ADVANCE
A NOVA | MASON PARTNERSHIP

A.S. Science: Mathematics Specialization

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 pass all Mathematics courses with a C or better to progress to the next Mathematics course.

6. Students must complete at least six degree-applicable credits with a C or better each fall and spring semester.

7. Students must maintain a 2.5 cumulative GPA.

8. 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	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
6	ENG 112	3	ENG 112 College Composition II	ENGH XXX	Elective
7	MTH 264	4	MTH 264 Calculus II	MATH 114	Major
8	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
9	Science Course #1	4	BIO 101 General Biology I **OR** CHM 101 General Chemistry I **OR** ENV 121 General Environmental Science I **OR** GOL 105 Physical Geology **OR** PHY 101 Introduction to Physics I	BIOL 103 CHEM 103 EVPP 110 GEOL 101 PHYS 103	Nat Science
10	MTH 265	4	MTH 265 Calculus III	MATH 213	Major
11	Science Course #2	4	BIO 102 General Biology II **OR** CHM 102 General Chemistry II **OR** ENV 122 General Environmental Science II **OR** GOL 106 Historical Geology **OR** PHY 102 Introduction to Physics II	BIOL 106/107 CHEM 104 EVPP 111 GEOL 102 PHYS 104	Nat Science

12	CST Course	3	CST 100 Principles of Public Speaking **OR**	COMM 100	Oral Comm
			CST 110 Introduction to Communication	COMM 101	
13	Social/Behavioral Sciences #2	3	GEO 220 World Regional Geography **OR**	GGS 101	Global
			PLS 140 Introduction to Comparative Gov't **OR**	GOVT 133	
			PLS 241 International Relations I	GOVT 132	
14	ITE 115 or CSC 200 (or MTH 288)	3	MTH 288 Discrete Mathematics	MATH 125	Major
15	CSC 201	4	CSC 201 Computer Science I	CS 112	Info Tech
16	Math Elective #1	3	MTH 266 Linear Algebra	MATH 203	Major
17	Math Elective #2	3	MTH 267 Differential Equations	MATH 214	Major
18	General Education Elective *(If MTH 167 not selected, must choose different discipline than Soc/Behav above)*	3-5	MTH 167 Precalculus with Trigonometry *(if not placed directly into MTH 263)* **OR** 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	MATH 105 ECON 104 ECON 103 GGS 103 HIST 121 HIST 122 GOVT 103 GOVT 103 PSYC 100 PSYC 211 SOCI 101 ANTH 114	Elective or COS Soc/Behav
19	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
A. S. SCIENCE (MATH) DEGREE TOTAL		**61-63**			

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

B.A. Mathematics

	MASON DEGREE REQUIREMENT	**Credits**	**Course**	**MASON CORE/DEGREE EQUIVALENT**
20	College Requirement: Foreign Language	6	Approved foreign language course*	Major
21	Mathematics Core	3	MATH 322 Advanced Linear Algebra	Major
22	College Requirement: COS Phil/Reli & Non-Western	3	Approved Phil/Reli and Non-Western class*** (Upper-level See: Advisor)	COS Phil/Reli & Non-Western
23	College Requirement: Foreign Language	3	Approved foreign language course*	Major
24	General Electives	3	General Electives (Upper-level See: Advisor)	Major
25	Gen Ed: Written Communication (UL)	3	ENGH 302 Advanced Composition (Natural Science Section)	Written Comm
26	Mathematics Core	3	MATH 300 Introduction to Advanced Mathematics	Major
27	General Electives	3	General Electives (Upper-level See: Advisor)	Major
28	Mathematics Electives	3	Any MATH course numbered above 300 - excluding MATH 400	Major
29	Mathematics Electives	3	Any MATH course numbered above 300 - excluding MATH 400	Major
30	College Requirement: Foreign Language	3	Approved foreign language course*	Major
31	General Electives	3	General Electives (Upper-level See: Advisor)	Major
32	General Electives	3	General Electives (Upper-level See: Advisor)	Major
33	General Electives	3	General Electives (Upper-level See: Advisor)	Major
34	General Electives	3-5	General Electives (Upper-level See: Advisor)	Major

35	**Mathematics Electives**	3	Any MATH course numbered above 300 - excluding MATH 400	Major
36	**Mathematics Electives**	3	Any MATH course numbered above 300 - excluding MATH 400	Major
37	**Gen Ed: Synthesis**	3	Approved synthesis course (MATH 400 recommended)**	Synthesis
B.A. MATHEMATICS DEGREE TOTAL		**120**		

Denotes a course that must be taken at George Mason University. Please see your Success Coach to enroll.

*For approved Foreign Language Courses, please visit - https://catalog.gmu.edu/colleges-schools/humanities-social-sciences/modern-classical-languages/

**For approved Mason Core courses, please visit - https://catalog.gmu.edu/mason-core/

***For approved Non-Western Culture courses for the COS College Requirement, please visit - https://catalog.gmu.edu/colleges-schools/science/mathematical-sciences/mathematics-ba/#requirementstext

General Note: A maximum of 6 credits of grades below 2.00 in coursework designated MATH or STAT may be applied toward the major. Students intending to enter graduate school in mathematics are strongly advised to take MATH 315 Advanced Calculus I and MATH 321 Abstract Algebra. Students may not receive credit for both MATH 214 Elementary Differential Equations and MATH 216 Theory of Differential Equations; both MATH 213 Analytic Geometry and Calculus III and MATH 215 Analytic Geometry and Calculus III (Honors); both MATH 351 Probability and STAT 344 Probability and Statistics for Engineers and Scientists I; and both MATH 352 Statistics and STAT 354 Probability and Statistics for Engineers and Scientists II.

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