

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	Science Course #2	4	CHM 111 General Chemistry I	CHEM 211-213	Nat Science
11	ITE 115 or General Education	4	CHM 112 General Chemistry II	CHEM 212-214	Nat Science
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	ECON 104	Soc/Behav	
			ECO 202 Principles of Microeconomics OR	ECON 103		
			GEO 210 Introduction to Cultural Geography OR	GGS 103		
			HIS 121 United States History I OR	HIST 121		
			HIS 122 United States History II OR	HIST 122		
			PLS 135 American National Politics OR	GOVT 103		
			PLS 211 United States Government I OR	GOVT 103		
			PSY 200 Principles of Psychology OR	PSYC 100		
			PSY 230 Developmental Psychology OR	PSYC 211		
14	Math or Science #1	3	SOC 200 Principles of Sociology OR	SOCI 101	Major	
			SOC 211 Principles of Anthropology I	ANTH 114		
15	Math or Science #2 (with lab below under line #19)	2	CHM 241 Organic Chemistry I-Lecture	CHEM L313	Major	
16	Social/Behavioral Sciences #2	3	CHM 245 Organic Chemistry I - Laboratory	CHEM L315	Major	
			GEO 220 World Regional Geography OR	GGS 101		
			HIS 111 History of World Civilization OR	HIST L387		
			PLS 140 Introduction to Comp Govt OR	GOVT 133		
			PLS 241 International Relations I OR	GOVT 132		
17	Humanities/Fine Arts #2	3	PSY 219 Cross-Cultural Psychology OR	PSYC L379	Global	
			SSC 115 Introduction to Global Affairs	GLOA 101		
			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						
18	Math or Science #3	3	ENG 253 Survey of African-American Literature I			
19	Math or Science #2 (with lab above under line #14)	2	CHM 242 Organic Chemistry II - Lecture	CHEM L314	Major	
			CHM 246 Organic Chemistry II - Laboratory	CHEM L318	Major	
20	General Education Elective (Only needed if below 60 credits - Please see your Success Coach)	3-4	BIO 101 General Biology I OR	BIOL 103		
			ECO 202 Principles of Microeconomics OR	ECON 103		
			PHI 111 Logic I OR	PHIL 173		
			PSY 200 Principles of Psychology OR	PSYC 100		
			REL 100 Introduction to the Study of Religion OR	RELI 100		
			SOC 200 Principles of Sociology	SOCI 101		

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 - Biochemistry Concentration

MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT	
21	Biology Courses	4	BIOL 213 Cell Structure & Function	Major
22	General Electives	3	General Electives (See: Advisor) (Upper-level)	Major
23	Physics Requirement OR General Electives	3-4	PHYS 245-246 College Physics II OR	Major
			PHYS 260-261 University Physics II OR General Electives (if Physics sequence is complete) (See: Advisor)	
24	Chemistry Courses	4	CHEM 321 Elementary Quantitative Analysis	Major
25	Chemistry Courses	5	CHEM 331 Physical Chemistry I AND	Writing Intensive
			CHEM 336 Physical Chemistry Lab I	
26	Chemistry Courses	4	CHEM 463 General Biochemistry I	Major
27	Gen Ed: Written Communication (UL)	3	ENGH 302 Advanced Composition	Written Comm
28	Chemistry Courses	5	CHEM 464 General Biochemistry II AND	Major
			CHEM 465 Biochemistry Lab	
29	Biology Courses	4	BIOL 305 Biology of Microorganisms AND	Major
			BIOL 306 Biology of Microorganisms Laboratory	
30	General Electives	3	General Electives (See: Advisor) (Upper-level)	Major

31	Approved Science Electives	3	CHEM/BIOI Elective*	Major
32	Chemistry Courses	3	CHEM 446 Bioinorganic Chemistry	Major
33	Approved Science Electives	3	CHEM/BIOI Elective*	Major
34	Approved Science Electives	3	CHEM/BIOI Elective*	Major
35	Gen Ed: Synthesis	3	Approved Synthesis Course**	Synthesis
36	Gen Ed: Information Technology	3	Approved IT Course**	Info Tech
37	General Electives	2-4	General Electives (See: Advisor)	Major

B.S. CHEMISTRY DEGREE **120-121**
TOTAL

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/>

*CHEM or BIOI courses numbered 302-499. Other science or math courses may be approved as electives per prior approval of the coordinator.

**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.