

# ADVANCE

A NOVA | MASON PARTNERSHIP

A.S. Science (Chemistry Track)/B.S. Chemistry

2018-19

## 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 MTE or ENF courses (excluding summer).
4. In the first 30 credits, students must:
  - a. Complete ENG 111 and ENG 125 with a C or better.
  - b. Complete the first college-level MTH course with a C or better.
  - c. Engineering students must begin the calculus sequence and complete Calculus I and II with a B 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

NOVA DEGREE REQUIREMENT SEQUENCE	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	HIST 101 HIST 102 Western Civ Western Civ
4	MTH 263	4	MTH 263 Calculus I	MATH 113 Quant
5	MTH 167 or Science	4	CHM 111 College Chemistry I	CHEM 211-213 NAT SCIENCE
6	ENG Course	3	ENG 125 Introduction to Literature	ENGH 201 Literature
7	CST Course	3	CST 100 Principles of Public Speaking <b>OR</b> CST 110 Introduction to Communication <b>OR</b> CST 126 Interpersonal Communication	COMM 100 COMM 101 COMM 101 Oral Comm Oral Comm Oral Comm
8	MTH 264	4	MTH 264 Calculus II	MATH 114 DEGREE
9	ITE 115 or General Education	4	CHM 112 College Chemistry II	CHEM 212-214 NAT SCIENCE
10	Science Course #1	5	PHY 231 General University Physics I	PHYS 160-161-266 NAT SCIENCE
11	Humanities/Fine Arts #1	3	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 200 ARTH 201 THR 101 ENGH L372 MUSI 101 Arts Arts Arts Arts Arts
12	Social/Behavioral Sciences #1	3	ECO 201 Principles of Macroeconomics <b>OR</b> GEO 210 Introduction to Cultural Geography <b>OR</b> HIS 121 United States History I <b>OR</b> PLS 211 United States Government I <b>OR</b> PSY 200 Introduction to Psychology <b>OR</b> SOC 200 Principles of Sociology	ECON 104 GGG 103 HIST 121 GOVT 103 PSYC 100 SOCI 101 Soc/Behav Soc/Behav Soc/Behav Soc/Behav Soc/Behav Soc/Behav
13	Math or Science #1	3	CHM 241 Organic Chemistry I-Lecture	CHEM L313 DEGREE
14	Math or Science #2 (with lab below)	2	CHM 245 Organic Chemistry I - Laboratory	CHEM L315 DEGREE
15	Science Course #2	5	PHY 232 General University Physics II	PHYS 260-261-XXX NAT SCIENCE
16	Social/Behavioral Sciences #2	3	ECO 202 Principles of Microeconomics <b>OR</b> GEO 220 World Regional Geography <b>OR</b> PLS 241 International Relations I <b>OR</b> PSY 200 Introduction to Psychology <b>OR</b> SOC 200 Principles of Sociology <b>OR</b> SOC 211 Principles of Anthropology I	ECON 103 GGG 101 GOVT 132 PSYC 100 SOCI 101 ANTH 120 Soc/Behav

17	Humanities/Fine Arts #2	3	REL 231 Religions of the World I <b>OR</b> REL 232 Religions of the World II <b>OR</b> REL 233 Introduction to Islam	RELI 212 RELI 211 RELI 272	GLOBAL
18	Math or Science #3	3	CHM 242 Organic Chemistry II - Lecture	CHEM L314	DEGREE
19	Math or Science #2 (with lab above)	2	CHM 246 Organic Chemistry II - Laboratory	CHEM L318	DEGREE
<b>A.S. DEGREE TOTAL (CHEMISTRY TRACK)</b>		<b>61</b>			

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

Students in ADVANCE Chemistry Pathway are recommended to select the following concentration: Biochemistry  
 Note: B.S. with no concentration or a concentration in Analytical and Environmental Chemistry will require a different course sequencing.

See Academic Advisor to discuss graduation plan.

MASON DEGREE REQUIREMENT SEQUENCE		Credits	Course	MASON CORE/DEGREE EQUIVALENT	
20	Biology Courses	4	BIOL 213 Cell Structure & Function	DEGREE	
21	Gen Ed: Written Communication (Upper level)	3	ENGH 302 Advanced Composition	Written Comm	
22	General Electives	3	General Electives (See: Advisor)	DEGREE	
23	Chemistry Courses	4	CHEM 321 Elementary Quantitative Analysis	DEGREE	
24	Chemistry Courses	5	CHEM 331 Physical Chemistry I <b>AND</b> CHEM 336 Physical Chemistry Lab I	DEGREE	
25	Chemistry Courses	4	CHEM 463 General Biochemistry I	DEGREE	
26	General Electives	3	General Electives (See: Advisor) ( <b>Upper-level</b> )	DEGREE	
27	Chemistry Courses	5	CHEM 464 General Biochemistry II <b>AND</b> CHEM 465 Biochemistry Lab	DEGREE	
28	Biology Courses	4	BIOL 305 Biology of Microorganisms <b>AND</b> BIOL 306 Biology of Microorganisms Laboratory	DEGREE	
29	General Electives	3	General Electives (See: Advisor) ( <b>Upper-level</b> )	DEGREE	
30	Approved Science Electives	3	CHEM/BIOL Elective**	DEGREE	
31	Chemistry Courses	3	CHEM 446 Bioinorganic Chemistry	DEGREE	
32	Approved Science Electives	3	CHEM/BIOL Elective**	DEGREE	
33	Approved Science Electives	3	CHEM/BIOL Elective**	DEGREE	
34	Gen Ed: Synthesis	3	Approved Synthesis Course (See: Mason Catalog)	Synthesis	
35	Gen Ed: Information Technology	3	Approved IT Course (See: Mason Catalog)	DEGREE	
36	General Electives	3	General Electives (See: Advisor) ( <b>Upper-level</b> )	DEGREE	
<b>B.S. CHEMISTRY DEGREE TOTAL</b>		<b>120</b>			

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

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