Lehigh Carbon COMMUNITY COLLEGE

Computer Specialist – Network Technology and Security A.A.S. (CST)

This program prepares students who are new to the industry or upgrading an existing skill set for jobs in the networking, telecommunications and cyber security fields. Graduates are eligible to take appropriate certification exams and can expect to work as entry-level engineers, administrators, or help desk technicians. The program has a problem-based learning approach that focuses on the needed skills of design, implementation, and troubleshooting to a variety of implementations and platforms such as Microsoft Windows, Linux and Cisco. Our hands-on philosophy starts with ensuring basic understanding from the hardware level up.

Students wishing to obtain certifications will gain a solid foundation in the material covered on the following exams:

- Comptia A+, Network+, Linux+ and Security+
- Microsoft Azure Administrator (AZ-104)
- Microsoft Managing Modern Desktops (MD-101)
- Cisco Certified Network Association (CCNA)
- CEH - Certified Ethical Hacker

Upon successful completion of this program, graduates will be able to:

- troubleshoot and fix personal computer hardware and software problems.
- deploy, configure and maintain physical and cloud network deployments.
- describe TCP/IP subnet masking and demonstrate its application.
- determine, design and implement network solutions for a given situation.
- configure enterprise-level network devices such as routers, switches and wireless network antenna.
- manage user accounts for access and to maintain a secure network environment.
- evaluate security vulnerabilities and implement appropriate solutions.
- create a strategy to enter the workplace.

Designated DHS/NSA Center of Academic Excellence in Cyber Defense

First Semester

		Credits
CIS 105	Introduction to Computers and Applications	3
ENG 105	Research and Composition	3
MAT 120	Survey of Mathematics	3
NET 111	CompTIA A+ (Core 1 Hardware/desktops and mobile devices)	3.5
Elective	Social Science/Humanities	3
		15.5

Second Semester

NET 110	CompTIA Net+ (Network Essentials)	3.5
NET 121	CompTIA A+ (Core 2 Software/user support)	3.5
NET 210	CompTIA Linux+ (Installation and administration)	3.5
NET 240	Cisco CCNA 200-301 Part 1 (Implementing Cisco Technologies)	3.5
		14

Summer Session

ENG 107	Writing in the Workplace	3
NET 161	Scripting for Security	3
		6

Third Semester

NET 151	Microsoft Modern Desktop (Exam MD-101)	3.5
NET 171	Microsoft Azure Administrator	3.5
NET 241	Cisco CCNA 200-301 Part 2 (Administering Cisco Technologies)	3.5
CFS 155	CompTIA Security+ (Cybersecurity Essentials)	3.5
		14

Fourth Semester

CFS 206	Ethical Hacker	3.5
NET 242	Cisco CCNA 200-301 Part 3 (Advanced Cisco Technologies)	3.5
NET 265	Capstone for IT Professionals	1
Elective	Science	3-4
Elective	Social Science/Humanities	3
		14-15
	Credit Total	**63.5**

Students must have access to a Windows 10 or greater computer.

Students intending to transfer to a four-year college or university are advised to consult that institution's catalog to determine the appropriate mathematics and English sequence and transferability of courses.

Prior Learning Assessment: Previous job training, certificates and work experience that may qualify for college credit *(see academic advisor)*.

Gateway Courses: Based on placement testing in reading, writing and math, these prerequisite courses may have to be taken before placement in College English or Mathematics beginning the first semester and concurrently.

RSS 099	Basic Skills Reading	3
RSS 100	Critical Reading	3
ENG 099	Basic Skills Writing	3
ENG 100	Fundamentals of Writing	3
MAT 090	Mathematical Literacy	6
ESL 251	English for Academic Purpose	6
	(Required for ESL students only.)	

Please note, taking gateway courses will increase your time for completion.