

## A.A.S. Information Systems Technology: Cloud Computing Specialization

### 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 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 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:

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 prior to matriculating to Mason 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](mailto: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). Students who are interested in advanced study are encouraged to contact graduate programs early to determine if the BAS program fits their requirements.

	NOVA DEGREE REQUIREMENT	Credits	Courses	MASON TRANSFER EQUIVALENT	MASON CORE/DEGREE EQUIVALENT
1	SDV Course	1	SDV 101 Orientation to Information Technology	UNIV 100	General Elective
2	ENG 111	3	ENG 111 College Composition I <sup>1</sup>	ENGH XXX	General Elective
3	ITE 152	3	ITE 152 Introduction to Digital and Information Literacy and Computer Applications	IT 104	Major & Info Tech
4	ITN 100	3	ITN 100 Introduction to Telecommunications <sup>2</sup>	See ITE 221	Major
5	ITN 257	3	ITN 257 Cloud Computing: Infrastructure and Services	BAS XXX	Major
6	MTH 161 Required (NOVA Catalog: MTH 154 or Higher)	3	MTH 161 PreCalculus I <sup>3</sup>	MATH 103T	General Elective
7	ITD 256	3	ITD 256 Advanced Database Management	IT XXX	Major
8	ITE 221	3	ITE 221 Personal Computer Hardware and OS Architecture <sup>2</sup>	IT 105 & IT XXX	Major
9	ITN 200	3	ITN 200 Administration of Network Resources	BAS XXX	Major
10	ITN 260	3	ITN 260 Network Security Basics	IT XXX	Major
11	Approved Elective	3	ENG 112 College Composition II <sup>4</sup>	ENGH 101	Written Comm
12	ITP 100	3	ITP 100 Software Design	IT XXX	Major
13	ITD 110	3	ITD 110 Web Page Design I	IT XXX	Major
14	ITN 170	3	ITN 170 Linux System Administration	BAS XXX	Major

15	ITN 213	3	ITN 213 Information Storage and Management	BAS XXX	Major
16	ITP Programming Elective	4	ITP 120 Java Programming I <sup>4</sup> <b>OR</b> ITP 150 Python Programming <sup>4</sup>	IT 106 IT 109	Major
17	CST Elective	3	CST 100 Principles of Public Speaking <b>OR</b> CST 110 Introduction to Human Communication	COMM 100 COMM 101	Oral Comm
18	ITN 254	4	ITN 254 Virtual Infrastructure: Installation & Configuration	BAS XXX	Major
19	Humanities/Fine Arts	3	ART 100 Art Appreciation <b>OR</b> ART 101 History of Art: Prehistoric to Gothic <b>OR</b> ART 102 History of Art: Renaissance to Modern <b>OR</b> CST 130 Introduction to Theatre <b>OR</b> CST 151 Film Appreciation I <b>OR</b> MUS 121 Music in Society	ARTH 101 ARTH 200 ARTH 201 THR 101 ENGH L372 MUSI 101	Arts
20	Social/Behavioral Sciences #1	3	ECO 201 Principles of Macroeconomics <b>OR</b> ECO 202 Principles of Microeconomics <b>OR</b> GEO 210 People and the Land: An Introduction to Cultural Geography <b>OR</b> HIS 121 United States History to 1877 <b>OR</b> HIS 122 United States History Since 1865 <b>OR</b> PLS 135 U.S. Government and Politics <b>OR</b> PSY 200 Principles of Psychology <b>OR</b> PSY 230 Developmental Psychology <b>OR</b> SOC 200 Introduction to Sociology <b>OR</b> 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
21	Social/Behavioral Sciences #2	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 ( <i>recommended</i> )	HIST 101T HIST 102T HIST 125	Global History

A.A.S. IST CLOUD DEGREE TOTAL 63

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

## B.A.S. Applied Science Cloud Computing Concentration: Cloud Technology Track

This pathway only applies to the Cloud Technology track within the Cloud Computing Concentration.

	MASON DEGREE REQUIREMENT	Credits	Course	MASON CORE/DEGREE EQUIVALENT
22	Concentration Requirements	3	MATH 108 Introductory Calculus with Business Applications	Quantitative
23	Concentration Requirements	3	IT 102 Discrete Structures	Major
24	Concentration Requirements	2	General Elective (See: advisor)	General Elective
25	Core Program Requirements	3	BAS 300 Building Professional Competencies	Major
26	Gen Ed: Literature	3	Any approved Literature course <sup>5</sup> (Upper-level)	Literature
27	General Electives	3	Any General Elective course (Upper-level)	General Elective
28	Concentration Requirements	3	IT 300 Modern Telecommunications	Major
29	Gen Ed: Written Communication (Upper-level)	3	ENGH 302 Advanced Composition	Written Comm
30	Gen Ed: Natural Science without Lab	3	Any approved Natural Science without Lab course <sup>5</sup> (Upper-level: See Advisor)	Nat Science
31	Gen Ed: Global Contexts	3	Any approved Global Contexts course <sup>5</sup> (Upper-level)	Global Contexts
32	Concentration Requirements	3	IT 341 Data Communication and Network Principles	Major
33	Concentration Requirements	3	IT 343 IT Project Management	Major & Writing Intensive
34	Concentration Requirements	3	IT 451 Cloud Services Management	Major

35	Concentration Requirements	3	IT 461 Application Development in Cloud	Major
36	Core Program Requirements	3	BAS 490 Introduction to Research Methods <sup>6</sup> <b>OR</b> BAS 492 Capstone Development <sup>6</sup>	Major
37	Concentration Requirements	3	IT 442 Cloud Infrastructure	Major
38	Concentration Requirements	3	IT 481 Cloud Security	Major
39	Gen Ed: Natural Science with Lab	4	Any approved Natural Science with Lab course <sup>5</sup>	Nat Science
40	Core Program Requirements/Gen Ed: Apex	3	BAS 491 Applied Sciences Capstone <sup>6</sup> <b>OR</b> BAS 493 BAS Capstone <sup>6</sup>	Apex

**B.A.S. APPLIED SCIENCE -  
CLOUD COMPUTING DEGREE      120  
TOTAL**

**Important Academic Information:**

<sup>1</sup>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.

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

<sup>3</sup>MTH 161 is intended to prepare students to take MATH 108 Introductory Calculus with Business Applications at Mason. If students select a different math course to fulfill this AAS requirement, they will subsequently need to meet the MATH 108 prerequisite through either a successful math placement test score or successful completion of MATH 008. If students completed MTH 261 at NOVA, it will fulfill the MATH 108 requirement.

<sup>4</sup>Students with a conferred AAS degree and grades of C or higher in ITP 120 or ITP 150 will be granted substitutions for IT 106 and IT 109, respectively. These substitutions are available to BAS students only and will be processed by the BAS advisor upon matriculation to Mason.

<sup>5</sup>For approved Mason Core courses, please visit - <https://catalog.gmu.edu/mason-core/> .

<sup>6</sup>Students must select either BAS 490 and BAS 491 or BAS 492 and BAS 493.

**Additional General Notes & Resources:**

- To graduate in the BAS with a Cloud Computing concentration, students must have a C or better in their major core and concentration 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.