

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

Online Option Available

2023-2024

# 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. 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 REQUIREMENT	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 Information Technology	UNIV 100	General Elective
ENG 111	3	ENG 111 College Composition I <sup>1</sup>	ENGH 101	Written Comm
HIS Course	3	HIS 101 Western Civilizations Pre-1600 CE <b>OR</b> HIS 102 Western Civilizations Post-1600 CE <b>OR</b>	HIST 101 HIST 102	Global History
		HIS 112 World Civilizations Post-1500 CE (recommended)	HIST 125	·
ITE 152	3	ITE 152 Introduction to Digital and Information Literacy and Computer Applications	IT 104	Major
MTH 161	3	MTH 161 PreCalculus I <sup>2</sup>	MATH 103T	General Elective
Social/Behavioral Sciences #1	3	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 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 200 Introduction to Sociology OR SOC 211 Cultural Anthropology	ECON 104 ECON 103 GGS 103 HIST 121 HIST 122 GOVT 103 PSYC 100 PSYC 211 SOCI 101 ANTH 114	Soc/Behav
ENG 112	3	ENG 112 College Composition II <sup>1</sup>	ENGH XXX	General Elective
MTH 261	3	MTH 261 Applied Calculus I	MATH 108	Major & Quantitat
Technical Elective #1	3	ITE 170 Multimedia Software <sup>3</sup>	IT 213	Major
Technical Elective #2	3	ITD 256 Advanced Database Management <sup>3</sup>	IT 214	Major
1 Technical Elective #3	3	IT 102 Discrete Structures	IT 102	Major

CST Course	3	CST 100 Principles of Public Speaking <b>OR</b> CST 110 Introduction to Human Communication	COMM 100 COMM 101	Oral Comm
		ITP 120 Java Programming I <sup>3</sup> <b>OR</b>	IT 106	
Programming Elective	4	ITP 150 Python Programming <sup>3</sup>	IT 109	Major
		ART 100 Art Appreciation <b>OR</b>	ARTH 101	
		ART 101 History of Art: Prehistoric to Gothic <b>OR</b>	ARTH 200	
		ART 102 History of Art: Renaissance to Modern <b>OR</b>	ARTH 201	
Humanities/Fine Arts #1	3	CST 130 Introduction to Theatre <b>OR</b>	THR 101	Arts
		CST 150 Introduction to Theatre OK	ENGH L372	
		MUS 121 Music in Society	MUSI 101	
		BIO 101 General Biology I <b>OR</b>	BIOL 103/105	
		CHM 101 Introductory Chemistry <b>OR</b>	CHEM 103	
Science Course #1	4	ENV 121 General Environmental Science I <b>OR</b>	EVPP 108/109	Nat Science
Science course "1	7	GOL 105 Physical Geology <b>OR</b>	GEOL 101/103	reat Science
		PHY 100 Elements of Physics	PHYS 103	
		FITT 100 Lientents of Filysics	F1113 103	
Technical Elective #4	3	ITN 100 Introduction to Telecommunications	see ITE 221	Major
Technical Elective #5	3	ITE 221 PC Hardware and OS Architecture	IT 105 and IT XXX <sup>4</sup>	Major & General Elective
		ENG 225 Reading Literature: Culture and Ideas <b>OR</b>		Elective
		ENG 245 British Literature <b>OR</b>		
		ENG 246 American Literature <b>OR</b>	ENGH 202 or	
Humanities/Fine Arts #2	3	ENG 255 World Literature <b>OR</b>	FRLN L330 (ENG 255	Literature
indinanties/Time Arts #2	3	ENG 258 African American Literature <b>OR</b>	only)	Literature
		ENG 275 Women in Literature <b>OR</b>	Office	
		<u>-</u>		
		Any 200-Level ENG Literature course <sup>5</sup> BIO 101 General Biology I <b>OR</b>	BIOL 103/105	
		BIO 102 General Biology II <b>OR</b>	BIOL 102	
		CHM 101 Introductory Chemistry <b>OR</b>	CHEM 103	
		ENV 121 General Environmental Science I <b>OR</b>	EVPP 108/109	
Science Course #2			•	Nat Science
Science Course #2	4	FNV 122 General Environmental Science II OR		
Science course #2	4	ENV 122 General Environmental Science II <b>OR</b>	EVPP 112/113	
5 Science Course #2	4	GOL 105 Physical Geology <b>OR</b>	GEOL 101/103	
Science Course #2	4	GOL 105 Physical Geology <b>OR</b> GOL 106 Historical Geology <b>OR</b>	GEOL 101/103 GEOL 102/104	
Science Course #2	4	GOL 105 Physical Geology <b>OR</b> GOL 106 Historical Geology <b>OR</b> PHY 100 Elements of Physics	GEOL 101/103 GEOL 102/104 PHYS 103	
5 Science Course #2	4	GOL 105 Physical Geology <b>OR</b> GOL 106 Historical Geology <b>OR</b>	GEOL 101/103 GEOL 102/104 PHYS 103 GGS 101	
Social/Behavioral Sciences		GOL 105 Physical Geology <b>OR</b> GOL 106 Historical Geology <b>OR</b> PHY 100 Elements of Physics GEO 220 World Regional Geography <b>OR</b> HIS 111 World Civilizations Pre-1500 CE <b>OR</b>	GEOL 101/103 GEOL 102/104 PHYS 103 GGS 101 HIST L387	
Social/Behavioral Sciences	3	GOL 105 Physical Geology <b>OR</b> GOL 106 Historical Geology <b>OR</b> PHY 100 Elements of Physics GEO 220 World Regional Geography <b>OR</b> HIS 111 World Civilizations Pre-1500 CE <b>OR</b> PLS 140 Introduction to Comparative Politics <b>OR</b>	GEOL 101/103 GEOL 102/104 PHYS 103 GGS 101 HIST L387 GOVT 133	Global Understandin
Social/Behavioral Sciences		GOL 105 Physical Geology <b>OR</b> GOL 106 Historical Geology <b>OR</b> PHY 100 Elements of Physics GEO 220 World Regional Geography <b>OR</b> HIS 111 World Civilizations Pre-1500 CE <b>OR</b>	GEOL 101/103 GEOL 102/104 PHYS 103 GGS 101 HIST L387	Global Understandin

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 <b>OR</b> 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
34 Gen Ed: Capstone/Synthesis	3	IT 492 Senior Design Project I	Synthesis
35 Gen Ed: Capstone/Synthesis	4	IT 493 Senior Design Project II	Synthesis
36 Other Major Requirements	1	IT 293 Applied IT: Junior Transition	Major
37 IT Concentration Course #1	3	Approved Concentration Course <sup>6</sup>	Major
38 IT Concentration Course #2	3	Approved Concentration Course <sup>6</sup>	Major
39 IT Concentration Course #3	3	Approved Concentration Course <sup>6</sup>	Major
40 IT Concentration Course #4	3	Approved Concentration Course <sup>6</sup>	Major
41 IT Concentration Course #5	3	Approved Concentration Course <sup>6</sup>	Major
B.S. INFORMATION TECHNOLOGY DEGREE TOTAL	123		

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:

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

<sup>2</sup>Students should select MTH 245 if MTH 161 is not needed.

<sup>3</sup>To 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.

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

<sup>5</sup>200-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.

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

### Additional General Notes & Resources:

- Students who complete a VCCS transfer associate degree (AS, AA, & AFA) will receive a waiver of the Foundation and Exploration (lower division) Mason Core general education categories. 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.
- 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.