NETWORK DEFENSE CERTIFICATE OF ACHIEVEMENT

This certificate provides graduates with the skills needed to defend networks and information systems against cyber-attacks. Students receive extensive hands-on experience and develop the knowledge and abilities necessary to succeed in protection of an organization's data and operations. It is a rigorous program designed to help students master the fundamentals of cybersecurity by applying industry-accepted and emerging practices to solve real-world security problems. Upon completion of the program, students will be able to evaluate security trends, recognize best practices, and understand Information Technology security products and threats. This program also provides preparation for several nationally recognized, high demand certifications in the field of Cybersecurity.

Required Courses:		Units
CSC 116	Information and Communication Technology Essentials	4
CSC 117	Computer Network Fundamentals	3
CSC 118	Introduction to Information Systems Security	3
CSC 152	Network OS and Administration	3
CSC 154	Network Security	3
CSC 161	Cloud Infrastructure and Security	3
CSC 221	Programming and Algorithms I	3

Plus 3 additional units selected from the following:		Units
BUS 107	Customer Service	3
BUS 134	Human Relations in Business	3
BUS 170	Business Communication Skills for Managers	3

Total units required for Certificate	**25**

Program Level Student Learning Outcomes:
1. Apply strategies for network defense using firewalls, routers, switches, and anti-malware tools.
2. Define best practices for configuring cyber defense and countermeasures.
3. Compare and contrast the benefits of firewalls vs. intrusion detection devices and software.
4. Apply cyber defense and countermeasures as appropriate to mitigate potential risks.
5. Design organizational plans for securing data and while maintaining the confidentiality, integrity, and availability (CIA) of the information transmitted over communication networks.

Career Opportunities in COMPUTER SCIENCE

This program prepares students for careers in the Cybersecurity field. Some common job titles and careers for this certificate include IT Security analyst, security operations center (SOC) analyst, vulnerability analyst, cybersecurity specialist, Threat intelligence analyst, security engineer, and cybersecurity analyst.