

# ADVANCE

A NOVA | MASON PARTNERSHIP

A.S. Science/ B.A. Chemistry - All  
Concentrations 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 approve 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 167	5	MTH 167 Pre-Calculus with Trigonometry	MATH 105	Elective
5	ITE 115 or General Education	4	CHM 111 College 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 <b>OR</b> 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 <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 GGS 103 HIST 121 HIST 122 GOVT 103 GOVT 103 PSYC 100 PSYC 211 SOCI 101 ANTH 114	Soc/Behav
10	Science Course #1	4	CHM 112 College Chemistry II	CHEM 212-214	Major
11	MTH 264	4	MTH 264 Calculus II	MATH 114	Elective
12	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
13	Math or Science #1	4	BIO 101 General Biology I	BIOL 103	Nat Science
14	Math or Science #2	4-5	<b>Biochemistry Concentration:</b> PHY 201 General College Physics I <b>No Concentration:</b> PHY 201 General College Physics I <b>OR</b> PHY 231 General University Physics I	PHYS 243-244  PHYS 243-244 PHYS 160-161-266	Nat Science

15	Math or Science #3	4-5	<b>Biochemistry Concentration:</b> PHY 202 General College Physics I <b>No Concentration:</b> PHY 202 General College Physics I <b>OR</b> PHY 232 General University Physics I	PHYS 245-246  PHYS 245-246 PHYS 260-261-XXX	Major
16	Science Course #2	4	BIO 206 Cell Biology	BIOL 213	Major
17	Social/Behavioral Sciences #2 <i>(Must select discipline different from Soc/Behav above)</i>	3	GEO 220 World Regional Geography <b>OR</b> PLS 140 Introduction to Comparative Gov't <b>OR</b> PLS 241 International Relations I	GGS 101 GOVT 133 GOVT 132	Global & COS Soc/Behav
18	Humanities/Fine Arts #2	3	ENG 236 Introduction to the Short Story <b>OR</b> ENG 241 Survey of American Literature I <b>OR</b> ENG 242 Survey of American Literature II <b>OR</b> ENG 251 Survey of World Literature I <b>OR</b> ENG 252 Survey of World Literature II <b>OR</b> ENG 253 Survey of African-American Literature I	ENGH 202	Literature

**A.S. SCIENCE DEGREE TOTAL 62-64**

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

## B.A. Chemistry

### Select Biochemistry Concentration or No Concentration.

	MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE
19	Chemistry Courses	5	CHEM 313 Organic Chemistry I <b>AND</b> CHEM 315 Organic Chemistry Lab I	Major
20	College Requirement: Phil/Reli & Non-Western Course	3	Approved Phil/Reli & Non-Western Course ( <i>Upper-level</i> )	COS Phil/Rel & Non-Western
21	Mathematics Courses	3	<b>No Concentration:</b> MATH 213 Analytical Geometry and Calculus III <b>OR</b> <b>Biochemistry Concentration:</b> STAT 250 Statistics I	Major
22	College Requirement: Foreign Language	6	Approved foreign language course*	Major
23	Gen Ed: Written Communication (UL)	3	ENGH 302 Advanced Composition	Written Comm
24	Chemistry Courses	4	CHEM 321 Elementary Quantitative Analysis	Major
25	Chemistry Courses	5	CHEM 314 Organic Chemistry II <b>AND</b> CHEM 318 Organic Chemistry Lab II	Major
26	College Requirement: Foreign Language	3	Approved foreign language course*	Major
27	Chemistry Courses	5	CHEM 331 Physical Chemistry I <b>AND</b> CHEM 336 Physical Chemistry Lab I	Writing Intensive
28	Chemistry Courses	4-5	<b>No Concentration:</b> Any 5 credits of electives in CHEM ( <i>Upper-level</i> ) <b>OR</b> <b>Biochemistry Concentration:</b> CHEM 463 General Biochemistry I	Major
29	Chemistry Courses	5	<b>No Concentration:</b> CHEM 332 Physical Chemistry II <b>AND</b> CHEM 337 Physical Chemistry Lab II <b>OR</b> <b>Biochemistry Concentration:</b> CHEM 464 General Biochemistry II <b>AND</b> CHEM 465 Biochemistry Lab	Major
30	Gen Ed: Information Technology	3	Approved Information Technology course** ( <i>Upper-level</i> )	Info Tech
31	Chemistry Courses	3	<b>Biochemistry Concentration:</b> CHEM 446 Bioinorganic Chemistry <b>OR</b> <b>No Concentration:</b> General Electives ( <i>Upper-level</i> See: Advisor)	Major

32	College Requirement: Foreign Language	3	Approved foreign language course*	Major
33	General Elective	1-2	General Electives ( <i>Upper-level</i> See: Advisor)	Major
34	Gen Ed: Synthesis	3	Approved Synthesis Course**	Synthesis
B.A. CHEMISTRY DEGREE				
TOTAL		124		
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 - <a href="https://catalog.gmu.edu/policies/">https://catalog.gmu.edu/policies/</a>				
*For approved Foreign Language Courses, please visit - <a href="https://catalog.gmu.edu/colleges-schools/humanities-social-sciences/modern-classical-languages/">https://catalog.gmu.edu/colleges-schools/humanities-social-sciences/modern-classical-languages/</a>				
**For approved Mason Core courses, please visit - <a href="https://catalog.gmu.edu/mason-core/">https://catalog.gmu.edu/mason-core/</a>				
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: <a href="https://prehealth.gmu.edu/">https://prehealth.gmu.edu/</a>				
Students seeking a bachelor's degree must apply at least 45 credits of upper-level courses (numbered 300 or above) toward graduation requirements.				