Certificate/Associates Degree (AS) - IT Cybersecurity 21-22
Recommended Program Sequence

Term 1 (Fall/Spring: Max. 19 units, 12-15 units recommended)		Units
Prog. Elective: CA 107, Microcomputer Hardware & Software Support		3
CA 157, Introduction to Linux		3
AVC G.E. Area D1	ENGL 101	3
AVC G.E. Area E	#HD 101	3
Electives:	#BIP 110, 120, 130	3
#Recommended	Total	15

Term 2 (Fall/Spring: Max. 19 units, 12-15 units recommended)		Units
CA 170, Virtualization and Cloud Essentials		3
CA 171, Introduction to Networking		3
AVC G.E. Area D2	#MATH 102 or higher	4
Electives:	#CA 153	3
	Total	13

Term 3 - Summer: Max. 15 units, 12 units recommended		Units
AVC G.E. Area C	#MUSC 102	3
AVC G.E. Area B	#POLS 101	3
	Total	6

Term 3 (Fall/Spring: Max. 19 units, 12-15 units recommended)		Units
CA 175, Administering Windows Server		3
CA 182, Network Security - CCNA Security		3
CA 183, Security Counter Measures		3
AVC G.E. Area A	#BIOL 104	3
	Total	12

Term 4 (Fall/Spring: Max. 19 units, 12-15 units recommended)		Units
#CA 165+, Digital Forensics Fundamentals		3
Prog. Electives: # CA 179, Cybersecurity Operations - CCNA-		3
Prog. Electives: # CA 185, Network Security - CCNA Security		3
AVC G.E. Area F	#BUS 212	3
	Total	12

Graduate

Take Summer classes if needed to complete the program in a timely manner.

The state requires all students to have a Comprehensive Educational Plan. Make a counseling appointment as soon as enrollment is established on any term. Come by the Counseling Center or call. Online Counseling is available: https://www.avc.edu/studentservices/counseling

IT Cybersecurity Certificates Required Courses:	Units
CA 157, Introduction to Linux (Formerly CIS 157)	3
CA 165+, Digital Forensics Fundamentals ***or***	3
CA 166, Cloud Security Fundamentals	
CA 170, Virtualization and Cloud Essentials	3
CA 171, Introduction to Networking	3
CA 175, Administering Windows Server	3
CA 182, Network Security - CCNA Security	3
CA 183, Security Counter Measures	3
21 units for the certificate, 30 units for the degree - Total Units:	21

Program Electives: (complete 9 units for the Major only)

CA 107, Microcomputer Hardware and Software Support	3
CA 131, Relational Database Management and Design	3
CA 159, SUSE Linux Server Administration	3
CA 176,Windows Server Networking	3
CA 179, Cybersecurity Operations -CCNA-Cyberops	3
CA 185, Network Security - CCNA Security	3

Other Requirements:

- Minimum grade of "C" required on each course
- Refer to catalog or online website for course listings and descriptions
- A maximum of 6 pass/no pass units will be accepted for this certificate

Program Learning Outcomes

1. Describe the three common Security Operations Center types, the different tools used by the SOC analysts, the different job roles within the Security Operations Center, and incident analysis within a threatcentric Security Operations Center.
2. Demonstrate an understanding of the concepts of computer forensics and summarize how to prepare for a computer investigation.
3. Identify various cloud interface standards and protocols for building a cloud infrastructure using the cloud computing reference model.

Students who complete the IT Cybersecurity certificate have enhanced employability in cyber security and computer networking, and in a similarly titled positions. The IT Cybersecurity certificate prepares students to begin a career working with associate-level cybersecurity analysts within security operations centers where responsibilities include detecting cybersecurity breaches and effectively responding to security incidents.

• **Residency**: Minimum of 12 units completed at AVC with a minimum of 9 of those units completed from the certificate/major. (credit earned by examination will not be included in these 12 units) Title 5, Section 54000:http://ccr.oal.ca.gov

Requirements for Two or More Associate Degrees: To be eligible for multiple associate degrees, a student must have completed all of the graduation requirements for each degree.

Transfer: Students planning to continue studies at a four-year college or university after AVC should visit the Transfer Resource Center or the Counseling Center and consult with a counselor as soon as possible to develop a plan of studies. Additional preparation for the major information on official transfer articulation agreements from AVC to many CSU/UC campuses can be found at the following Web site: www.assist.org

The "**Catalog Rights Policy**" sets forth the criteria used for determining the degree requirements under which students may graduate. Please refer to the AVC Catalog for a detailed description or consult with a counselor.

Advisory: A condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program.

Prerequisite: A condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program. Prerequisites are enforced and a student will be blocked from enrolling or involuntarily dropped after enrolling if the student does not meet the stated prerequisite. A student must complete a course prerequisite with a satisfactory grade of A, B, C or P (pass).

Corequisite: A condition of enrollment consisting of a course that a student is required to simultaneously take in order to enroll in another course. Corequisites are enforced and a student will be blocked from enrolling if the student does not meet the stated corequisite.