

# ADVANCE

A NOVA | MASON PARTNERSHIP

A.A.S. Cybersecurity /  
B.A.S. Applied Science - Cyber Security  
Concentration Pathway  
**2020-2021**

## A.A.S. Cybersecurity

### ADVANCE Program Milestones

1. Students must take SDV 100 or SDV 101 in the first semester at NOVA.
2. Students must begin Developmental coursework in the first semester in ADVANCE at NOVA.
3. Students must take first college-level MTH course and ENG 111 in the semester immediately following the completion of any MTT or ENF courses (excluding summer).
4. 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.
5. Students must complete at least six degree-applicable credits with a C or better each fall and spring semester.
6. Students must maintain a 2.5 cumulative GPA.
7. Students must apply for NOVA graduation and complete their Associate's degree.

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 master's 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   | Elective                     |
| 2  | ENG 111                    | 3       | ENG 111 College Composition I   | ENGH 101   | Written Comm                 |
| 3  | MTH 154                    | 3       | MTH 154 Quantitative Reasoning  | MATH 106   | Quantitative                 |
| 4  | ITN 101 or 100             | 3       | ITN 100 Intro to Telecommunications   | See #9*  | Elective                     |
| 5  | ITP 100                    | 3       | ITP 100 Software Design   | IT XXX   | Major                        |
| 6  | Humanities/Fine Arts       | 3       | ART 100 Art Appreciation <b>OR</b><br>ART 101 History and Appreciation of Art I <b>OR</b><br>ART 102 History and Appreciation of Art II <b>OR</b><br>CST 130 Introduction to Theatre <b>OR</b><br>CST 151 Film Appreciation I <b>OR</b><br>MUS 121 Music Appreciation I   | ARTH 101<br>ARTH 200<br>ARTH 201<br>THR 101<br>ENGH L372<br>MUSI 101 | Arts                         |
| 7  | ITE 119                    | 3       | ITE 119 Information Literacy  | IT 104   | Major                        |
| 8  | ITN 106                    | 3       | ITN 106 Microcomputer Operating Systems   | BAS XXX  | Major                        |
| 9  | ITE 221                    | 3       | ITE 221 PC Hardware and OS Architecture   | IT 105 & IT XXX*   | Major                        |
| 10 | ITN 260                    | 3       | ITN 260 Network Security Basics   | See #19*   | Elective                     |
| 11 | Social/Behavioral Sciences | 3       | HIS 101 History of Western Civilization I <b>OR</b><br>HIS 102 History of Western Civilization II <b>OR</b><br>HIS 112 History of World Civilization II   | HIST 101<br>HIST 102<br>HIST 125                                     | Western Civ                  |
| 12 | ITN 200                    | 3       | ITN 200 Administration of Network Resources   | BAS XXX  | Major                        |
| 13 | CST Course                 | 3       | CST 100 Principles of Public Speaking <b>OR</b><br>CST 110 Introduction to Communication  | COMM 100<br>COMM 101   | Oral Comm                    |
| 14 | ITP Programming Elective   | 4       | ITP 112 Visual Basic.net I <b>OR</b><br>ITP 120 Java Programming I <b>OR</b><br>ITP 130 C Programming I <b>OR</b><br>ITP 132 C++ Programming I <b>OR</b><br>ITP 136 C# Programming I <b>OR</b><br>ITP 150 Python Programing <b>OR</b><br>ITP 225 Web Scripting Languages <b>OR</b><br>ITP 270 Programming for Cybersecurity | IT XXX   | Major                        |

|    |                      |   |   |                  |       |
|----|----------------------|---|---|------------------|-------|
| 15 | ITN 171 or ITN 170   | 3 | ITN 170 Linux System Administration <b>OR</b><br>ITN 171 Unix I | BAS XXX          | Major |
| 16 | ITN 261              | 4 | ITN 261 Network Attacks, Computer Crime and Hacking             | BAS XXX          | Major |
| 17 | ITN 262              | 4 | ITN 262 Network Communication, Security and Authentication      | BAS XXX          | Major |
| 18 | ITN 263              | 4 | ITN 263 Internet/Intranet Firewall and E-Commerce               | BAS XXX          | Major |
| 19 | ITN 266              | 3 | ITN 266 Network Security Layers                                 | IT 223 & IT XXX* | Major |
| 20 | ITN 276              | 3 | ITN 276 Computer Forensics I                                    | BAS XXX          | Major |
| 21 | IT Security Elective | 3 | ITN 267 Cyberlaw <b>OR</b><br>ITN 277 Computer Forensics II     | BAS XXX          | Major |

**A.A.S. CYBERSECURITY  
DEGREE TOTAL** 65

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

## B.A.S. Applied Science - Cyber Security Concentration

|    | MASON DEGREE<br>REQUIREMENT           | Credits | Course   | MASON<br>CORE/DEGREE<br>EQUIVALENT |
|----|---------------------------------------|---------|--|------------------------------------|
| 22 | Concentration Requirements            | 3       | IT 304 IT in the Global Economy                | Major                              |
| 23 | Concentration Requirements            | 3       | IT 357 Computer Crime, Forensics, and Auditing | Major                              |
| 24 | Core Requirements                     | 3       | BAS 300 Building Professional Competencies     | Major                              |
| 25 | Gen Ed: Literature                    | 3       | Approved Literature Course**                   | Literature                         |
| 26 | Gen Ed: Natural Science (Lab)         | 4       | Approved Natural Science with Lab**            | Nat Science                        |
| 27 | Concentration Requirements            | 3       | IT 429 Security Accreditation of Info Systems  | Major                              |
| 28 | Gen Ed: Written<br>Communication (UL) | 3       | ENGH 302 Advanced Composition                  | Written Comm                       |
| 29 | Technical Focus Courses               | 3       | Technical Focus Course - Upper-level***        | Major                              |
| 30 | Technical Focus Courses               | 3       | Technical Focus Course - Upper-level***        | Major                              |
| 31 | Gen Ed: Natural Science (Non-<br>Lab) | 3       | Approved Natural Science without Lab**         | Nat Science                        |
| 32 | Concentration Requirements            | 3       | IT 462 Information Security Principles         | Major                              |
| 33 | Concentration Requirements            | 3       | IT 343 Project Management                      | Writing Intensive                  |
| 34 | Technical Focus Courses               | 3       | Technical Focus Course - Upper-level***        | Major                              |
| 35 | Gen Ed: Social Science                | 3       | Approved Social Science Course**               | Soc/Behav                          |
| 36 | Core Requirements                     | 3       | BAS 490 Introduction to Research Methods       | Major                              |
| 37 | Technical Focus Courses               | 3       | Technical Focus Course - Upper-level***        | Major                              |
| 38 | Technical Focus Courses               | 3       | Technical Focus Course - Upper-level***        | Major                              |
| 39 | Gen Ed: Global<br>Understanding       | 3       | Approved Global Understanding Course**         | Global                             |
| 40 | Core<br>Requirements/Synthesis        | 3       | BAS 491 Applied Sciences Capstone              | Synthesis                          |

**B.A.S. APPLIED SCIENCE  
DEGREE TOTAL** 123

Denotes a course that must be taken at George Mason University. Please see your Success Coach to enroll.

\*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.

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

\*\*\*For approved Technical Focus courses, please visit: <https://catalog.gmu.edu/colleges-schools/interdisciplinary-programs-courses/applied-science-bas/#requirementstext>

Degree Note: 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 Cyber Security concentration, students must have a C or better in their core, concentration, and technical focus courses.

For academic policies and procedures, please see Mason catalog - <https://catalog.gmu.edu/policies/>

General Note: 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.

Students seeking a bachelor's degree must apply at least 45 credits of upper-level courses (numbered 300 or above) toward graduation requirements.