Program Planning Guide
Network Security Certificate (C25590SE)

Program Length: 3 semesters
Career Pathway Options: Associate in Applied Science in Information Technology Network Management; Diploma in Information Technology Network Management; Certificate in Network Security
Program Sites: Lee Main Campus (Evening, Selected Distance, Day- Schedule differs)

Suggested Course Schedule:		HOURS			Grade	Semester	Notes
		Class	Lab	Credit			
1st Semester (Fall)							
CTI 120	Network and SEC Foundation	2	2	3			
NET 125	Networking Basics	1	4	3			
		3	6	6			
2nd Semester (Spring)							
NET 126	Routing Basics	1	4	3			
NET 225	Routing & Switching I	1	4	3			
		2	8	6			
3rd Semester (Fall)							
SEC 160	Security Fundamentals I	2	2	3			
		2	2	3			

Total Semester Hours Credit: 15

Course Descriptions:

CTI 120   Network and SEC Foundation   2-2-3
This course introduces students to the Network concepts, including networking terminology and protocols, local and wide area networks, and network standards, Emphasis is placed on securing information systems and the various implementation policies. Upon completion, students should be able to perform basic tasks related to networking mathematics, terminology, media and protocols.

NET 125   Networking Basics   1-4-3
This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

NET 126   Routing Basics   1-4-3
Local Prerequisite: NET 125
This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.

NET 225   Routing and Switching I   1-4-3
Local Prerequisite: NET 126
This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in prerequisite courses. Upon completion, students should be able to perform tasks related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.

SEC 160   Security Administration I   2-2-3
Local Prerequisite: NET 125
This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.