ACC
Technology Pathway

The Cybersecurity program prepares individuals to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation and maintenance of security devices, systems, and procedures. Upon successful completion of the program, students will have the needed background to prepare to take a number of industry certifications in the field of cybersecurity. Examples include but not limited to: CompTIA Network+; CompTIA Security+; CompTIA Linux +, MTA (Microsoft Technology Associate) and/or MCSA (Microsoft Certified Solutions Associate); and CompTIA Advanced Security Practitioner (CASP).

The Cybersecurity Degree will be offered at the Collaboration Campus. ACC has a transfer articulation with CSU Pueblo, under which students are guaranteed a junior standing with no more than 61 credits to meet the graduation requirements for a bachelor degree in Computer Information Systems-Cybersecurity Concentration issued by CSU-Pueblo. In order to achieve this, students must be dually enrolled at ACC and CSU-Pueblo during AAS coursework and work with an advisor for correct course sequencing.

Required Courses	Credits	Pre or Co Reqs Rqd	Course Availability		
			Fall	Spr	Sum
General Education Courses					
• BUS 217 - Business Communication & Report Writing	3	☐	☑	☑	☑
• BUS 226 - Business Statistics	3	☐	☑	☑	☑
• ENG 121 - English Composition I: GT-CO1*	3	☐	☑	☑	☑
• MAT 121 - College Algebra: GT-MA1*	4	☐	☑	☑	☑
• PHI 113 - Logic: GT-AH3*	3	☐	☑	☑	☑
Major Courses					
• BUS 121 - Basic Workplace Skills	1	☐	☐	☑	☐
• CIS 287 - Cooperative Education	3	☐	☑	☑	☑
• CNG 124 - Networking I: Network +	3	☐	☑	☑	☑
• CNG 125 - Networking II: Network +	3	☑	☑	☑	☐
• CNG 132 - Network Security Fundamentals	3	☑	☑	☑	☐
• CNG 202 - Unix/Linux Server Admin	3	☐	☑	☐	☐
• CNG 253 - Firewalls and How They Work	3	☑	☑	☑	☐
• CNG 256 - Vulnerability Assessment I	3	☑	☑	☐	☐
• CNG 259 - Enterprise Security	4	☑	☐	☑	☐
• CSC 119 - Introduction to Programming	3	☐	☑	☑	☑
Additional Required Courses					
• CIS 220 - Fundamentals of UNIX (OR CIS 315 - UNIX Operating System: CSU Course**)	3	☐	☑	☑	☐
• CIS 232 - Unix Shell Programming OR CSC 160 - Computer Science I	3	☑	☑	☑	☐
• CNG 212 - Configuring Windows Server (OR CIS 401 - Network Systems Administration: CSU Course**)	3	☐	☑	☑	☐
• CNG 258 - Digital Forensics (OR CIS 462 - Computer Forensics: CSU Course**)	3	☐	☐	☑	☐
• Restricted Elective (See Notes for specific requirements)***	3	☐	☑	☑	☑

Pre-Requisities, Co-Requisites, and Recommendations (grade C or better required)

Where requirements are listed as course categories (e.g. Electives, Arts/Humanities) rather than as specific courses, please note that depending upon course choice, pre-requisites may be required.

CNG 125 - Networking II: Network +
- Pre-Requisite: CNG 124 - Networking I: Network +

CNG 132 - Network Security Fundamentals
- Pre-Requisite: CNG 124 - Networking I: Network +

CNG 253 - Firewalls and How They Work
- Pre-Requisite: CNG 132 - Network Security Fundamentals

CIS 232 - Unix Shell Programming OR CSC 160 - Computer Science I
- Pre-Requisite: For CSC 160: CSC 119 - Introduction to Programming
- Pre-Requisite: For CSC 160: MAT 055 - Algebraic Literacy or Higher

CNG 256 - Vulnerability Assessment I
- Pre-Requisite: CNG 132 - Network Security Fundamentals

CNG 259 - Enterprise Security
- Pre-Requisite: CNG 132 - Network Security Fundamentals
- Pre-Requisite: CNG 256 - Vulnerability Assessment I

Program Outcomes

- Evaluate the computer network and information security needs of an organization.
- Implement security measures for the protection of computer networks and the information of an organization.
- Develop and design a security infrastructure based on the business requirements of an organization.
- Troubleshoot, maintain and update an enterprise-level information security system.

Notes

- * This course requires college level readiness as measured by Accuplacer, ACT, or SAT scores; approved high school course work that is less than five years old; or successful completion of appropriate college-readiness course.
- ** These courses are recommended for students who intend to transfer to CSU to earn a baccalaureate degree in Computer Information Systems - Cybersecurity Concentration.
- ***Restricted Electives - choose one of the following courses: CNG 142, CNG 243, CSC 160, CNG 121, OR CIS 461 (CSU Course**).
- AAA 101 – College 101: Student Experience is required for all new college students seeking degrees or transfer.

Graduation Requirements

- All courses required for this degree must be completed with a "C" or better to be considered for transfer to another institution.
- Apply for graduation online at www.arapahoe.edu/graduation.
- As a graduate of a Career and Technical Education program you will be contacted by an ACC employee in approximately six months to verify your employment information. This information gathering is a federal requirement to ensure that ACC receives certain f

RECOMMENDED COURSE SEQUENCE FULL-TIME TRACK

Year 1: Fall	Credits	Course
	3	CNG 124 - Networking I: Network +
	3	CSC 119 - Introduction to Programming
	3	ENG 121 - English Composition I: GT-CO1
	3	PHI 113 - Logic: GT-AH3
Year 1: Spring	**Credits**	**Course**
	1	BUS 121 - Basic Workplace Skills
	3	CIS 220 - Fundamentals of UNIX (OR CIS 315 - UNIX Operating System: CSU Course**)
	3	CIS 232 - Unix Shell Programming OR CSC 160 - Computer Science I
	3	CNG 125 - Networking II: Network +
	3	CNG 132 - Network Security Fundamentals
	4	MAT 121 - College Algebra: GT-MA1
Year 2: Fall	**Credits**	**Course**
	3	BUS 226 - Business Statistics
	3	CNG 202 - Unix/Linux Server Admin
	3	CNG 212 - Configuring Windows Server (OR CIS 401 - Network Systems Administration: CSU Course**)
	3	CNG 253 - Firewalls and How They Work
	3	CNG 256 - Vulnerability Assessment I
Year 2: Spring	**Credits**	**Course**
	3	BUS 217 - Business Communication & Report Writing
	3	CIS 287 - Cooperative Education
	3	CNG 258 - Digital Forensics (OR CIS 462 - Computer Forensics: CSU Course**)
	4	CNG 259 - Enterprise Security
	3	Restricted Elective
		~Recommended Restricted Elective(s)~
		CIS 461 - Management of IT Security Risk (CSU Course**)
		CSC 160 - Computer Science I: Java*

RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

Year 1: Fall	Credits	Course
	3	CNG 124 - Networking I: Network +
	3	CSC 119 - Introduction to Programming
	3	ENG 121 - English Composition I: GT-CO1
Year 1: Spring	**Credits**	**Course**
	3	CIS 220 - Fundamentals of UNIX (OR CIS 315 - UNIX Operating System: CSU Course**)
	3	CIS 232 - Unix Shell Programming OR CSC 160 - Computer Science I
	4	MAT 121 - College Algebra: GT-MA1
Year 1: Summer	**Credits**	**Course**
	3	BUS 217 - Business Communication & Report Writing
Year 2: Fall	**Credits**	**Course**
	3	CNG 202 - Unix/Linux Server Admin
	3	CNG 212 - Configuring Windows Server (OR CIS 401 - Network Systems Administration: CSU Course**)
	3	Restricted Elective ~Recommended Restricted Elective(s)~ CIS 461 - Management of IT Security Risk (CSU Course**) CSC 160 - Computer Science I: Java*
Year 2: Spring	**Credits**	**Course**
	3	BUS 226 - Business Statistics
	3	CNG 125 - Networking II: Network +
	3	CNG 132 - Network Security Fundamentals
Year 2: Summer	**Credits**	**Course**
	3	PHI 113 - Logic: GT-AH3
Year 3: Fall	**Credits**	**Course**
	1	BUS 121 - Basic Workplace Skills
	3	CNG 253 - Firewalls and How They Work
	3	CNG 256 - Vulnerability Assessment I
Year 3: Spring	**Credits**	**Course**
	3	CIS 287 - Cooperative Education
	3	CNG 258 - Digital Forensics (OR CIS 462 - Computer Forensics: CSU Course**)
	4	CNG 259 - Enterprise Security