Quantitative
5	MTH 167 or Science	4-5	MTH 167 Pre-Calculus with Trigonometry OR PHY 202 General College Physics II OR PHY 232 General University Physics II <i>(Only take PHY 202/232 at NOVA if placed directly into MTH 263 and MTH 167 is not needed)</i>	MATH 105 PHYS 245-246 PHYS 260-261-XXX	Elective or Major
6	Science Course #1	4-5	PHY 201 General College Physics I OR PHY 231 General University Physics I	PHYS 243-244 PHYS 160-161-266	Major
7	ENG 112	3	ENG 112 College Composition II	ENGH XXX	Elective
8	CST Course	3	CST 100 Principles of Public Speaking OR CST 110 Introduction to Communication	COMM 100 COMM 101	Oral Comm
9	MTH 264	4	MTH 264 Calculus II	MATH 114	Major
10	ITE 115 or General Education	4	CHM 111 General Chemistry I	CHEM 211-213	Nat Science
11	Science Course #2	4	CHM 112 General Chemistry II	CHEM 212-214	Major
12	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	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

14	Math or Science #1	3	CHM 241 Organic Chemistry I-Lecture	CHEM L313	Major
15	Math or Science #2 (with lab below under line #19)	2	CHM 245 Organic Chemistry I - Laboratory	CHEM L315	Major
16	Social/Behavioral Sciences #2	3	GEO 220 World Regional Geography OR HIS 111 History of World Civilization OR PLS 140 Introduction to Comp Govt OR PLS 241 International Relations I OR PSY 219 Cross-Cultural Psychology OR SSC 115 Introduction to Global Affairs	GG5 101 HIST L387 GOVT 133 GOVT 132 PSYC L379 GLOA 101	Global
17	Humanities/Fine Arts #2	3	ENG 236 Introduction to the Short Story OR 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	ENGH 202	Literature
18	Math or Science #3	3	CHM 242 Organic Chemistry II - Lecture	CHEM L314	Major
19	Math or Science #2 (with lab above under line #15)	2	CHM 246 Organic Chemistry II - Laboratory	CHEM L318	Major
20	General Education Elective (Only needed if below 60 total degree credits - Please see your Success Coach)	3-4	BIO 101 General Biology I OR ECO 202 Principles of Microeconomics OR PHI 111 Logic I OR PSY 200 Principles of Psychology OR REL 100 Introduction to the Study of Religion OR SOC 200 Principles of Sociology	BIOL 103 ECON 103 PHIL 173 PSYC 100 RELI 100 SOCI 101	Elective

A.S. SCIENCE DEGREE TOTAL 60-63

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

B.S. Chemistry - Environmental Chemistry Concentration

MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT
21	Physic Course or General Electives	PHYS 245-246 College Physics II OR PHYS 260-261 University Physics II OR General Electives (<i>if Physics sequence is complete</i>) (See: Advisor)	Major
22	Mathematics Courses	MATH 213 Analytical Geometry and Calculus III OR STAT 250 Introductory Statistics I	Major
23	Chemistry Courses	CHEM 321 Elementary Quantitative Analysis	Major
24	Science Core Courses	EVPP 210 Environmental Biology: Molecules and Cells OR BIOL 213 Cell Structure and Function	Major
25	Chemistry Courses	CHEM 331 Physical Chemistry I AND CHEM 336 Physical Chemistry Lab I	Writing Intensive
26	Chemistry Courses	CHEM 427 Aquatic Environmental Chemistry	Major
27	Science Core Courses	GEOL 101 Introductory Geology I	Major
28	Gen Ed: Written Communication (UL)	ENGH 302 Advanced Composition	Written Comm
29	Chemistry Courses	CHEM 332 Physical Chemistry I AND CHEM 337 Physical Chemistry II Lab	Major
30	Chemistry Courses	CHEM 422 Instrumental Methods of Chemical Analysis AND CHEM 423 Instrumental Methods of Chemical Analysis Lab	Major
31	Chemistry Courses	CHEM 438 Atmospheric Chemistry	Major
32	Science Core Courses	GEOL 306 Soil Science	Major
33	Chemistry Courses	Chemistry Elective* (Upper-level)	Major
34	Chemistry Courses	CHEM 441 Properties and Bonding of Inorganic Compounds OR CHEM 446 Bioinorganic Chemistry	Major
35	Supporting Science Electives	Approved Supporting Science Elective**	Major
36	Supporting Science Electives	Approved Supporting Science Elective**	Major
37	Gen Ed: Synthesis	Approved Synthesis Course*** (Upper-level)	Synthesis

38	Gen Ed: Information Technology	3	Approved IT Course***	Info Tech
B.S. CHEMISTRY DEGREE				
TOTAL		120-126		
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/				
*Any Chemistry lecture or research course				
**For approved Supporting Science elective courses, please visit: https://catalog.gmu.edu/colleges-schools/science/chemistry-biochemistry/chemistry-bs/#requirementstext				
***For approved Mason Core courses, please visit - https://catalog.gmu.edu/mason-core/				
General Note: Students majoring in chemistry must complete the chemistry program requirements with a minimum GPA of 2.30 and present no more than two courses with a grade of 'D' (1.00) in CHEM coursework at graduation.				
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.				