

ADVANCE

A NOVA | MASON PARTNERSHIP

A.S. Science: Mathematics Specialization /
B.S. Statistics - Statistical Analytics
Concentration Pathway
2020-2021

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 complete at least six degree-applicable credits with a C or better each fall and spring semester.
6. Students must pass all Mathematics courses with a C or better to progress to the next Mathematics course.
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 GGG 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 Introductory 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 Introductory 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 CST 110 Introduction to Communication	COMM 100 COMM 101	Oral Comm
13	Social/Behavioral Sciences #2	3	GEO 220 World Regional Geography OR PLS 140 Introduction to Comparative Gov't OR PLS 241 International Relations I	GGs 101 GOVT 133 GOVT 132	Global
14	CSC 201	3	CSC 201 Computer Science I	CS 112	Info Tech
15	Math Elective #1	3	MTH 266 Linear Algebra	MATH 203	Major
16	Math Elective #2	3	MATH 288 Discrete Mathematics	MATH 125	Major
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	ITE 115 or CSC 200 (or CSC 202)	4	CSC 202 Computer Science II	CS 211	Major
19	General Education Elective	3	STAT 260 Introduction to Statistical Practice I	STAT 260	Major

A. S. SCIENCE (MATH) DEGREE

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TOTAL

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

B.S. Statistics - Statistical Analytics Concentration

	MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT
20	Statistics Core	3	STAT 362 Introduction to Computer Statistical Packages	Major
21	Technical Elective	3	Any approved Technical Elective**	Major
22	Statistics Core	3	STAT 334 Introduction to Probability Models and Simulation OR STAT 346 Probability for Engineers	Major
23	Concentration Requirement	3	CS 310 Data Structures	Major
24	Technical Electives	3	Any approved Technical Electives*	Major
25	Gen Ed: Written Communication (UL)	3	ENGH 302 Advanced Composition (Natural Science Section)	Written Comm
26	Statistics Electives	3	Any STAT course numbered 356 or 440-499**	Major
27	Statistics Core	3	STAT 354 Probability and Statistics for Engineers and Scientists II OR STAT 360 Introduction to Statistical Practice II	Major
28	Statistics Core	3	STAT 456 Applied Regression Analysis	Major
29	Concentration Requirement	3	CS 330 Formal Methods and Models	Major
30	Concentration Requirement	3	OR 481 Numerical Methods in Engineering	Major
31	Statistics Electives	3	Any STAT course numbered 356, or 440-499**	Major
32	Statistics Core	3	STAT 463 Introduction to Exploratory Data Analysis	Major
33	Concentration Requirement	3	STAT 472 Introduction to Statistical Learning	Major
34	Concentration Requirement	3	CS 450 Database Concepts OR CDS 302 Scientific Data and Databases	Major
35	Statistics Core	3	STAT 489 Pre-Capstone Professional Development	Writing Intensive
36	Concentration Requirement	3	CS 484 Data Mining OR CDS 303 Scientific Data Mining	Major
37	General Elective	3	General Elective	Major
38	Statistical Electives	3	Any STAT course numbered 356, or 440-499**	Major
39	Gen Ed: Synthesis/Statistics Core	3	STAT 490 Capstone in Statistics	Synthesis

B.S. STATISTICS DEGREE

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TOTAL

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

*For approved Technical Electives, please visit - <https://catalog.gmu.edu/colleges-schools/engineering/statistics/statistics-bs/#requirementstext>

**May not be used to fulfill other degree requirements.

For academic policies and procedures, please see Mason catalog - <https://catalog.gmu.edu/policies/>

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