

A.S. Information Technology /
B.S. Information Technology Pathway
2021-2022

# A.S. Information Technology

## **ADVANCE Program Milestones**

<u>ADVANCE Milestone Requirements:</u> 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-#6, 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 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 graduation by March 1 for spring graduation or June 1 for summer graduation. Students who wish to enroll at Mason for the spring semester must apply for NOVA graduation by October 1 for winter graduation.
- 4. Students must begin developmental coursework in 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:
  - 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.

#### **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	MASON CORE/DEGREE
REGOINEIVIEIVI			EQUIVALENT	EQUIVALENT
L SDV Course	1	SDV 100 College Success Skills <b>OR</b>	UNIV 100	General Elective
1 35V Course		SDV 101 Orientation to Information Technology	ONIV 100	General Elective
2 ENG 111	3	ENG 111 College Composition I	ENGH 101	Written Comm
		HIS 101 History of Western Civilization I OR	HIST 101	
HIS Course	3	HIS 102 History of Western Civilization II OR	HIST 102	Western Civ
		HIS 112 History of World Civilization II	HIST 125	
ITE 119	3	ITE 119 Information Literacy	IT 104	Major
MTH 161	3	MTH 161 PreCalculus I <sup>1</sup>	None	Prerequisite
	3	ECO 201 Principles of Macroeconomics OR	ECON 104	Soc/Behav
		ECO 202 Principles of Microeconomics OR	ECON 103	
		GEO 210 Introduction to Cultural Geography OR	GGS 103	
		HIS 121 United States History I <b>OR</b>	HIST 121	
Social/Behavioral Sciences #1		HIS 122 United States History II <b>OR</b>	HIST 122	
Social/Behavioral Sciences #1		PLS 135 American National Politics OR	GOVT 103	30C/ Bellav
		PSY 200 Principles of Psychology <b>OR</b>	PSYC 100	
		PSY 230 Developmental Psychology <b>OR</b>	PSYC 211	
		SOC 200 Principles of Sociology <b>OR</b>	SOCI 101	
		SOC 211 Principles of Anthropology I	ANTH 114	
ENG 112	3	ENG 112 College Composition II	ENGH XXX	General Elective
MTH 261	3	MTH 261 Applied Calculus I	MATH 108	Major
Technical Elective #1	3	ITE 170 Multimedia Software	IT 213	Major
Technical Elective #2	3	ITD 256 Advanced Database Management	IT 214	Major
1 Technical Elective #3	3	IT 102 Discrete Structures	IT 102	Major

12 CST 110	3	CST 100 Principles of Public Speaking <b>OR</b>	COMM 100	Oral Comm	
2 (3) 110		CST 110 Introduction to Communication	COMM 101	Oral Collilli	
3 Programming Elective	4	ITP 120 Java Programming I <b>OR</b>	IT 106	Major	
5 Programming Elective	4	ITP 150 Python Programming	IT 109	iviajoi	
	3	ART 100 Art Appreciation <b>OR</b>	ARTH 101		
		ART 101 History and Appreciation of Art I OR	ARTH 200		
4 Humanities/Fine Arts #1		ART 102 History and Appreciation of Art II OR	ARTH 201	Arts	
4 Humanities/Fine Arts #1		CST 130 Introduction to Theatre OR	THR 101	Aits	
		CST 151 Film Appreciation I <b>OR</b>	ENGH L372		
		MUS 121 Music Appreciation I	MUSI 101		
	4	BIO 101 General Biology I <b>OR</b>	BIOL 103/105		
		CHM 101 Introductory Chemistry I <b>OR</b>	CHEM 103	Nat Science	
5 Science Course #1		ENV 121 General Environmental Science I OR	EVPP 108/109		
		GOL 105 Physical Geology <b>OR</b>	GEOL 101		
		PHY 101 Introduction to Physics I	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>2</sup>	Major & Gener Elective	
	3	ENG 236 Introduction to the Short Story <b>OR</b>		Literature	
		ENG 241 Survey of American Literature I OR			
8 Humanities/Fine Arts #2		ENG 242 Survey of American Literature II OR	ENGH 202		
.o   Hulliallities/ Fille Airts #2		ENG 251 Survey of World Literature I OR	ENGH 202		
		ENG 252 Survey of World Literature II OR			
		ENG 253 Survey of African-American Literature I			
		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 I <b>OR</b>	CHEM 103		
		ENV 121 General Environmental Science I OR	EVPP 108/109		
.9 Science Course #2	4	ENV 122 General Environmental Science II OR	EVPP 112/113	Nat Science	
		GOL 105 Physical Geology <b>OR</b>	GEOL 101		
		GOL 106 Historical Geology <b>OR</b>	GEOL 102/104		
		PHY 101 Introduction to Physics I <b>OR</b>	PHYS 103		
		PHY 102 Introduction to Physics II	PHYS 104		
		GEO 220 World Regional Geography OR	GGS 101		
	# <b>2</b> 3	HIS 111 History of World Civilization I OR	HIST L387		
O Social/Bohaviaval Sajanasa #3		PLS 140 Introduction to Comparative Politics OR	GOVT 133	Clobal	
20 Social/Behavioral Sciences #2		PLS 241 International Relations I <b>OR</b>	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

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

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# **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 I	T Core Course	3	IT 300 Modern Telecommunications	Major
28 I	T Core Course	3	IT 304 IT in the Global Economy	Major
29 1	T Core Course	3	IT 341 Data Communications and Network Principles	Major
30 1	T Core Course	3	IT 342 Operating Systems Fundamentals	Major
31	T Core Course	3	IT 343 IT Project Management	Major
32 1	T Core Course	3	MBUS 300 Accounting in a Global Economy	Major
33 [	T Core Course	3	SYST 469 Human Computer Interaction	Major
34 6	Gen Ed: Capstone/Synthesis	3	IT 492 Senior Design Project I	Synthesis
35 6	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 I	T Concentration Course #1	3	Approved Concentration Course <sup>3</sup>	Major
38 1	T Concentration Course #2	3	Approved Concentration Course <sup>3</sup>	Major
39 1	T Concentration Course #3	3	Approved Concentration Course <sup>3</sup>	Major
40 I	T Concentration Course #4	3	Approved Concentration Course <sup>3</sup>	Major
41 l	T Concentration Course #5	3	Approved Concentration Course <sup>3</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. Please see your Success Coach to enroll.

### **Important Academic Information:**

 $^{1}$ Students should select MTH 245 if MTH 161 is not needed. MTH 161 does not transfer to Mason.

#### Additional General Notes & Resources:

- ADVANCE students who earn at least a 2.85 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 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 meet these criteria by the time of matriculation to Mason and provide the Office of Admissions a final, official transcript reflecting the degree conferral date.
- 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.

<sup>&</sup>lt;sup>2</sup>Students must take ITN 100 and ITE 221 in order to receive credit for IT 105.

<sup>&</sup>lt;sup>3</sup>For approved concentration courses, please visit: https://catalog.gmu.edu/colleges-schools/engineering/information-sciences-technology/information-technology-bs/#requirementstext