

## Associate of Applied Science Degree in Cybersecurity

**AREA:** Cybersecurity

**DEGREE:** Associate of Applied Science Degree

**LENGTH:** Four semesters (two-year) program

**PURPOSE:** The associate of applied science degree program (AAS) is designed for those who seek employment in the field of cybersecurity (information assurance), for those who are presently in IT or a security field and who desire to increase their knowledge and update their skills, and for those who must augment their abilities in other fields with knowledge and skills in information security. The curriculum is mapped to the Knowledge Units necessary for the NSA/DHS designation of LFCC as a Center of Academic Excellence—Two Year.

**OCCUPATIONAL OBJECTIVES:** The associate of applied science degree prepares students for careers in business, government and industry as information security specialists, cybersecurity analysts, cyber-defense penetration testers and entry-level digital forensics specialists.

**TRANSFER GUIDELINES:** Transfer is not the primary purpose of an A.A.S. program, but a transfer pathway necessary under the CAECD 2Y designation. LFCC has transfer agreements that facilitate the transfer of this degree to selected senior institutions. Students interested in transfer should contact their academic advisor early in the program for specific course requirements. However, certain requirements are as follows:

Students transferring to the BAS in Cybersecurity at GMU should take the following courses external to this degree program before transferring:

- One ITN, or ITP elective (3-4 credits); (ITN 208, ITP 120, ITP 220)
- ITE 115 (Variable credit corresponding to GMU IT 194: see advisor); or ITE 119
  - Recommending to take course prior to entering the degree program
- ENG 241 literature (Meet GMU's literature requirement)
- One social science elective from approved list on Page 41 (see note 4)

Science w/o lab requirement will need to be satisfied at GMU

**PROGRAM REQUIREMENTS:** The student must possess strong analytical problem-solving skills, strong written and verbal communications skills and must have good interpersonal skills. The curriculum contains highly technical courses consisting of theoretical concepts and practical applications applicable to the cybersecurity industry and government environment. Upon satisfactory

completion of the program, the graduate will be awarded the Associate of Applied Science in Cybersecurity.

Course#	Title	Credits
<b>First Semester</b>		
ENG 111	College Composition I	3
CST 110	Intro to Speech Communication	3
ITN 100	Introduction to Telecommunications	3
ITP 100	Software Design	3
MTH	Approved Math Elective <sup>1</sup>	3
SDV 101	Orientation to the IT Professions	1
	<b>Total</b>	<b>16</b>
<b>Second Semester</b>		
ENG 112	College Composition II	3
ITE 221	PC Hard. & Oper. Sys. Arch.	3
ITP	Programming Elective	4
ITN 170	Linux Administration	3
ITN 260	Network Security Basics	3
PED/HLT	Physical Education or Health	1
	<b>Total</b>	<b>17</b>
<b>Third Semester</b>		
	Approved Humanities/Fine Arts Elective <sup>2</sup>	3
	Approved Social Science Elective <sup>4</sup>	3
ITN 200	Administration of Network Resources	3
ITN 261	Network Attacks, Ethical Hacking	3
ITN 262	Network Communication Security	3
ITN 266	Network Security Layers	3
	<b>Total</b>	<b>18</b>
<b>Fourth Semester</b>		
ITN 263	Firewalls, VPNs and E-Com Security	3
ITN 267	Legal Issues in Network Security	3
ITN 276	Computer Forensics I	3
	Natural Science with Lab <sup>3</sup>	4
ITN/ITP	Networking/Programming Elective <sup>5</sup>	3
	<b>Total</b>	<b>16</b>
	<b>Program Total</b>	<b>67</b>

*IT courses used for this program may not be more than 6 years old, unless approved by division dean.*

<sup>1</sup>Students planning to transfer to a four-year college are encouraged to see advisor prior to math selection to ensure proper math required for the student's transfer institution. GWU requires math course with final grade of "C" or better.

<sup>2</sup>Students may select humanities elective from approved list on pg. 42. Students pursuing the Bachelor of Professional Studies in Cybersecurity at George Washington University are encouraged to take PHI, REL, ENG 200-level literature courses and foreign language 200-level courses. Students pursuing the Bachelor of Applied Science in Cybersecurity at George Mason University are encouraged to take, Art 100, Art 101, Art 102 (Fine Arts).

<sup>3</sup>If transferring to GMU/GWU, students may select Science with

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Laboratory (4 credit elective) from the approved list on page 42, except BIO 141/142 (Human Anatomy and Physiology).

<sup>4</sup>Students may select social science elective from approved list on page 42. Students pursuing the Bachelor of Applied Science degree at George Mason University are encouraged to Take HIS 101, HIS 102, or HIS 112 as their LFCC social science Elective. However, HIS 111 is transferrable as Global Understanding at GMU. Students pursuing the Bachelor of Professional Studies in Cybersecurity at George Washington are encouraged to take HIS 101, HIS 102, HIS 111 or HIS 112 as their LFCC social science elective. For this requirement, it is best for the student to discuss this with an LFCC advisor to ensure proper sequencing.

<sup>5</sup>Students may select one of the following courses:  
ITP 120, ITP 220, ITN 106, CSC 201, CSC 202

### **SPECIAL NOTES**

Students planning on transferring to GMU's BAS in Cybersecurity must have completed the AAS in Cybersecurity degree with a minimum 2.0 GPA. GMU has waived the age requirements for the BAS in Cybersecurity degree. Students should meet with the GMU academic advisor to sign the BAS Age Waiver form.

GWU requires that all transfer credits have a C or better and the GPA to be at least 2.7.

Earning the CAECD-2Y designation on a student's transcript requires a 3.5 GPA in the core cybersecurity program courses (ITE 221, ITN 100, ITN 260, ITN 261, ITN 262, ITN 263, ITN 266, ITN 267).

This does not constitute a guarantee of admission or transferability, as this is a guideline based on the most recent information provided to us by our senior institution partners. Students should check with the advisors at the senior institution into which they intend to transfer prior to applying for admission.