

A.S. Information Technology /
B.S. Information Technology Pathway

Online Option Available

2024-2025

A.S. Information 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 complete their NOVA degree within 4 years of being admitted into ADVANCE. Students are <u>highly encouraged</u> 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 Mason Core Quantitative Reasoning course equivalent 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:

- 1. While not required to matriculate to Mason, in the following courses, students must earn a B or higher to receive the equivalent Mason credit: ITP 120 or ITP 150, ITE 170, and ITD 256.
- 2. Students must have a minimum 2.85 GPA upon matriculation to Mason. Please note this program GPA requirement is higher than the ADVANCE program requirement indicated in milestone #2 above.

NOVA DEGREE		_	MASON	MASON
REQUIREMENT	Credits	Courses	TRANSFER	CORE/DEGREE
			EQUIVALENT	EQUIVALENT
SDV Course	1	-	UNIV 100	General Elective
ENG 111	3			General Elective
		HIS 101 Western Civilizations Pre-1600 CE OR	HIST 101T	
HIS Course	3	HIS 102 Western Civilizations Post-1600 CE OR	HIST 102T	Global History
			HIST 125	
ITE 152	3		IT 104	Major & Info Tech
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MTH 161	3		MATH 103T	General Elective
		•	ECON 104	
Social/Behavioral Sciences #1		•	ECON 103	Soc/Behav
	3	Geography OR HIS 121 United States History to 1877 OR HIS 122 United States History Since 1865 OR	GGS 103	
			HIST 121	
			HIST 122	
			GOVT 103	
			PSYC 100	
		, , ,	PSYC 211	
			SOCI 101	
		<u>.</u>	ANTH 114	
			ENGU 404	
ENG 112	3	ENG 112 College Composition II	ENGH 101	Written Comm
MTH 261	3	MTH 261 Applied Calculus I	MATH 108	Major & Quantitative
Technical Elective #1	3	ITE 170 Multimedia Software ³	IT 213	Major
Technical Elective #2	3	ITD 256 Advanced Database Management ³	IT 214	Major
Technical Elective #3	3	IT 102 Discrete Structures	IT 102	Major
	REQUIREMENT SDV Course ENG 111 HIS Course ITE 152 MTH 161 Social/Behavioral Sciences	REQUIREMENT Credits SDV Course 1 ENG 111 3 HIS Course 3 ITE 152 3 MTH 161 3 Social/Behavioral Sciences #1 3 ENG 112 3 MTH 261 3 Technical Elective #1 3 Technical Elective #2 3	SDV Course 1 SDV 100 College Success Skills OR SDV 101 Orientation to Information Technology ENG 111 3 ENG 111 College Composition I¹ HIS 101 Western Civilizations Pre-1600 CE OR HIS 102 Western Civilizations Post-1500 CE (recommended) ITE 152 3 ITE 152 Introduction to Digital and Information Literacy and Computer Applications MTH 161 3 MTH 161 PreCalculus I² ECO 201 Principles of Macroeconomics OR ECO 202 Principles of Microeconomics OR GEO 210 People and the Land: An Introduction to Cultural Geography OR HIS 121 United States History to 1877 OR 3 HIS 122 United States History Since 1865 OR PLS 135 U.S. Government and Politics OR PSY 200 Principles of Psychology OR PSY 230 Developmental Psychology OR SOC 201 Introduction to Sociology OR SOC 201 Introduction to Sociology OR SOC 201 Cultural Anthropology ENG 112 3 ENG 112 College Composition II¹ MTH 261 3 MTH 261 Applied Calculus I Technical Elective #1 3 ITE 170 Multimedia Software³ ITD 256 Advanced Database Management³	NOVA DEGREE REQUIREMENT SDV Course 1 SDV 100 College Success Skills OR SDV 101 Orientation to Information Technology ENG 111 3 ENG 111 College Composition 1¹ ENGH XXX HIST 101 Western Civilizations Pre-1600 CE OR HIST 101T HIS Course 3 HIS 102 Western Civilizations Pre-1600 CE OR HIST 102T HIS 112 World Civilizations Post-1600 CE (recommended) HIST 102T HIS 112 World Civilizations Post-1500 CE (recommended) HIST 125 ITE 152 3 ITE 152 3 MTH 161 PreCalculus 1² MATH 161 3 MTH 161 PreCalculus 1² MATH 163 ECCO 202 Principles of Macroeconomics OR ECO 202 Principles of Microeconomics OR ECO 202 Principles of Microeconomics OR ECO 202 Principles of Microeconomics OR ECO 203 HIST 122 Social/Behavioral Sciences HIS 121 United States History to 1877 OR HIST 122 HIS 122 United States History Since 1865 OR GOVT 103 PSY 200 Principles of Psychology OR PSY 200 Developmental Psychology OR PSY 201 Developmental Psychology OR SOC 201 Lotlural Anthropology ENG 112 ENG 112 3 ENG 112 College Composition II¹ ENG 112 MTH 261 3 MTH 261 Applied Calculus I MATH 108 Technical Elective #1 3 ITE 170 Multimedia Software³ IT 213 Technical Elective #2 ITD 256 Advanced Database Management³ IT 214

12	CST Course	3	CST 100 Principles of Public Speaking OR CST 110 Introduction to Human Communication	COMM 100 COMM 101	Major & Oral Comm
_			ITP 120 Java Programming I ³ OR	IT 106	
13	Programming Elective	4	ITP 150 Python Programming ³	IT 109	Major
			ART 100 Art Appreciation OR	ARTH 101	
14 H	Humanities/Fine Arts #1	3	ART 101 History of Art: Prehistoric to Gothic OR	ARTH 200	
			ART 102 History of Art: Renaissance to Modern OR	ARTH 201	
			CST 130 Introduction to Theatre OR	THR 101	Arts
			CST 151 Film Appreciation I OR	ENGH L372	
			MUS 121 Music in Society	MUSI 101	
			BIO 101 General Biology I OR	BIOL 103/105	
			CHM 101 Introductory Chemistry OR	CHEM 103	
_		_	ENV 121 Foundations of Environmental Science OR	EVPP 108/109	
L5	Science Course #1	4	GOL 105 Physical Geology OR	GEOL 101/103	Major & Nat Science
			GOL 111 Oceanography I OR	GEOL 121/122	
			PHY 100 Elements of Physics	PHYS 103	
L6	Technical Elective #4	3	ITN 100 Introduction to Telecommunications	see ITE 221	Major
17	Technical Elective #5	3	ITE 221 PC Hardware and OS Architecture ⁴	IT 105 and IT XXX	Major & General Elective
			ENG 225 Reading Literature: Culture and Ideas OR		
			ENG 245 British Literature OR		
	Humanities/Fine Arts #2	3	ENG 246 American Literature OR	ENGH 202 or	
18			ENG 255 World Literature OR	FRLN L330 (ENG 255	Literature
			ENG 258 African American Literature OR	only)	
			ENG 275 Women in Literature OR		
			Any 200-Level ENG Literature course ⁵		
			BIO 101 General Biology I OR	BIOL 103/105	
			BIO 102 General Biology II OR	BIOL 102	
			CHM 101 Introductory Chemistry OR	CHEM 103	
			ENV 121 Foundations of Environmental Science OR	EVPP 108/109	
19	Science Course #2	4	ENV 122 Applications in Environmental Science	EVPP 112/113	Major & Nat Science
19 5			GOL 105 Physical Geology OR	GEOL 101/103	•
			GOL 106 Historical Geology OR	GEOL 102/104	
			GOL 111 Oceanography I	GEOL 120/121	
			PHY 100 Elements of Physics	PHYS 103	
			GEO 220 World Regional Geography OR	GGS 101	
			GEO 220 World Regional Geography OR PLS 140 Introduction to Comparative Politics OR	GGS 101 GOVT 133	
20	Social/Behavioral Sciences	3	PLS 140 Introduction to Comparative Politics OR	GOVT 133	General Elective
20	Social/Behavioral Sciences #2	3	- · · · · · · · · · · · · · · · · · · ·		General Elective

A.S. INFORMATION
TECHNOLOGY DEGREE TOTAL

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

B.S. Information Technology

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Concentrations: Cyber Security, Database Technology and Programming, Health Information Technology, Network and Telecommunications, Web Development

	MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT
21	Gen Ed: Written Communication (Upper Level)	3	ENGH 302 Advanced Composition	Written Comm
22	IT Foundation Course	3	IT 206 Object Oriented Techniques for IT Problem Solving OR IT 209 Introduction to Object Oriented Programming	Major
23	IT Foundation Course	3	IT 216 Systems Analysis and Design	Major
24	IT Foundation Course	3	STAT 250 Introductory Statistics I	Major

25 IT Core Course		3	IT 207 Applied IT Programming	Major
26 IT Core Course		3	IT 223 Information Security Fundamentals	Major
27 IT Core Course		3	IT 300 Modern Telecommunications	Major
28 IT Core Course		3	IT 304 IT in the Global Economy	Major
29 IT Core Course		3	IT 341 Data Communications and Network Principles	Major
30 IT Core Course		3	IT 342 Operating Systems Fundamentals	Major
31 IT Core Course		3	IT 343 IT Project Management	Major
32 IT Core Course		3	MBUS 300 Accounting in a Global Economy	Major
33 IT Core Course		3	SYST 469 Human Computer Interaction	Major
Major Capstone Apex	& Gen Ed:	3	IT 492 Senior Design Project I	Apex
Major Capstone Apex	& Gen Ed:	4	IT 493 Senior Design Project II	Apex
36 Other Major Req	uirements	1	IT 293 Applied IT: Junior Transition	Major
37 IT Concentration	Course #1	3	Approved Concentration Course ⁶	Major
38 IT Concentration	Course #2	3	Approved Concentration Course ⁶	Major
39 IT Concentration	Course #3	3	Approved Concentration Course ⁶	Major
40 IT Concentration	Course #4	3	Approved Concentration Course ⁶	Major
41 IT Concentration	Course #5	3	Approved Concentration Course ⁶	Major
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Denotes a course that must be taken at George Mason University while attending NOVA. Failure to complete your co-enrollment course(s) while attending NOVA can significantly affect your timeline for Mason graduation. Please see your ADVANCE Coach for more information and to enroll.

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

Important Academic Information:

TECHNOLOGY DEGREE TOTAL

 1 Students who complete ENG 111 after Spring 2024 will earn ENGH elective for ENG 111 and ENGH 101 for ENG 112.

³To earn the direct Mason equivalent IT course, students must earn an A or B in the NOVA course. Students with final grades of C or below can repeat the NOVA course or take the course at Mason after matriculation. Completing the course at Mason may affect students' Mason graduation timeline. Students earning a B or higher in the NOVA course are awarded IT --- initially and should contact an IT advisor for the appropriate substitutions.

⁴Students must take ITN 100 and ITE 221 in order to receive credit for IT 105.

⁵200-level ENG literature classes include: ENG 225, ENG 230, ENG 236, ENG 237, ENG 245, ENG 246, ENG 250, ENG 255, ENG 256, ENG 257, ENG 258, ENG 271, ENG 275, and ENG 279.

⁶For approved concentration courses, please visit: https://catalog.gmu.edu/colleges-schools/engineering-computing/school-computing/information-sciences-technology/information-technology-bs/#requirementstext

General Education Waiver Policy and Guidance:

- Students who complete a VCCS transfer associate degree (AS, AA, or AFA) will receive a waiver of the Foundation and Exploration (lower division) Mason Core general education categories, which can be found here: https://catalog.gmu.edu/mason-core/. To be eligible for the waiver, the students must provide the Mason Office of Admissions with a final, official transcript reflecting the degree conferral date. As a prerequisite for ENGH 302, ENGH 101 is not waived. Students must complete ENGH 100 or ENGH 101, or an equivalent, with a C or higher.
- When a course fulfills a Mason Core requirement <u>and</u> a major or college requirement (e.g. Major & Quant), students must complete the course listed on the pathway to fulfill the major/college requirement. Courses that fulfill only Mason Core Foundation and Exploration categories are recommendations. In most pathways, ADVANCE students must complete a Quantitative Reasoning course to matriculate through ADVANCE.
- ADVANCE students must complete the associate degree indicated on their pathway (see the ADVANCE Program Milestones listed above). Students who withdraw from ADVANCE and transfer without the associate degree or UCGS are required to complete each Mason Core general education category.

Additional General Notes & Resources:

- 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.

²Students should select MTH 245 if MTH 161 is not needed.