ADVANCE

A NOVA | MASON PARTNERSHIP

A.A.S Information Systems Technology / B.A.S. Data Analytics Pathway

Online Option Available

2025-2026

A.A.S. Information Systems Technology

ADVANCE Program Milestones

ADVANCE Milestone Requirements: All ADVANCE students must adhere to the following requirements. For Milestones #1-#3, failure to meet these milestones will prevent a student from matriculating to Mason and/or result in termination from ADVANCE. For Milestones #4-#7, failure to meet these milestones may delay matriculation to Mason.

1. Students must graduate with the NOVA degree aligned with their ADVANCE academic pathway within 4 years of being admitted into ADVANCE. Students are highly encouraged to be continuously enrolled at NOVA/Mason to support progress towards degree completion.

2. Students must maintain a minimum 2.5 cumulative GPA at NOVA and must have a minimum 2.5 GPA upon matriculation to Mason.

3. Students who wish to enroll at Mason for the fall semester must apply for NOVA spring graduation by March 1 or summer graduation by June 1. Students who wish to enroll at Mason for the spring semester must apply for NOVA fall graduation by October 1.

4. Students must begin developmental coursework no later than the first semester in ADVANCE at NOVA.

5. Students must take first college-level MTH course and ENG 111 in the semester immediately following the completion of any MDE or EDE courses (excluding summer).

6. In the first 30 credits, students must complete ENG 111 and ENG 112 with a C or better.

7. Students must complete a college level math course with a C or better no later than one semester before NOVA graduation. Refer to your pathway to select the appropriate MTH course(s).

ADVANCE Program-Specific Requirements:

BAS programs have specialized admission criteria. In this pathway, the Mason Core Quantitative Reasoning course is completed at Mason. Refer to the courses below to select the appropriate math course at NOVA.

If English is not your first language or you have completed ESL coursework, you must complete ENG 111 and ENG 112 to meet the English Language Proficiency requirement. Please reach out to ADVANCE Admissions early if you have any questions about this requirement: advance@gmu.edu.

BAS degrees are designed for adult learners who have some work experience in their field of choice, but the degree is open to students of all ages. Further, BAS degrees are often considered terminal degrees (i.e., they may not lead to advanced study in master's degree or doctoral programs), however students completing the Applied Science: Data Analytics, BAS degree may be eligible for admission to George Mason's Data Analytics Engineering, MS, provided they meet any program's admission requirements. Students who are interested in advanced study are encouraged to contact graduate programs early to determine if the BAS program fits their requirements. To explore possible Bachelor's to Accelerated Master's (BAM) program options from the BAS degree at Mason, visit: https://bas.gmu.edu/academics/bam/.

	NOVA DEGREE REQUIREMENT	Credits	Courses	MASON TRANSFER EQUIVALENT	MASON CORE/DEGREE EQUIVALENT
1	**SDV 101**	1	SDV 100 College Success Skills **OR** SDV 101 Orientation to Information Technology	UNIV 100	General Elective
2	**ENG 111**	3	ENG 111 College Composition I[1]	ENGH XXX	General Elective
3	**ITD 110**	3	ITD 110 Web Design I	BAS XXX	General Elective
4	**ITE 152**	3	ITE 152 Introduction to Digital and Information Literacy and Computer Applications	IT 104	Info Tech
5	**ITN 100 Required** ***(NOVA Catalog ITN 100 or ITN 101)***	3	ITN 100 Intro to Telecommunications[2]	See ITE 221	General Elective
6	**MTH 161 Required** ***(NOVA Catalog: MTH 154, or MTH 155, or higher)***	3	MTH 161 Precalculus I[3]	MATH 103T	Prerequisite & General Elective
7	**ITE 170**	3	ITE 170 Multimedia Software	IT XXX	General Elective
8	**ITN 170**	3	ITN 170 Linux System Administration	IT XXX	General Elective
9	**ITN 260**	3	ITN 260 Network Security Basics	IT XXX	General Elective
10	**ITP 100**	3	ITP 100 Software Design	IT XXX	General Elective

11	**IT Elective #1**	3	ITD 145 Applied Data Science Techniques	BAS XXX	General Elective
12	**Approved Elective**	3	ENG 112 College Composition II[1]	ENGH 101	Written Comm
13	**ITD 256**	3	ITD 256 Advanced Database Management	IT XXX	General Elective
14	**ITE 221**	3	ITE 221 PC Hardware and OS Architecture[2]	IT 105 & IT XXX	General Elective
15	**ITP Programming Elective**	4	ITP 150 Python Programming[4]	IT 109	Major
16	**IT Elective #2**	3	ITD 132 Structured Query Language	IT XXX	General Elective
17	**IT Elective #3**	3	ITD 245 Advanced Applied Data Science Techniques	BAS XXX	General Elective
18	**CST Course**	3	CST 100 Principles of Public Speaking **OR** CST 110 Introduction to Human Communication	COMM 100 COMM 101	Oral Comm
19	**IT Elective #4**	3	ITD 140 Machine Learning I	BAS XXX	General Elective
20	**Humanities/Fine Arts**	3	ART 100 Art Appreciation **OR** ART 101 History of Art: Prehistoric to Gothic **OR** ART 102 History of Art: Renaissance to Modern **OR** CST 130 Introduction to Theatre **OR** CST 151 Film Appreciation I **OR** MUS 121 Music in Society	ARTH 101 ARTH 200 ARTH 201 THR 101 ENGH L372 MUSI 101	Arts
21	**Social/Behavioral Sciences #1**	3	HIS 101 Western Civilizations Pre-1600 CE **OR** HIS 102 Western Civilizations Post-1600 CE **OR** HIS 112 World Civilizations Post-1500 CE ***(recommended)***	HIST 101T HIST 102T HIST 125	Global History
22	**Social/Behavioral Sciences #2**	3	ECO 201 Principles of Macroeconomics **OR** GEO 210 People and the Land: An Introduction to Cultural Geography **OR** HIS 121 United States History to 1877 **OR** PSY 200 Principles of Psychology **OR** PLS 135 U.S. Government and Politics **OR** SOC 200 Introduction to Sociology	ECON 104 GGS 103 HIST 121 PSYC 100 GOVT 103 SOCI 101	Soc/Behav
A.A.S. INFO. SYSTEMS TECH. DEGREE TOTAL		**65**			

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

B.A.S. Applied Science - Data Analytics

	MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT
23	**Gen Ed: Written Communication (LL)**	0-3	ENGH 101 Composition[1] ***(if ENG 112 is not completed at NOVA)***	Written Comm
24	**Concentration Requirements**	3	MATH 108 Introductory Calculus with Business Applications	Major & Quant
25	**Gen Ed: Literature**	3	Approved Upper-level Literature Course[5]	Literature
26	**Core Requirements**	3	BAS 300 Building Professional Competencies	Major
27	**Concentration Requirements**	3	STAT 250 Introductory Statistics I	Major
28	**Gen Ed: Global Contexts**	3	Approved Upper-level Global Contexts[5] (See: Advisor)	Global Contexts
29	**Concentration Requirements**	3	IT 102 Discrete Structures	Major
30	**Gen Ed: Natural Science (Lab)**	4	Approved Natural Science with Lab[5]	Nat Science
31	**Concentration Requirements**	3	IT 343 Project Management	Writing Intensive
32	**Concentration Requirements**	3	STAT 350 Introductory Statistics II	Major
33	**Core Requirements**	3	BAS 490 Introduction to Research Methods	Major
34	**Gen Ed: Natural Science (Non-Lab)**	3	Approved Upper-level Natural Science without Lab[5]	Nat Science
35	**Concentration Requirements**	3	Applied Coursework (Upper-level, See: Advisor)	Major

36	**Concentration Requirements**	3	IT 209 Introduction to Object Oriented Programming	Major
37	**Concentration Requirements**	3	STAT 362 Introduction to Computer Statistical Packages	Major
38	**Gen Ed: Written Communication (Upper-level)**	3	ENGH 302 Advanced Composition	Written Comm
39	**Concentration Requirements**	3	STAT 463 Introduction to Exploratory Data Analysis	Major
40	**Concentration Requirements**	3	Applied Coursework (Upper-level, See: Advisor)	Major
41	**Concentration Requirements**	3	Applied Coursework (Upper-level, See: Advisor)	Major
42	**Concentration Requirements**	3	IT 309 Data Structures and Algorithms in Python	Major
43	**Core Requirements/Gen Ed: Apex**	3	BAS 491 Applied Sciences Capstone	Apex
B.A.S. APPLIED SCIENCE DEGREE TOTAL	**126-129**			

Please note: Some fully online courses may require a campus presence for orientations, tests, final exams, or labs.

Important Academic Information:

[1] Students who complete ENG 111 after Spring 2024 will earn ENGH --- for ENG 111 and ENGH 101 for ENG 112. Students should use the "Approved Elective" to complete ENG 112. If students matriculate without an ENGH 101 equivalent complete with a C or higher, ENGH 101 will be required in the first semester at Mason.

[2] Students must take ITN 100 and ITE 221 in order to receive credit for IT 105.

[3] Students must earn a C or higher in MTH 161 (MATH 103T) to progress to MATH 108 at Mason. Students who place out of MTH 161 may take MTH 261 to fulfill MATH 108.

[4] Students with a conferred AAS degree and a grade of C or higher in ITP 150 will be granted a substitution for IT 109. This substitution is available to BAS students only, and will be processed by the BAS advisor upon matriculation to Mason.

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

Additional General Notes & Resources:

- For more information about Accelerated Master's program options, visit: https://catalog.gmu.edu/colleges-schools/interdisciplinary-programs-courses/applied-science-bas/#acceleratedmasterstext. Students interested in an Accelerated Master's should consult their Mason academic advisor in their first term after matriculation regarding program benefits, admission criteria, and application process.
- Students must have a C or better in any course that satisfies a prerequisite for an IT course. To graduate with the BAS with a Data Analytics concentration, students must have a C or better in their major core, concentration, and applied coursework courses.
- If English is not your first language or you have completed ESL coursework, you must complete ENG 111 and ENG 112 prior to matriculating to George Mason University to meet the English Language Proficiency requirement.
- 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.