COMPUTER SECURITY AND NETWORKING - ASSOCIATE IN SCIENCE

Plan Code: 2125

The degree is designed to provide students with a professional, current, and strategically designed set of classes to secure entry level employment in IT, networking, wireless, and security administration or to benefit them in the transfer to related four-year degree program.

Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Install, configure, manage and troubleshoot a small office or home office network (wired or wireless).
- Secure wired and wireless networks.
- Install, configure and manage client and server operating systems.
- Harden servers against intrusion.

Program Requirements

This degree requires the completion of General Education coursework plus the following:

Code Number	Course Title	Units
REQUIRED COURSES		
BCOM 15	Business Communications	3
COSA 50	Intro to IT Concepts and Applications	4
COSN 5	Computer Hardware Fundamentals	4
COSN 10	Networking Fundamentals	3
COSN 205	UNIX/LINUX Fundamentals	4
COSN 225	Microsoft Windows Client	3
COSN 299	Security and Networking Capstone	4
COSS 71	Network Security Fundamentals	3
Subtotal Units		**28**
IN ADDITION, complete ONE (1) course from the following:		
BCOM 222	Job Search Skills (3)	
COSA 210	Intro to Project Management for IT (3)	
COSE 271WE	Work Experience-Comp & Office Studies (1-4)	
COSN 200	Wireless and Mobile Devices (3)	
COSN 210	LINUX Server Administration (4)	
COSN 215	LINUX Networking and Security (4)	
COSN 230	Microsoft Windows Server (4)	
COSN 250	Cloud Computing in Amazon Web Services (3)	
COSP 8	Visual Basic Programming (4)	
COSS 272	Computer Forensics and Investigation (3)	
COSS 273	Ethical Hacking and Countermeasures (4)	
CS 11	Introduction to Computer Science- C++ (3)	
CS 21	Introduction to Computer Science-Java (3)	
Subtotal Units		**1-4**
Required Subtotal		**29-32**

Complete one of the following: [1]		19-39
LBCC General Education (Plan A) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-a/)		
CSU GE Breadth (Plan B) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-b/)		
IGETC Pattern (Plan C) (https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/)		
Electives (as needed to reach 60 degree-applicable units) [2]		
Minimum Degree Total		**60**

[1] Units for the major may be double-counted for LBCC GE, CSU GE, or IGETC; see counselor for limitations.

[2] Elective units from course(s) numbered 1-599, if needed, to reach 60 degree-applicable units.

COMPUTER SECURITY AND NETWORKING - CERTIFICATE OF ACHIEVEMENT

Plan Code: 3125

This program provides learners with the necessary skills to enter the Computer Networking and Security field.

Program Student Learning Outcomes

- Install, configure, manage, and troubleshoot a small office/home office network (wired or wireless).
- Secure wired and wireless networks.
- Install, configure, and manage client and server operating systems.
- Harden servers against intrusion.

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
BCOM 15	Business Communications	3
COSA 50	Intro to IT Concepts and Applications	4
COSN 5	Computer Hardware Fundamentals	4
COSN 10	Networking Fundamentals	3
COSN 205	UNIX/LINUX Fundamentals	4
COSN 225	Microsoft Windows Client	3
COSN 299	Security and Networking Capstone	4
COSS 71	Network Security Fundamentals	3
Subtotal Units		**28**
IN ADDITION, complete ONE (1) course from the following:		
BCOM 222	Job Search Skills (3)	
COSA 210	Intro to Project Management for IT (3)	
COSE 271WE	Work Experience-Comp & Office Studies (1-4)	
COSN 200	Wireless and Mobile Devices (3)	
COSN 210	LINUX Server Administration (4)	
COSN 215	LINUX Networking and Security (4)	
COSN 230	Microsoft Windows Server (4)	
COSN 250	Cloud Computing in Amazon Web Services (3)	
COSP 8	Visual Basic Programming (4)	
COSS 272	Computer Forensics and Investigation (3)	
COSS 273	Ethical Hacking and Countermeasures (4)	
CS 11	Introduction to Computer Science- C++ (3)	
CS 21	Introduction to Computer Science-Java (3)	
Subtotal Units		**1-4**
Total Units		**29-32**

COMPUTER NETWORKING TECHNICIAN - CERTIFICATE OF ACCOMPLISHMENT

Plan Code: 4125

Students learn the in-demand skills for running wired and wireless networks and prepare for a career in IT.

Program Student Learning Outcomes

- Distinguish the differences between local area networks and wide area networks from a hardware and protocol point of view.
- Compare and contrast various wired and wireless networking technologies.

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
COSN 5	Computer Hardware Fundamentals	4
COSN 10	Networking Fundamentals	3
Total Units		**7**