ADVANCE
A NOVA | MASON PARTNERSHIP

A.A.S Information Systems Technology/
B.A.S. Data Analytics Pathway
**2021-2022**

## A.A.S. Information Systems 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-#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 with a C or better.**
- **b. Complete the first college-level MTH course with a C or better.**

**ADVANCE Program-Specific Requirements:**

**If English is not your first language or you have completed ESL coursework, you must complete ENG 111 and ENG 112 to meet the English Language Proficiency requirement.**

**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 101** | 1 | SDV 100 College Success Skills **OR**<br>SDV 101 Orientation to Information Technology | UNIV 100 | General Elective |
| 2 | **ENG 111** | 3 | ENG 111 College Composition I | ENGH 101 | Written Comm |
| 3 | **ITD 110** | 3 | ITD 110 Web Design I | BAS XXX | Elective |
| 4 | **ITE 115 or ITE 119** | 3 | ITE 115 Intro to Computer Applications and Concepts **OR**<br>ITE 119 Information Literacy | IT 103<br>IT 104 | Info Tech |
| 5 | **ITN 100** | 3 | ITN 100 Intro to Telecommunications | See #14 | General Elective |
| 6 | **MTH 167 Required**<br>***(NOVA Catalog: MTH 154 or higher)*** | 5 | MTH 167 PreCalculus with Trigonometry[1] | MATH 105 | Prerequisite |
| 7 | **ITE 170** | 3 | ITE 170 Multimedia Software | IT --- | Major |
| 8 | **ITN 170** | 3 | ITN 170 Linux System Administration | IT --- | General Elective |
| 9 | **ITN 260** | 3 | ITN 260 Network Security Basics[2] | See #16 | General Elective |
| 10 | **ITP 100** | 3 | ITP 100 Software Design[2] | IT XXX | General Elective |
| 11 | **IT Elective #1** | 3 | IT Electives[4] | BAS XXX | General Elective |
| 12 | **IT Elective #2** | 3 | IT Electives[4] | BAS XXX | General Elective |
| 13 | **ITD 256** | 3 | ITD 256 Advanced Database Management | IT --- | Major |
| 14 | **ITE 221** | 3 | ITE 221 PC Hardware and OS Architecture[2] | IT 105 & IT XXX | Major |
| 15 | **ITP Programming Elective** | 4 | ITP 150 Python Programming[3] | IT 109 | Major |
| 16 | **IT Elective #3** | 3 | ITN 266 Network Security Layers[2] | IT 223 & IT XXX | General Elective |
| 17 | **IT Elective #4** | 3 | IT Electives[4] | BAS XXX | General Elective |

| | | | | | |
|---|---|---|---|---|---|
| 18 | **CST Course** | 3 | CST 100 Principles of Public Speaking **OR**<br>CST 110 Introduction to Communication | COMM 100<br>COMM 101 | Oral Comm |
| 19 | **IT Elective #5** | 3 | IT Electives[4] | BAS XXX | Major |
| 20 | **Humanities/Fine Arts** | 3 | ART 100 Art Appreciation **OR**<br>ART 101 History and Appreciation of Art I **OR**<br>ART 102 History and Appreciation of Art II **OR**<br>CST 130 Introduction to Theatre **OR**<br>CST 151 Film Appreciation I **OR**<br>MUS 121 Music Appreciation I | ARTH 101<br>ARTH 200<br>ARTH 201<br>THR 101<br>ENGH L372<br>MUSI 101 | Arts |
| 21 | **Social/Behavioral Sciences #1** | 3 | HIS 101 History of Western Civilization I **OR**<br>HIS 102 History of Western Civilization II **OR**<br>HIS 112 History of World Civilization II | HIST 101<br>HIST 102<br>HIST 125 | Western Civ |
| 22 | **Social/Behavioral Sciences #2** | 3 | ECO 201 Principles of Macroeconomics **OR**<br>GEO 210 Introduction to Cultural Geography **OR**<br>HIS 121 United States History I **OR**<br>PSY 200 Principles of Psychology **OR**<br>SOC 200 Principles of Sociology | ECON 104<br>GGS 103<br>HIST 121<br>PSYC 100<br>SOCI 101 | Soc/Behav |
| **A.A.S. INFO. SYSTEMS TECH. DEGREE TOTAL** | | **67** | | | |

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

## B.A.S. Applied Science - Data Analytics

| | MASON DEGREE REQUIREMENT | Credits | Course | MASON CORE/DEGREE EQUIVALENT |
|---|---|---|---|---|
| 23 | **Concentration Requirements** | 4 | MATH 113 Analytic Geometry and Calculus I ***(not needed if MTH 263 is completed at NOVA)*** | Major & Quant |
| 24 | **Gen Ed: Literature** | 3 | Approved Upper-level Literature Course[5] | Literature |
| 25 | **Core Requirements** | 3 | BAS 300 Building Professional Competencies | Major |
| 26 | **Concentration Requirements** | 3 | STAT 250 Introductory Statistics I | Major |
| 27 | **General Electives** | 3 | Upper-level Global Understanding[5] (See: Advisor) | Global |
| 28 | **Concentration Requirements** | 3 | IT 102 Discrete Structures | Major |
| 29 | **Gen Ed: Natural Science (Lab)** | 4 | Approved Natural Science with Lab[5] | Nat Science |
| 30 | **Concentration Requirements** | 3 | IT 343 Project Management | Writing Intensive |
| 31 | **Concentration Requirements** | 3 | STAT 350 Introductory Statistics II | Major |
| 32 | **Core Requirements** | 3 | BAS 490 Introduction to Research Methods | Major |
| 33 | **Gen Ed: Natural Science (Non-Lab)** | 3 | Approved Upper-level Natural Science without Lab[5] | Nat Science |
| 34 | **Concentration Requirements** | 3 | Applied Coursework (Upper-level, See: Advisor) | Major |
| 35 | **Concentration Requirements** | 3 | IT 209 Introduction to Object Oriented Programming | Major |
| 36 | **Concentration Requirements** | 3 | STAT 362 Introduction to Computer Statistical Packages | Major |
| 37 | **Gen Ed: Written Communication (Upper-level)** | 3 | ENGH 302 Advanced Composition | Written Comm |
| 38 | **Concentration Requirements** | 3 | STAT 463 Introduction to Exploratory Data Analysis | Major |
| 39 | **Concentration Requirements** | 3 | Applied Coursework (Upper-level, See: Advisor) | Major |
| 40 | **Concentration Requirements** | 3 | Applied Coursework (Upper-level, See: Advisor) | Major |
| 41 | **Concentration Requirements** | 3 | IT 309 Data Structures and Algorithms in Python | Major |
| 42 | **Core Requirements/Synthesis** | 3 | BAS 491 Applied Sciences Capstone | Synthesis |
| **B.A.S. APPLIED SCIENCE DEGREE TOTAL** | | **129** | | |

**Important Academic Information:**

[1]Students must earn a C or better in MTH 167 (MATH 105) to progress to MATH 113 at Mason. Students who place out of MTH 167 may take MTH 263.

[2]Students must take ITN 100 and ITE 221 in order to receive credit for IT 105. Students must take ITN 260 and ITN 266 in order to receive credit for IT 223.

[3]Students with a conferred AAS degree and a grade of C or better in ITP 150 will be granted a substitution for IT 109. This substitution is available to BAS students only, and will be processed by the BAS advisor upon matriculation to Mason.

[4]IT Electives must be met through any combination of IT courses (ITD, ITE, ITN, ITP) that are not already included in the degree.

[5]For approved Mason Core courses, please visit - https://catalog.gmu.edu/mason-core/

**Additional General Notes & Resources:**

- Students must have a C or better in any course that satisfies a prerequisite for an IT course. To graduate with the BAS with a Data Analytics concentration, students must have a C or better in their major core, concentration, and applied coursework 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.