# Hunter Business School Program Offerings



## **COMPUTER TECHNICIAN NETWORKING SPECIALIST**

(Levittown & Medford) Day Program - 7.5 Months - 900 Hours Diploma Program

Eve Program - 15 Months - 900 Hours Diploma Program

Hunter Business School's CTNS program curriculum has been updated and revised to remain current with this field's best professional practices. The Program's goal remains the same, 'to prepare students for entry level positions in the fields of computers and networking.' Several new, exciting curriculum changes have been incorporated. Students enrolled in this program are prepared to take the CompTIA A+ and Network+ certification exams. Below is a comparison table listing side-by-side the current courses that are offered in the CTNS program & the new courses that will be offered beginning July 10, 2018.





CURRENT CURRICULUM			NEW CURRICULUM (AS OF 7.10.18)		
COURSE #	COURSE TITLE	HRS.	COURSE #	COURSE TITLE	HRS.
CTNS100	Electronic Principles	150	CTNS101	Introduction to Electronics	120
CTNS110	Digital & Binary Electronics/Computers	90	CTNS102	Digital Technology & Network Cabling	120
CTNS200	Intro to Computers & Computer Service Support	90	CTNS201	Fundamentals of Computer Technology	90
CTNS210	Motherboards, Form Factors, Processors & Memory	120	CTNS202	Windows Installation & Support	120
CTNS220	I/O Service Support, Hard Drives, Multimedia, Maintenance & Troubleshooting	120	CTNS203	Maintaining Operating Systems and Virtualization	120
CTNS230	Installing, Maintaining, Troubleshooting & Optimizing windows	150	CTNS301	Introduction to Networking	120
CTNS240	Networking/Security Essentials & Practices	132	CTNS302	Networking Infrastructure	120
CTNS250	Supporting Notebooks & Printers	48	CTNS303	Network Communications, Security & Performance	90
TOTAL		900	TOTAL		900

I acknowledge that I have read and understand the above information regarding the curriculum changes that have been made to the Computer Technician Networking Specialist (CTNS) program.

**Student Signature** 

Date

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit our website at: <u>www.HunterBusinessSchool.edu/consumerinfo</u>

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## COMPUTER TECHNICIAN NETWORKING SPECIALIST

(Levittown & Medford) Day Program - 7.5 Months - 900 Hours Diploma Program

Eve Program - 15 Months - 900 Hours Diploma Program

The Computer Technician Networking Specialist program is designed to prepare students for entry level positions in the fields of computers and networking. Students will learn a number of service and repair techniques to fix hardware and software problems, as well as build, support, upgrade and secure computers on a SOHO (small office home office) network in the classroom. Each CTNS student will build their own computer to be used in the classroom throughout the program. The networking component of the program includes configuration, management, and troubleshooting of common wired and wireless network devices. Also included are emerging technologies such as unified communications, mobile, cloud and virtualization technologies, and administration of a domain through a Windows Server using Active Directory. The basic security component discusses network security, compliance and operation security, and threats and vulnerabilities. Program hours are distributed between a combination of lecture and practical hands-on lab, with an emphasis on the practical application of theory. Students enrolled in this program are prepared to take the CompTIA A+ and Network+ certification exams.





Course	Course Title	Hrs.					
Electronics and Digital Technology							
CTNS101	Introduction to Electronics	120					
CTNS102	Digital Technology & Network Cabling	120					
Computer Technology							
CTNS201	Fundamentals of Computer Technology	90					
CTNS202	Windows Installation & Support	120					
CTNS203	Maintaining Operating Systems and Virtualization	120					
Networking							
CTNS301	Introduction to Networking	120					
CTNS302	Networking Infrastructure	120					
CTNS303	Network Communications, Security & Performance	90					
	TOTAL	900					

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### Course Descriptions: Computer Technician Networking Specialist Program

#### CTNS101 – Introduction to Electronics -120 hours

During this course students will be introduced to the fundamentals of electricity, current, voltage, resistance, Ohms Law, power, and printed circuit boards. The course is designed to teach students the principles of binary number systems, logic gates, arithmetic operations, shift registers, memory, logic counters and clock and timing circuits. Students will learn the construction of digital logic circuits from simple counters to complex microprocessors and discover how simple logic gates can be used to produce complex digital systems.

Prerequisite: None

#### CTNS102 – Digital Technology and Network Cabling – 120 hours

During this course students will be introduced to Binary Number Systems and Basic Logic Gates. Students will also learn basic data transmission concepts, including throughput, bandwidth, multiplexing, and common transmission flaws. Upon completion of this course students will be able to identify and describe the physical characteristics and official standards of coaxial cable, twisted-pair cable, and fiber optic cable, their related connectors as well as describe the benefits and limitations of various networking media and select and use the appropriate tool to troubleshoot common cable problems.

#### CTNS201 – fundamentals of Computer Technology – 90 hours

During this course students will learn how each subsystem accomplishes its tasks and is connected to form a complete computer system. Students will learn the importance of motherboards and supporting microprocessors, form factors used by cases, working inside cases with safely, power supplies, and how hardware and software interface with each other in order to gain an understanding of the various ways they interact. Students will become proficient in selecting components for building a computer and how to install and upgrade the processor and memory modules.

#### CTNS202 – Windows Installation & Support – 120 hours

During this course students will learn how to select and install the different types of hard drives and how to troubleshoot hard drive problems. How Microsoft Windows provides the interface between users and applications and between applications and hardware devices, how Windows connects to a network and accesses resources on the network, about user accounts and how to create and manage them. Students will learn how to install Microsoft Windows, use Devise manager to install and troubleshoot I/O devices, adapter cards and how to support the video subsystem.

#### CTNS203 – Maintaining Operating Systems & Visualization 120 hours

During this course students will learn how to support and maintain a Windows operating system including how to schedule maintenance tasks, set up backup routines for user data and system files, use commands to manage files and folders, manage a hard drive, optimize Windows using the operating system's tools, support customers and troubleshoot windows. Students will learn about printer types and features and how to install, maintain, and troubleshoot local and networked printers, Linox and Mac OS X and Mobile operating systems and explore virtualization.

#### CTNS301 – Introduction to Networking – 120 hours

During this course students will learn how hardware is used for networking, various types of networks, and how to set up and troubleshoot network connections. Students will gain an understanding of the purpose of the OSI model, the structure and purpose of data packets and frames, basic data packets and frames, and basic data transmission concepts including full duplexing, attenuation, latency and noise. Students will also gain knowledge of the key TCP/IP services along with commonly used network access methods and their many physical layers and standards.



### Course Descriptions: Computer Technician Networking Specialist Program

#### CTNS302 – Networking Infrastructure – 120 hours

During this course students will learn basic data transmission concepts, including throughput, bandwidth, multiplexing, and common transmission flaws. Students will learn about the various types of wireless networking characteristics, wireless standards that support the Internet of Things, 802.11 standards and innovations, virtualization technologies including how virtual machines connect with a network and how networking infrastructure devices can be virtualized. This course will cover cloud computing categories and models, remote access, the purposes of network segmentation and provide students with an understanding of how VLANs work and are used.

#### CTNS303 – Network Communications, Security, and Performance – 120 hours

During this course students will learn to identify people, technology, and malware security risks to a network, the tools used to evaluate security of a network and configure devices for increased security. Students will learn how to utilize tools to monitor device and network events, and the best practices for incident response and disaster recovery. In addition, students will develop an understanding of the fundamental elements of WAN service options and the most common wireless WAN technologies.

**Career Development:** All sections of this 900 hour Computer Technician Networking Specialist (CTNS) program were developed to provide students with the practical, hands on experience necessary for working in this field and to prepare students for industry certification. Career Development knowledge, skills and abilities are part of the foundation of this program and have been integrated throughout so that students are properly prepared for the employment process. During the CTNS program students will prepare for their job search and prepare resumes, job applications, cover letters, thank-you letters, learn and practice interview techniques, use of the telephone and fax, employment testing, and office behavior and etiquette.