

# ADVANCE

A NOVA | MASON PARTNERSHIP

A.S. Science/ B.S. Chemistry - No  
Concentration Pathway  
**2020-2021**

## A.S. Science

### ADVANCE Program Milestones

- Students must take SDV 100 or SDV 101 in the first semester at NOVA.
- Students must begin Developmental coursework in the first semester in ADVANCE at NOVA.
- 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).
- In the first 30 credits, students must:
  - Complete ENG 111 and ENG 112 with a C or better.
  - Complete the first college-level MTH course with a C or better.
- Students must complete at least six degree-applicable credits with a C or better each fall and spring semester.
- Students must maintain a 2.5 cumulative GPA.
- 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 <b>OR</b> 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 <b>OR</b> HIS 102 History of Western Civilization II <b>OR</b> 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	5	MTH 167 Pre-Calculus with Trigonometry <b>OR</b> PHY 232 General University Physics II <i>(Only take PHY 232 at NOVA if placed directly into MTH 263 and MTH 167 is not needed)</i>	MATH 105 PHYS 260-261-XXX	Elective or Major
6	Science Course #1	5	PHY 231 General University Physics I	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 <b>OR</b> 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	Humanities/Fine Arts #1	3	ART 100 Art Appreciation <b>OR</b> ART 101 History and Appreciation of Art I <b>OR</b> ART 102 History and Appreciation of Art II <b>OR</b> CST 130 Introduction to Theatre <b>OR</b> CST 151 Film Appreciation I <b>OR</b> MUS 121 Music Appreciation I	ARTH 101 ARTH 200 ARTH 201 THR 101 ENGH L372 MUSI 101	Arts
12	Social/Behavioral Sciences #1	3	ECO 201 Principles of Macroeconomics <b>OR</b> ECO 202 Principles of Microeconomics <b>OR</b> GEO 210 Introduction to Cultural Geography <b>OR</b> HIS 121 United States History I <b>OR</b> HIS 122 United States History II <b>OR</b> PLS 135 American National Politics <b>OR</b> PLS 211 United States Government I <b>OR</b> PSY 200 Principles of Psychology <b>OR</b> PSY 230 Developmental Psychology <b>OR</b> SOC 200 Principles of Sociology <b>OR</b> SOC 211 Principles of Anthropology I	ECON 104 ECON 103 GGG 103 HIST 121 HIST 122 GOVT 103 GOVT 103 PSYC 100 PSYC 211 SOCI 101 ANTH 114	Soc/Behav
13	Math or Science #1	3	CHM 112 General Chemistry II	CHM 212-214	Major
14	Math or Science #2 (with lab below under line #19)	2	CHM 245 Organic Chemistry I - Laboratory	CHEM L315	Major

15	Science Course #2	3	CHM 241 Organic Chemistry I-Lecture	CHEM L313	Major
16	Social/Behavioral Sciences #2	3	GEO 220 World Regional Geography <b>OR</b> HIS 111 History of World Civilization <b>OR</b> PLS 140 Introduction to Comp Govt <b>OR</b> PLS 241 International Relations I <b>OR</b> PSY 219 Cross-Cultural Psychology <b>OR</b> SSC 115 Introduction to Global Affairs	GGG 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 #14)	2	CHM 246 Organic Chemistry II - Laboratory	CHEM L318	Major

**A.S. SCIENCE DEGREE TOTAL 60**

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

## B.S. Chemistry - No Concentration

	MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT
20	Physics Requirement OR General Electives	3-4	PHYS 260-261 University Physics II <b>OR</b> General Electives ( <i>if Physics sequence is complete</i> ) (See: Advisor)	Major
21	Mathematics Courses	4	MATH 213 Analytical Geometry and Calculus III	Major
22	Chemistry Courses	4	CHEM 321 Elementary Quantitative Analysis	Major
23	Chemistry Courses	5	CHEM 331 Physical Chemistry I <b>AND</b> CHEM 336 Physical Chemistry Lab I	Writing Intensive
24	Chemistry Courses	4	CHEM 463 General Biochemistry I	Major
25	Gen Ed: Written Communication (UL)	3	ENGH 302 Advanced Composition	Written Comm
26	Chemistry Courses	5	CHEM 332 Physical Chemistry I <b>AND</b> CHEM 337 Physical Chemistry II Lab	Major
27	Chemistry Courses	5	CHEM 422 Instrumental Methods of Chemical Analysis <b>AND</b> CHEM 423 Instrumental Methods of Chemical Analysis Lab	Major
28	General Electives	3	General Electives (See: Advisor) (Upper-level)	Major
29	Chemistry Courses	3	Chemistry Elective*	Major
30	Chemistry Courses	5	CHEM 441 Properties and Bonding of Inorganic Compounds <b>AND</b> CHEM 445 Inorganic Preparations and Techniques	Major
31	In-Depth Electives	3	Approved In-depth elective course**	Major
32	General Electives	3	General Electives (Upper-level See: Advisor)	Major
33	Gen Ed: Synthesis	3	Approved Synthesis Course***	Synthesis
34	Gen Ed: Information Technology	3	Approved IT Course***	Info Tech
35	General Electives	3-4	General Electives (See: Advisor)	Major

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

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, lab, or research course

\*\*For approved In-Depth elective course, please visit: <https://catalog.gmu.edu/colleges-schools/science/chemistry-biochemistry/chemistry-bs/#requirements-text>

\*\*\*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.