

A.S. Information Technology /
B.S. Information Technology Pathway
Online Option Available
2022-2023

## 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 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
2 ENG 111	3	ENG 111 College Composition I	ENGH 101	Written Comm
3 HIS Course	3	HIS 101 Western Civilizations Pre-1600 CE <b>OR</b> HIS 102 Western Civilizations Post-1600 CE <b>OR</b> HIS 112 World Civilizations Post-1500 CE	HIST 101 HIST 102 HIST 125	Western Civ
4 ITE 152	3	ITE 152 Introduction to Digital and Information Literacy and Computer Applications	IT 104	Major
5 MTH 161	3	MTH 161 PreCalculus I <sup>1</sup>	None	Prerequisite
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
7 ENG 112	3	ENG 112 College Composition II	ENGH XXX	General Elective
8 MTH 261	3	MTH 261 Applied Calculus I	MATH 108	Major & Quantitativ
9 Technical Elective #1	3	ITE 170 Multimedia Software <sup>2</sup>	IT 213	Major
.0 Technical Elective #2	3	ITD 256 Advanced Database Management <sup>2</sup>	IT 214	Major
.1 Technical Elective #3	3	IT 102 Discrete Structures	IT 102	Major

12 CST Course	3	CST 100 Principles of Public Speaking <b>OR</b> CST 110 Introduction to Human Communication	COMM 100 COMM 101	Oral Comm	
Due sue un un in a Fle stirre		ITP 120 Java Programming I <sup>2</sup> <b>OR</b>	IT 106	Maion	
3 Programming Elective	4	ITP 150 Python Programming <sup>2</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		
Humanities/Fine Arts #1	3	ART 102 History of Art: Renaissance to Modern <b>OR</b>	ARTH 201		
		CST 130 Introduction to Theatre <b>OR</b>	THR 101	Arts	
		CST 151 Film Appreciation I <b>OR</b>	ENGH L372		
		MUS 121 Music in Society	MUSI 101		
		BIO 101 General Biology I <b>OR</b>	BIOL 103/105		
		CHM 101 Introductory Chemistry OR	CHEM 103		
5 Science Course #1	4	ENV 121 General Environmental Science I OR	EVPP 108/109	Nat Science	
		GOL 105 Physical Geology <b>OR</b>	GEOL 101/103		
		PHY 100 Elements of Physics	PHYS 103		
6 Technical Elective #4	3	ITN 100 Introduction to Telecommunications	see #17		
7 Technical Elective #5	3	ITE 221 PC Hardware and OS Architecture	IT 105 and IT XXX <sup>3</sup>	Major & Genera Elective	
		ENG 225 Reading Literature: Culture and Ideas OR			
	3	ENG 245 British Literature <b>OR</b>			
		EN	ENG 246 American Literature <b>OR</b>	ENGH 202 or	
8 Humanities/Fine Arts #2		ENG 255 World Literature <b>OR</b>	FRLN L330 (ENG 255	Literature	
•		ENG 258 African American Literature OR	only)		
		ENG 275 Women's Literature <b>OR</b>	,,		
		Any 200-Level ENG Literature course <sup>4</sup>			
		BIÓ 101 General Biology I <b>OR</b>	BIOL 103/105		
		BIO 102 General Biology II <b>OR</b>	BIOL 102		
		CHM 101 Introductory Chemistry OR	CHEM 103		
0 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	4	ENV 121 General Environmental Science I OR	EVPP 108/109	Nat Calana	
9 Science Course #2		ENV 122 General Environmental Science II OR	EVPP 112/113	Nat Science	
		GOL 105 Physical Geology <b>OR</b>	GEOL 101/103		
		GOL 106 Historical Geology <b>OR</b>	GEOL 102/104		
		PHY 100 Elements of Physics	PHYS 103		
		GEO 220 World Regional Geography OR	GGS 101		
	2	HIS 111 World Civilizations Pre-1500 CE OR	HIST L387		
Social/Behavioral Sciences		PLS 140 Introduction to Comparative Politics OR	GOVT 133	Global	
#2	3	PLS 241 Introduction to International Relations OR	GOVT 132	Global	
		PSY 219 Cross-Cultural Psychology OR	PSYC L379		
		SSC 115 Introduction to Global Affairs	GLOA 101		

A.S. INFORMATION
TECHNOLOGY DEGREE TOTAL

61

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

# **B.S. Information Technology**

**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>5</sup>	Major
38	IT Concentration Course #2	3	Approved Concentration Course <sup>5</sup>	Major
39	IT Concentration Course #3	3	Approved Concentration Course <sup>5</sup>	Major
40	IT Concentration Course #4	3	Approved Concentration Course <sup>5</sup>	Major
41	IT Concentration Course #5	3	Approved Concentration Course <sup>5</sup>	Major
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**B.S. INFORMATION** 

**TECHNOLOGY DEGREE TOTAL** 

120-123

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:

<sup>1</sup>Students should select MTH 245 if MTH 161 is not needed. MTH 161 does not transfer to Mason.

<sup>2</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 can repeat the NOVA course or take the course at Mason after matriculation. Completing the course at Mason may affect students' Mason graduation timeline.

<sup>3</sup>Students must take ITN 100 and ITE 221 in order to receive credit for IT 105.

<sup>4</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>5</sup>For approved concentration courses, please visit: https://catalog.gmu.edu/colleges-schools/engineering/information-sciences-technology/information-technology-bs/#requirementstext

### Additional General Notes & Resources:

- ADVANCE students who earn at least a 2.85 final, cumulative GPA and no more than 9 credits of unrepeated D/F grades may be eligible to receive a waiver for any lower-level Mason Core courses not already completed. To be eligible for the Mason Core waiver, students must also complete the requirements of the AA or AS degree listed on their pathway, and apply to graduate from NOVA by the deadline (see milestone #3). Students must provide the Office of Admissions with a final, official transcript reflecting the degree conferral date and a cumulative NOVA GPA at or above 2.85.
- 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.