

# CYBERSECURITY, ASSOCIATE OF SCIENCE DEGREE

**Banner Code:** 3\_AS\_CYBR2

**Control Number:** 20382

**Financial Aid Eligible**

The courses in this program provide students with a solid foundation in the tools, techniques, and procedures used by cybersecurity professionals. The program is designed to prepare students with the knowledge of emerging trends in cybersecurity and the skills needed for an entry-level career or advancement. Provides preparation for careers such as Cybersecurity Specialist, Information Security Analyst, Cyber Crime Analyst, Incident and Intrusion Analyst, and Vulnerability Analyst for a variety of industries including manufacturing, national security, finance, insurance, and health care. Topics include computer networking fundamentals, computer and network security, ethical hacking principles and methodology, digital forensics techniques, introductory programming, server administration, and security policies and procedures to build cyber resilience. The program courses include hands-on and technical writing assignments to help students develop in-demand skills for the cybersecurity workforce.

## Program Level Student Learning Outcomes

Upon completion of this program, students will be able to:

1. Evaluate and communicate the human role in security systems with an emphasis on ethics, social engineering vulnerabilities, and training.
2. Assess security risks and identify methods to minimize their threat and/or impact.
3. Demonstrate the ability to locate technical resources to resolve security-related issues with networking hardware and software.
4. Apply risk management concepts to develop policies and procedures following security best practices.

Review Graduation Requirements (<https://catalog.cccd.edu/coastline/graduation-requirements/associate-degree/>) and General Education (<https://catalog.cccd.edu/coastline/general-education/>).

Course	Title	Units
<b>Required Core</b>		
Complete the following:		
CYBR C101	Introduction to Cybersecurity	3
IT C128	Computer Networking Principles (Network +)	3
IT C158	Contemporary Operating Systems (Server+)	3
CIS C157	Introduction to Python Programming	3
CYBR C230	Network Security (Security+)	3
<b>Program Electives</b>		
Select four courses of the following specialized areas:		12
CYBR C132	Introduction to Ethical Hacking	
CYBR C150	Introduction to Digital Forensics	
CYBR C160	Introduction to Incident Response	
CYBR C170	Cybercrime and CSIRT Coordination	

Course	Title	Units
CYBR C225	Cybersecurity Governance, Risk, and Compliance	
CYBR C234	Web Application Security	
CYBR C242	Vulnerability Assessment (PenTest+)	
CYBR C250	Intermediate Digital Forensics	
CYBR C255	Cybersecurity Analyst (CySA+)	
CYBR C256	Mobile Device Forensics	
CYBR C260	Intermediate Incident Response	
CYBR C270	Certified Information Systems Security Professional	
CYBR C280	Emerging Trends in Cybersecurity	
IT C191	Linux Operating System Principles (Linux+)	
<i>Units Required for Major</i>		27
Local General Education, CSU General education, or IGETC pattern		varies
Electives to Satisfy Unit Requirement		varies
<b>Total Units</b>		<b>60</b>