

# VETS Group Training Academy



## Main Campus & Administrative Offices

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### Hours of Operation

Mondays - Thursdays 10:00 am - 9:30 pm

Fridays - 10:00 am - 7:00 pm

Saturdays & Sundays: By Appointment Only

(Call for Appointment 202-822-0011)

## 2023 IT & TELECOM PROGRAMS

### Programs - Courses

January 2023 – December 31, 2023

Volume I – Rev3

**Note:** Selected Programs are eligible for GI Bill Veterans. GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>

Table of Contents

**PROFESSIONAL IT CERTIFICATE PROGRAMS** ..... 4

    PC SPECIALIST PROGRAM (PCSP - 162 Hours)..... 4

*PC Essentials (CompTIA A+) - 126 CLOCK HOURS - (CTIA-130)*..... 5

*IT Fundamentals (CompTIA ITF+) - 36 CLOCK HOURS - (CTIA-133)*..... 7

    NETWORK SPECIALIST PROGRAM (NSP-72 Hours)..... 8

*Networking Fundamentals (CompTIA NET+) - 72 CLOCK HOURS - (CTIA-131)*..... 8

    SECURITY SPECIALIST PROGRAM (SSP-72 Hours)..... 10

*Security Fundamentals (CompTIA SEC+) - 72 CLOCK HOURS - (CTIA-132)* ..... 10

*Introduction to Cybersecurity - 18 CLOCK HOURS - (CSCO-150)* ..... 11

    AWS CLOUD COMPUTING PROGRAM (CCP-90 Hours) ..... 12

*AWS Certified Cloud Practitioner – 36 CLOCK HOURS - (AWS-101)* ..... 13

*AWS Certified Solutions Architect – 36 CLOCK HOURS - (AWS-102)*..... 14

    CYBER SECURITY PROFESSIONAL PROGRAM - LEVEL1 (CEH-L1-72 Hours) ..... 15

*Certified Ethical Hacker (CEH) - 72 CLOCK HOURS - (ECEH-180)* ..... 16

    CYBER SECURITY PROFESSIONAL PROGRAM - LEVEL2 (CISSP-L2-72 Hours)..... 17

*Certified Info Systems Security Professional - 72 CLOCK HOURS - (CISP-801)*..... 18

    MICROSOFT (365) OFFICE SPECIALIST PROGRAM (MSOSP-90 Hours)..... 19

*MS365 Word (MOSP 201)*..... 21

*MS365 Excel (MOSP 202)*..... 21

*MS365 PowerPoint (MOSP 203)*..... 22

*MS365 Teams (MOSP 204)* ..... 22

*MS365 OneDrive* ..... 23

*MS365 OneNote* ..... 23

    WEB DEVELOPMENT CERTIFICATE PROGRAM (WDCP-108 Hours)..... 24

*Introduction to Web Development - 54 CLOCK HOURS - (WDP-701)*..... 24

*Fundamentals of Website Development - 54 CLOCK HOURS - (WDP-702)*..... 25

    PROJECT MANAGEMENT PROFESSIONAL PROGRAM (PMPP-72 Hours)..... 26

*Introduction to Project Management - 36 CLOCK HOURS (PMP- 301)* ..... 27

*Advanced Project Management - 36 CLOCK HOURS - (PMP-302)* ..... 28

**PROFESSIONAL TELECOM PROGRAMS**..... 29

    CERTIFIED CABLE INSTALLATION PROGRAM (CCIP-144 Hours)..... 29

*Certified Premise Cable Technician - 72 CLOCK HOURS - (CCIP-401)* ..... 29

*Certified Fiber Optic Technician - 72 CLOCK HOURS - (CCIP- 402)*..... 30

WIRELESS BROADBAND TECHNICIAN PROGRAM (WBTP-144 Hours)..... 31

*Wireless Broadband Fundamentals - 54 CLOCK HOURS - (WBT-504) ..... 32*

*Broadband Wireless Installer - 36 CLOCK HOURS - (WBT-505)..... 35*

CERTIFIED WIRELESS TOWER CLIMBER PROGRAM (CWTCP-120 Hours)..... 38

*Tower Climber Safety & Rescue - 60 CLOCK HOURS - (WTCP-601)..... 38*

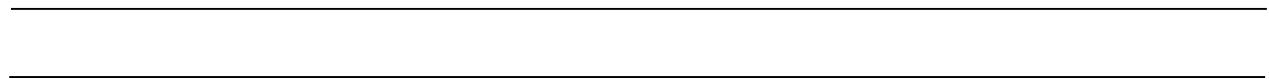
*Wireless Construction Standard - 60 CLOCK HOURS - (WTCP-602)..... 40*

**APPENDIX A – VIDEO CONFERENCING PLATFORM ..... 42**

**APPENDIX B - 2023 PROGRAMS - TUITION & FEES (Amended 8-4-22) ..... 45**

**APPENDIX C - 2023 PROGRAM SCHEDULES ..... 47**

(Contact the school at (202) 822-0011 for a copy of the current program schedule or visit our website at [www.VetsGroup.org](http://www.VetsGroup.org))..... 47



## PROFESSIONAL IT CERTIFICATE PROGRAMS

### PROFESSIONAL IT CERTIFICATE PROGRAMS

Information Technology Professional Certificate Programs provide a combination of instructor led courses and hands on labs that enhance the required IT and computer skills needed for those seeking immediate employment or to advance their career within the information technology industry. For a designated period of time, all of the program courses are now offered live online, instructor led. These programs offer the types of technical information for developing a highly skilled workforce that meets the needs of employers that are often looking for individuals who hold a state license or an industry-recognized credential.

The VETS Group Training Academy programs offer courses that lead to nationally recognized industry certifications such as CompTIA A+, Net+ and Security+; Cisco CCNA; and Amazon Web Services; as well as Microsoft, PMI, and Telecommunications certifications.

### PC SPECIALIST PROGRAM (PCSP - 162 Hours)

The PC Specialist Program prepares students for an entry-level career into the field of Information Technology and Computer Support. Students will learn the fundamentals of computer technology, installation and configuration of PCs, laptops and related hardware and software.

Students will also be introduced to the CompTIA IT Fundamentals (ITF+) course which is the steppingstone for those who are just getting started in their IT career path. IT Fundamentals provides students with an introductory overview of IT concepts including hardware, software, networks, skills databases, and ethics with an emphasis on application of IT in business.

The CompTIA A+ course provides students with the fundamentals of building a workstation and installing and configuring various operating systems. Students learn the foundation-level of understanding basic computer systems and common internet technologies and to install and troubleshoot a user's desktop system. Students will also learn the fundamentals of installing and configuring Windows operating systems, as well as configuring common features for network connectivity and email. The CompTIA A+ Core Series requires candidates to pass two exams: Core 1 (hardware) and Core 2 (software).

**Job Titles:** This program is beneficial for individuals looking for employment in positions such as Computer/Technical Support Specialist, Field Service Technician, Help Desk Support Technician, Call Center Representative, and IT Support Specialist.

### PCSP Program Courses:

Course ID	Course Name	Clock Hours	Certification Exam
CTIA-130	PC Essentials	126	CompTIA A+ 220-1101&1102
CTIA-133	IT Fundamentals	36	CompTIA FCO-U61
	<b>Total Clock Hours</b>	<b>162</b>	

### *PC Essentials (CompTIA A+) - 126 CLOCK HOURS - (CTIA-130)*

**Textbook:** All in One, CompTIA A+ Certification Exam Guide, 10<sup>th</sup> Edition (Exams 220-1101 & 220-1102) by Mike Meyers

**Description:** This course is designed to provide students with the fundamentals of building a workstation and installing and configuring various operating systems. Students learn the foundation-level of understanding basic computer systems and common internet technologies and to install and troubleshoot a user's desktop system. Students will also learn the fundamentals of installing and configuring Windows operating systems on a desktop and a laptop.

Completing this course and getting an A+ certification affords a wealth of advantages. First of all, it's ideal for those interested in getting straight into the workforce with minimal time spent on education. It provides you with very intensive training over a short-term period, giving you a broad base of knowledge upon which to start building your career as a computer technician. Another advantage is that it is one of the most inexpensive ways for you to get your foot in the door of this particular field. Information Technology (IT) can be a very competitive industry, so becoming adept at the hardware and software aspects can often pave the way to becoming adept at other challenging careers within the IT industry. It can allow you to qualify for corporate training programs, internships or apprenticeships because it shows employers that you are willing and eager to learn. In an industry that changes on a daily basis, proving yourself willing to grow with it is often the best way for you to achieve success.

### **Course Topics**

**Hardware:** The Hardware Section provides students with a detailed overview on various aspects of personal computer hardware. Students will receive instruction on computer components, including bus architecture, motherboards, CPU/RAM, chipsets, peripherals, I/O-data transfers, portable computing devices, with hands-on experience and practice components. Students learn to disassemble and reassemble an actual computer. Students will install various peripheral devices, including optical drives (CD/DVD-ROM), hard drives, video cards and network interface cards. Students will also learn to build, install, configure, implement, troubleshoot, support, administer, test and maintain a user's desktop system.

#### **Hardware topics include:**

- Fundamentals of Computer
- Computer Components, Disassembly, & Reassembly
- Hardware Installation; Understanding Operating System configuration
- Installing and Upgrading Client Systems
- Managing Applications, Files and Folders, Devices
- Understanding Operating System Maintenance

**Software:** The Software Section of this course provides students with the fundamentals to install, configure, implement, troubleshoot, support, administer, test and maintain Windows operating systems on a desktop and laptop computers. Students will receive instruction on Windows operating system installation and configuration, networking, upgrading Windows, NTFS security, creating users and group accounts, maintaining and optimizing Windows, working with the

command-line interface, troubleshooting Windows, LAN and WAN basic, wireless networking, Internet, multimedia, computer security, and virtualization.

### **Software topics include:**

- Visible Windows & Networks, Installing and Upgrading Windows
- Windows Under the Hood, NTFS, Users, and Groups
- Maintaining and Optimizing Windows, Working with the Command-Line Interface
- Troubleshooting Windows, Local Area Networking & Wireless Networking
- The Internet, Multimedia, Securing Computers, Virtualization

### **Organization**

This is a lecture-hands-on course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objectives and quizzes are given daily, and there is a mid-term exam and a comprehensive final exam. This course requires a total of 108 in-class hours.

### **Prerequisites**

There are no prerequisites for this course. However, it's a policy of the school that all students have a high school diploma or GED certificate and with a minimum 9th grade math and reading comprehension level. It is advised that students possess the below listed skills prior to this course.

- Basic Computer Assessment Test & Computer Literacy
- Basic Microsoft Windows Navigation Skills
- Basic Internet Usage Skills

### **Certification Exam Prep: CompTIA A+**

This course will also prepare students for the CompTIA A+ (A Plus) certification exam that is an entry-level computer certification for PC computer service technicians. The exam is designed to certify the competency of entry-level PC computer service professionals in installing, maintaining, customizing, and operating personal computers.

CompTIA A+ certification validates the latest foundation-level knowledge and skills needed by today's computer support professionals. It is the starting point for a career in the Information Technology industry. CompTIA A+ certification proves competence in a technician's ability to perform essential IT tasks such as installation, configuration, diagnosing, preventative maintenance, basic networking and security. It also confirms a technician's understanding of customer service and communication skills needed to work with clients.

In addition to granting you competency in computer hardware and software use, A plus certification is a natural lead-in to other certification programs and will help make you more competitive in the workforce by granting you credentialing that will assure employers of your technological expertise.

The A+ exam is open to anybody, although it is designed to be taken by those with at least six months of job experience as service technicians or for persons who have successfully completed a course of study for CompTIA A+. Students are encouraged to take the CompTIA A+: 220-1101 & 220-1102 examinations immediately upon completion of this course.

### *IT Fundamentals (CompTIA ITF+) - 36 CLOCK HOURS - (CTIA-133)*

**Textbook:** CompTIA IT Fundamentals (ITF+) Study Guide: 2<sup>nd</sup> Edition (Exam FC0-U61)

**Description:** This course is designed to help every computer and mobile device user to better understand setup, software installation and configuration, network connectivity, security issues and basic troubleshooting. Students will better understand everything from file structure to software installation, to Wi-Fi connectivity and troubleshooting to overall setup, configuration and troubleshooting devices.

The main goal of the course is to help users better understand, set up, configure, and troubleshoot all kinds of devices, and to understand basic IT concepts.

### **Course Topics**

The course covers all the CompTIA IT Fundamentals FC0-U61 objective domains:

- 1.0 IT Concepts and Terminology
- 2.0 Infrastructure
- 3.0 Applications and Software
- 4.0 Software Development
- 5.0 Database Fundamentals
- 6.0 Security

### **Organization**

This is a lecture-hands-on program in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods. Students are encouraged to re assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Quizzes are given daily, and there is a mid-term exam and a comprehensive final exam.

### **Prerequisites**

There are no prerequisites for this course. However, it's a policy of the school that all students have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. It is also recommended that students possess the below listed skills or certifications prior to taking this course and at least 9 months of on the job experience.

- Basic Computer Assessment Test & Computer Literacy
- Basic Microsoft Windows Navigation Skills
- Basic Internet Usage Skills

**Certification Exam Prep: CompTIA IT Fundamentals+**

The CompTIA IT Fundamentals certification is mainly targeted to those candidates who want to build their career in IT Infrastructure domain. The CompTIA IT Fundamentals certification exam FC0-U61 verifies that the candidate possesses the fundamental knowledge and proven skills in CompTIA IT Fundamentals.

**NETWORK SPECIALIST PROGRAM (NSP-72 Hours)**

The Network Specialist Program prepares students for an entry-level career into the field of Information Technology and Computer Support. This program is designed to validate the technical skills needed to securely establish, maintain and troubleshoot the essential networks that businesses rely on. Students will learn the fundamentals of basic networking, data transfer protocols, cabling structure, routers and switches, IP addressing and subnetting; and physical and logical topography. Students will be required to install and configure PC operating systems, as well as configure common features (e.g. network connectivity and email).

This Program will also prepare students for the CompTIA Net+ certification exam.

**Job Titles:** This program and certification can be used for job roles such as a Network Technician, Network Installer, Help Desk Technician, and IT Support Specialist.

**NSP Program Courses:**

Course ID	Course Name	Clock Hours	Certification Exam
CTIA-131	Networking Fundamentals	72	CompTIA Net+ N10-006
<b>Total Clock Hours</b>		<b>72</b>	

**Networking Fundamentals (CompTIA NET+) - 72 CLOCK HOURS - (CTIA-131)**

**Textbook:** All in One, CompTIA Network+, Exam Guide, 7<sup>th</sup> Edition  
by Mike Meyers

**Description:** This course introduces students to the fundamentals of networking and data transfer. Students will focus on domain infrastructure and networking environments using Windows Server. Students learn to utilize administrative tools required to manage users, share system resources, and perform system maintenance. Students will also learn to connect computers together and configure transmission media connectivity, which is referred to the methods whereby systems “talk” to each other. In this course students learn LAN and WAN concepts, topologies, Open Systems Interconnection (OSI) Reference Model, Ethernet networks, TCP/IP networking, IP v4 and IPv6 Sub-netting, IP routing, Network Address Translation (NAT), technologies, protocols and services, such as Virtual Private Network (VPN) and the Internet.

In addition to building one’s networking skill set, this course is also designed to prepare an individual for the CompTIA Network+ certification exam, a distinction that can open a myriad of



job opportunities from major companies. The IT industry is a stable and rapidly growing field and the demand for network professionals is continuing to grow. This certification is a valuable credential to help start or enhance a networking career.

### Course Topics

- Domain 1: Network Technologies
- Domain 2: Network Media and Topologies
- Domain 3: Network Devices
- Domain 4: Network Management
- Domain 5: Network Tools
- Domain 6: Network Security

### Organization

This is a lecture-hands-on program in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Quizzes are given daily, and there is a mid-term exam and a comprehensive final exam.

### Prerequisites

There are no prerequisites for this course. However, it's a policy of the school that all students have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. It is also recommended that students possess the below listed skills or certifications prior to taking this course and at least 9 months of on the job experience.

- Basic Computer Assessment Test & Computer Literacy
- Basic Microsoft Windows Navigation Skills
- Basic Internet Usage Skills
- CompTIA A+ certification and/or equivalent knowledge

### Certification Exam Prep: CompTIA Net+

Most IT professionals who intend to make their career in networking will eventually sit for several networking certifications. In most cases, multiple certifications are necessary because they deal with vendor-specific applications. This course will prepare students for the CompTIA Net+ certification exam (N10-006) that tests an overall understanding of how networks operate, including network technologies, media and topologies, device.

The Net+ exam is open to anybody, although it is designed to be taken by those with at least 9 months of job experience as a computer service technician or for persons who have successfully completed a course of study in PC Fundamentals or CompTIA A+. Students are encouraged to take the CompTIA Net+ examination immediately upon completion of this course.

## SECURITY SPECIALIST PROGRAM (SSP-72 Hours)

This Program prepares students for an entry-level career into the field of Cybersecurity. Students will learn the most important foundational principles for securing a network from unauthorized access and managing risk. Actual techniques to secure networks will be introduced. Students will gain the knowledge of security concepts, tools, and procedures to anticipate and react to security incidents to guard against them before they occur. This Program will also prepare students for the CompTIA Sec+ certification exam. Upon certification, successful candidates will be able to demonstrate a working knowledge of security concepts, tools and procedures; respond to security threats, participate in risk mitigation activities, respond to threat analysis and work within the constraints of applicable policies and regulations.

**Job Titles:** Network Security Specialist, Security Administrator, Network Security Support Engineer, and Information Security Specialist.

### SSP Program Courses:

Course ID	Course Name	Clock Hours	Certification Exam
CTIA-132	Security Fundamentals	54	CompTIA Sec+ SYO-601
CSCO-150	Intro to Cybersecurity	18	N/A
<b>Total Clock Hours</b>		<b>72</b>	

### *Security Fundamentals (CompTIA SEC+) - 72 CLOCK HOURS - (CTIA-132)*

**Textbook:** Get Certified Get Ahead: CompTIA Security+ SY0-501 Study Guide Paperback by Darril Gibson

**Description:** This course is designed to provide students with the fundamentals and basics of network and operating systems security. Students will focus on the fundamentals of security knowledge and skills. Students will learn how to identify potential risks, infrastructure and connectivity, monitoring communications activity, implementing and maintaining a secure network, Anti- Malware products, firewalls, network topologies and devices, and network ports. In addition, the successful candidate will learn how to apply security controls to maintain confidentiality, integrity, and availability, identify appropriate technologies and products, troubleshoot security events and incidents, and operate with an awareness of applicable policies, laws, and regulations.

### Course Topics

Students learn the foundation-level of understanding of basic security features, cryptography, access control, threat analysis, risks mitigation, vulnerability assessment, physical and hardware security and disaster recovery. Course topics include:

- Standard 1: Understanding Security Layers Objective
- Standard 2: Understanding Operating System Security

- Standard 3: Understanding Network Security
- Standard 4: Understand Security Software
- Standard 5: Understand Security Careers and Ethics

## Organization

This is a lecture-hands-on program in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objective quizzes are given daily, and there is a mid-term exam and a comprehensive final exam.

## Prerequisites

There are no prerequisites for this course. However, it's a policy of the school that all students have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. It is also recommended that students possess the below listed skills or certifications prior to taking this course and/or 2 years of on-the-job experience.

- Basic Computer Assessment Test & Computer Literacy
- Basic Microsoft Windows Navigation Skills
- Basic Internet Usage Skills
- CompTIA A+ certification exam or equivalent knowledge
- CompTIA Net+ certification exam or equivalent knowledge

## Certification Exam Prep: CompTIA Sec+

If you're an IT professional hoping to progress in your career, then you know that the CompTIA Security+ exam is one of the most valuable certifications available. Since its introduction it has become a springboard to prestigious certifications like the CASP, CISSP, and CISA.

The CompTIA Security+ exam will certify that the successful candidate has the knowledge and skills required to identify risk, to participate in risk mitigation activities, and to provide infrastructure, application, information, and operational security. Students are encouraged to take the CompTIA Sec+ exam (SY0-401) within 2 weeks of completing this course.

## *Introduction to Cybersecurity - 18 CLOCK HOURS - (CSCO-150)*

**Textbook:** Cybersecurity Essentials, 1st Edition by Charles J. Brooks, Philip Craig, Donald Short

**Description:** The Introduction to Cybersecurity course explores the broad topic of cybersecurity in a way that matters to you. Students will learn how to protect their personal data and privacy online and in social media, and why more and more IT jobs require cybersecurity awareness and understanding.

## Course Topics

- What is Cybersecurity
- What Cybersecurity means professionally and personally
- How businesses protect against cyber attacks

- Why the Cybersecurity job market is growing
- Certifications and degrees in Cybersecurity

**Organization**

This course is presented in a seminar format presented by the instructor. Students are encouraged to read assigned topics prior to attending class.

**Prerequisites**

There are no prerequisites for this course. However, it’s a policy of the school that all students have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. It is also recommended that students possess the below listed skills or certifications prior to taking this course.

- Basic Computer Usage Skills
- Basic Microsoft Windows Navigation Skills
- Basic Internet Usage Skills

**Certification Exam Prep: N/A**

**AWS CLOUD COMPUTING PROGRAM (CCP-90 Hours)**

Cloud computing is the on-demand delivery of computer power, database storage, applications, and other IT resources through a cloud services platform via the internet. Cloud is the way forward for organizations such that it enables businesses and consumers to do innovative things quickly, at a massive scale, and without an up-front investment. However, living in the era of cloud technologies requires different skills that organizations are struggling to fulfill in existing or new job roles. The Vets Group understands organizational needs when it comes to cloud computing.

Our comprehensive training solution creates a structured learning path for IT technicians to acquire the knowledge and preparation for the Amazon Web Services (AWS) Certified Cloud Practitioner exam and an introduction to the AWS Certified Solutions Architect exam.

**Job Titles:** AWS Cloud Practitioner; AWS Solutions Architect; Database Administrator; Systems Administrator

**CCP Program Courses:**

Course ID	Course Name	Clock Hours	Certification Exam
AWS-101	AWS Certified Cloud Practitioner	54	AWS CLF-C01
AWS-102	AWS Certified Solutions Architect	36	AWS SAA-C01
<b>Total Clock Hours</b>		<b>90</b>	

## *AWS Certified Cloud Practitioner – 36 CLOCK HOURS - (AWS-101)*

**Textbook:** AWS Certified Cloud Practitioner (CLF-C01) Certification Guide by Anthony Sequeira

**Description:** Cloud computing is the on-demand delivery of computer power, database storage, applications, and other IT resources through a cloud services platform via the internet. Cloud is the way forward for organizations such that it's enabling businesses and consumers to do innovative things quickly, at a massive scale, and without an up-front investment. However, living in the era of cloud technologies requires different skills that organizations are struggling to fulfill existing or new job roles.

The AWS Certified Cloud Practitioner (CCP) course is the best place to jump-start your cloud career. The AWS Certified Cloud Practitioner certification exam is for those who have the skills and knowledge to reveal the complete discernment of AWS Cloud. This certification path is intended for individuals who are looking to build and validate overall understanding of the AWS Cloud. This path is useful for individuals who are beginning their walk into IT and even those in technical, managerial, sales, purchasing, or financial roles who work with the AWS Cloud.

### **Course Topics**

- AWS Cloud value proposition;
- Key Services on the AWS platform and common use cases.
- Basic security & Compliance aspects of the AWS platform;
- Billing, Account Management, & Pricing models;
- Basic/core characteristics of developing and operating in the AWS Cloud
- Sources of documentation/Technical Assistance

### **Hands-On Practices & Projects**

You will participate in extensive hands-on practices. These include:

- Use AWS Cloud Formation to produce stacks of AWS resources
- Build functioning virtual private networks
- Deploy Amazon EC2 instances using command line calls
- Monitor the health of AWS services
- Manage user identity, permissions, security in the cloud
- Manage resource consumption
- Select/implement the best strategy for creating reusable Amazon EC2 instances
- Edit and troubleshoot a basic AWS Cloud Formation stack definition

### **Organization**

This is a lecture-hands-on course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objectives and quizzes are given daily, and there is a mid-term exam and a comprehensive final exam.

## Prerequisites

This AWS Certified Cloud Practitioner training is for absolutely anyone seeking to learn the major components of Amazon Web Services (AWS). Even if you have never logged into the AWS platform before, by the end of the course, you will be prepared to pass the AWS Certified Cloud Practitioner exam. However, it is a policy of the school that all students have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. It is also advised that students possess the below listed skills prior to taking this course.

- Basic Computer Assessment Test & Computer Literacy
- Basic Microsoft Windows Navigation Skills
- Basic Internet Usage Skills

## Certification Exam Prep: AWS Certified Cloud Practitioner CLF-C01

This certification provides individuals in a larger variety of cloud and technology roles with a way to validate their AWS Cloud knowledge and enhance their professional credibility. This exam covers four domains, including cloud concepts, security, technology, billing and pricing.

## *AWS Certified Solutions Architect – 36 CLOCK HOURS - (AWS-102)*

**Textbook:** AWS Certified Solutions Architect - Associate Official Study Guide by Joe Baron

**Description:** Cloud computing is the on-demand delivery of computer power, database storage, applications, and other IT resources through a cloud services platform via the internet. Cloud is the way forward for organizations such that it's enabling businesses and consumers to do innovative things quickly, at a massive scale, and without an up-front investment. However, living in the era of cloud technologies requires different skills that organizations are struggling to fulfill existing or new job roles.

AWS Certified Solutions Architect is among the most valuable and highly sought after cloud computing certifications in the world today. This course is designed for anyone seeking to learn the major components of Amazon Web Services (AWS). By the end of the course, you'll be prepared to pass the associate-level AWS Certified Solutions Architect certification exam.

We will start with a broad overview of the AWS platform. No programming knowledge is needed, and no prior AWS experience required. Even if you have never logged into the AWS platform before, you'll build the foundations to pass the AWS Certified Solutions Architect exam after completing our certification training and devoting an additional 80 - 120 hours of study.

## Course Topics

- History of AWS
- Identify Access Management

- Security Group Basics & EC2
- AWS Command Lines & Boot Strap Scripts
- Dynamic Databases & Routing Policies
- Network Addressing & VPCs
- HA Architecture, Applications, & Server-less Webpages

**Hands-On Practices & Projects:** You'll participate in extensive hands-on practices.

- Use AWS Cloud Formation to produce stacks of AWS resources
- Build functioning virtual private networks
- Deploy Amazon EC2 instances using command line calls
- Build a server-less webpage
- Build a custom VPC

### Organization

This is a lecture-hands-on course in which topics are presented by the instructor, practice hands-on labs are explained and assigned and are completed by students during lab periods. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objectives and quizzes are given daily, and there is a mid-term exam and a comprehensive final exam. This course requires a total of 36 in-class hours.

### Prerequisites

This AWS Certified Solutions Associate training is for absolutely anyone seeking to learn the major components of Amazon Web Services (AWS). However, it is a policy of the school that all students have a high school diploma or GED certificate and with a minimum 9th grade math and reading comprehension level. It is also advised that students possess the below listed skills prior to taking this course.

- Basic Computer Assessment Test & Computer Literacy
- Basic Microsoft Windows Navigation Skills
- Basic Internet Usage Skills
- AWS Certified Cloud Practitioner Certification or equivalent experience

### Certification Exam Prep: AWS Certified Solutions Architect SAA-C01

This certification is a must-have for any IT professional. Average salaries range above \$100,000 USD. A certificate in AWS Cloud technology can boost your salary up to 26 percent, and the average salary for certified IT professionals is, on average, 11.7 per cent higher than those without.

### CYBER SECURITY PROFESSIONAL PROGRAM - LEVEL1 (CEH-L1-72 Hours)

**Certified Ethical Hacker (CEH)** is a qualification obtained by demonstrating knowledge of assessing the security of computer systems by looking for weaknesses and vulnerabilities in target systems, using the same knowledge and tools as a malicious hacker, but in a lawful and legitimate

manner to assess the security posture of a target system. Students will learn penetration testing skills in a lab environment where they must demonstrate the ability to apply techniques and use penetration testing tools to compromise various simulated systems within a virtual environment.

CEH is a professional designation for hackers that perform legitimate services for IT companies and other organizations. A CEH is hired to locate and repair application and system security vulnerabilities to preempt exploitations by black hat hackers and others with potentially illegal intentions. CEH oversight is provided by the International Council of E-Commerce Consultants (EC-Council).

**Job Titles:** Security Administrator, Security Analyst, Network Security Architect, Network Security Engineer, Network Security Specialist, Security Consultant, Database Administrator.

### CSPP Program Courses:

Course ID	Course Name	Clock Hours	Certification Name
ECEH-180	Certified Ethical Hacker	<u>72</u>	EC-Council Exam #312-50
<b>Total Clock Hours</b>		<b>72</b>	

### *Certified Ethical Hacker (CEH) - 72 CLOCK HOURS - (ECEH-180)*

**Textbook:** CEH Certified Ethical Hacker Bundle, 3rd Edition (All-in-One) by Matt Walker

**Description:** Certified Ethical Hacker (CEH) is a professional with competence and intelligence in understanding and recognizing how to look for the weaknesses and vulnerabilities in target systems and uses the same knowledge and tools as a malicious hacker. In this course, students will be immersed into an interactive environment where they will learn how perimeter defenses work and then be lead into scanning and attacking their own networks. No real network is harmed. Students then learn how intruders escalate privileges and what steps can be taken to secure a system. Students will also learn about Intrusion Detection, Policy Creation, Social Engineering, DDoS Attacks, Buffer Overflows and Virus Creation.

### Course Topics

Module 01: Introduction to Ethical Hacking	Module 02: Foot-printing & Reconnaissance
Module 03: Scanning Networks	Module 04: Enumeration
Module 05: System Hacking	Module 06: Trojans and Backdoors
Module 07: Viruses and Worms	Module 08: Sniffers
Module 09: Social Engineering	Module 10: Denial of Service
Module 11: Session Hijacking	Module 12: Hijacking Webservers
Module 13: Hacking Web Applications	Module 14: SQL Injection
Module 15: Hacking Wireless Networks	Module 16: Evading IDS, Firewalls, Hpts
Module 17: Buffer Overflow	Module 18: Cryptography
Module 19: Penetration Testing	



## Organization

This is a lecture-hands-on course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objective and quizzes are given daily, and there is a comprehensive final exam.

## Prerequisites

This course is appropriate for students at many education levels and types of institutions, including high schools, secondary schools, universities, colleges, career and technical schools, and community centers.

It's also a policy of the school that all students have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. Students should also possess the below listed skills or certifications prior to taking this course:

- PC Essentials course and/or the CompTIA A+ certification exam or equivalent knowledge
- Security and Networking Fundamentals courses and/or the CompTIA Net+ certification exam or equivalent knowledge

## Certification Exam Prep

This course prepares students for the EC-Council Exam #312-50 for Certified Ethical Hacker (CEH). The International Council of Electronic Commerce Consultant (EC-Council) offers e-Business certification for professionals seeking specialized knowledge and advancement in career opportunities in fields like: IT security, including disaster recovery, secure programming, e-Business and general IT security knowledge. The EC-Council is best known for its professional certifications for the IT security field. The EC-Council CEH (Certified Ethical Hacker) is a vendor neutral, mid-level certification that validates the student's skills and knowledge in ethical hacking and related technologies.

## CYBER SECURITY PROFESSIONAL PROGRAM - LEVEL2 (CISSP-L2-72 Hours)

The demand for cybersecurity experts has grown 3 times faster than any other IT job role, and training a cybersecurity workforce is a priority for many governments. From confidential company data to personal information, more connections make data more vulnerable to attacks, increasing the demand for professionals with cybersecurity skills.

This program concentrates on in-depth, theoretical understanding of network security principles as well as the tools and configuration available. This program emphasizes the practical application of skills needed to design, implement, and support network security.

**Job Titles:** Security Administrator, Security Analyst, Network Security Architect, Network Security Engineer, Network Security Specialist, Security Consultant, Database Administrator.

### CSPP Certificate Courses:

Course ID	Course Name	Clock Hours	Certification Name
CISP-801	Certified Information Systems Security Professional	<u>72</u>	ISC(2) CISSP Exam
<b>Total Clock Hours</b>		<b>72</b>	

### *Certified Info Systems Security Professional - 72 CLOCK HOURS - (CISP-801)*

**Textbook:** CISSP All-in-One Exam Guide, 7th Edition by Shon Harris and Fernando Maymi

**Description:** Certified Information System Security Professional (CISSP) is one of the computer industry's most comprehensive and prestigious certification programs for assessing and maintaining security IT networking and management skills. Information system security is a unique aspect of business, government, and society today. Professionals who work to protect and secure information systems need a unique set of qualifications, of which technical knowledge is only one component.

This management level computer security course will teach students to plan, design, administer, and troubleshoot security systems to effectively protect a company's data in the constantly changing, challenging world of computer networks and information systems. Through eight CISSP modules, students will broaden and deepen their knowledge of information systems security. Students will also be prepared for the CISSP certification exam.

DoD Directive 8570.1-M- CISSP meets Government and DoD agencies compliance with Federal Information Security Management Act (FISMA) and DoD Directive 8570.1-M

### Course Topics

- Security & Risk Management (Security, Risk, Compliance, Law, Regs, Business Continuity)
- Asset Security (Protecting Security of Assets)
- Security Engineering (Engineering and Management of Security)
- Communications and Network Security (Designing and Protecting Network Security)
- Identity and Access Management (Controlling Access and Managing Identity)
- Security Assessment and Testing (Designing, Performing, and Analyzing Security Testing)
- Security Operations (Foundational Concepts, Investigations, Incident Management, Disaster Recovery)
- Software Development Security (Understanding, Applying, and Enforcing Software Security)

### Organization

This is a lecture-hands-on course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab

periods. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Quizzes are given daily, and there is a comprehensive final exam.

### **Prerequisites**

This course is designed for individuals who have an Information Systems Security background and wish to prepare for skills in the planning, management and/or administration of information security. Related experience must include a minimum of at least five years direct full-time security professional work experience in two or more of the eight domains.

This course is also for Information Technology Security Professionals who wish to not only prepare to pass the CISSP Exam; but also utilize this course as a launching point for other advanced security certifications such as CISA, CISM, CEH, CHFI and related courses.

**Certification Exam Prep:** ISC (2) CISSP Exam

### **MICROSOFT (365) OFFICE SPECIALIST PROGRAM (MSOSP-90 Hours)**

Earning Microsoft Office Specialist certifications can help you differentiate yourself in today's competitive job market, broaden your employment opportunities by displaying your advanced skills, and result in higher earning potential. MOS certifications can also lead to increased job satisfaction. Research indicates that certified individuals have increased competence, productivity, and credibility with their employers, co-workers, and clients. In addition, Managers who hire candidates with a Microsoft Office Specialist certification are helping minimize training costs. Students will return to their workplace with the skills necessary to succeed coupled with one or more industry leading certifications.

The Microsoft Office Specialist Program is designed to prepare students with the skills needed to get the most out of the software programs within the suite of Microsoft Office 365. MS365 is the new cloud-powered Microsoft productivity platform that has now replaced the legacy Microsoft Office desktop version. It includes the latest productivity apps, such as Microsoft Teams, Word, Excel, PowerPoint, Outlook, OneDrive, SharePoint, OneNote and so much more.

This program is intended to help all novice computer users get up to speed with Microsoft 365 quickly. It covers different features of the interface, shows you how to perform basic tasks, and introduces you to the most important tools in Word, PowerPoint, and Excel. This program will help you to become familiar with the apps and services included in a Microsoft 365 subscription such as Teams, OneDrive, and OneNote. You will improve your word processing, spreadsheet, and presentation skills to take your productivity to the next level. You will learn how to work smarter and more collaboratively with the latest intelligent features of Office 365

**Job Titles:** Administrative Assistant; Office Assistant; Office Manager; Data Analyst.

**MSOSP Program Courses:**

Course ID	Course Name	Clock Hours	Certification Exam
MOSP-201	Intro to MS Word	18	MO-100- MS365: Word
MOSP-202	Intro to MS Excel	18	MO-200 - MS365: Excel
MOSP-203	Intro to MS PowerPoint	18	MO-300 - MS365: PowerPoint
MOSP-204	Intro to MS Teams	18	MO-400 - MS365: Teams
MOSP-205	Intro to MS OneDrive/OneNote	<u>18</u>	N/A
	<b>Total Clock Hours</b>	<b>90</b>	

**Course Modules**

Students will receive training in 4 key Modules within the MS 365 Office Suite of programs: (1) Word; (2) Excel; (3) PowerPoint; (4) Teams. Candidates will be prepared to pass one or more certification exams. Students will also be introduced to the use of MS365 OneDrive and OneNote.

Students will engage in hands-on activities throughout this program that offer opportunities to practice and implement what they are learning. They will also have the opportunity to complete projects that create artifacts that will be useful to them in their personal and professional life. For example, they will use Word to create a professional-looking resumé, analyze data and present a report with Excel, and create a presentation with PowerPoint on a topic that interests you to demonstrate your skills in this area.

**Organization/Prerequisites**

The 4 Modules or component parts of the Microsoft Office 365 Specialist program are described and their topics covered are listed below. All modules follow the same organization. This is a lecture-hands-on course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods.

Students are encouraged to read assigned chapters prior to attending class. Groups are created for optimum lab-work execution and completion. Objectives and quizzes are given daily, and a mid-term and comprehensive final exam are given to evaluate cumulative knowledge.

In addition, the Prerequisites for each module are the same. It is advised that the following skills and exams are passed and/or obtained prior to taking any programs at the VETS Group:

- Basic Computer Assessment Test
- Basic Computer Literacy
- Basic Microsoft Windows Navigation Skills
- Basic Internet Usage Skills
- Basic E-mail Usage Skills

### *MS365 Word (MOSP 201)*

**Textbook:** Study Guide for Microsoft Office 365

**Description:** This instructor-led course provides students with an overview of the features and functions of Microsoft 365 Word 2019.

Microsoft Word is perhaps the best known of the Microsoft 365 platforms and is for many people the definitive word processing app. It's still one of the best apps for writing, no matter the genre. It comes with an extensive (and at times overwhelming) set of features, a vast range of templates, and the performance and reliability one should expect in a Microsoft product. In short, if you need to write or edit a text-based document, there is little you won't be able to do on Microsoft Word.

The platform comes with best-in-class collaboration and review features, making it ideal for team-based use within organizations, particularly when used alongside OneDrive and the rest of the Microsoft 365 suite. Multiple people can co-author documents, access previous versions of a file, track changes, and provide real-time feedback to collaborators. OneDrive makes it easy to send links to colleagues that allocate the appropriate level of permissions within a Word document.

Another strength of Word is its sharing and exporting features. Users can export documents in several file types, including OpenDocument Text, Portable Document Format (PDF), and Microsoft Word format (.docx). Each of these formats is widely supported and means you will very rarely, if ever, have compatibility issues. This separates Word from a competitor such as Apple Pages that suffers endlessly from compatibility woes.

Some advanced features include built-in speech-to-text, automatic translation, and the immersive reader mode. The addition of 3D graphics is another feature that separates Microsoft Word from the rest of its competitors.

#### **Topics Covered**

- Sharing and maintaining documents
- Applying page layout and reusable content
- Format text, paragraphs and sections
- Including illustrations and graphics in a document
- Proofreading documents
- Applying references and hyperlinks
- Performing mail merge operations
- Create tables and lists
- Insert and format objects

### *MS365 Excel (MOSP 202)*

**Textbook:** MS365 Study Guide for Microsoft Excel

**Description:** The Microsoft 365 Excel User should be able to navigate the program software at the feature and functionality level. They should be familiar with and know how to use at least 80% of

the features and capabilities. This course is designed for students who want to gain the necessary skills to create, edit, format, and print basic Excel worksheets and workbooks. The student should be able to use Excel 2016 to produce professional-looking spreadsheets for a variety of purposes and situations including data analytics.

Another strength of Excel is its extensive list of functions, now numbering over 450. These enable users to manipulate and visualize data in innovative ways to provide rich insight into their data. Experienced users can also design and implement their own macro functions using VBA code. As with all Microsoft 365 apps, compatibility is not an issue. Apps are available on almost all operating systems, and users can export their spreadsheets in three formats: Microsoft (.xlsx), OpenDocument Spreadsheets (.ods), and Portable Document Format (.pdf). It is also possible to open Excel documents on other platforms such as Google Drive.

### Topics Covered

- Create and manage worksheets and workbooks
- Manage data cells and ranges
- Create tables
- Create operations with formulas and functions
- Create charts and objects

### *MS365 PowerPoint (MOSP 203)*

**Textbook:** MS365 Study Guide for Microsoft PowerPoint

**Description:** This class is designed for students who are interested in learning the fundamentals needed to create and modify basic presentations using Microsoft Office 365 PowerPoint. Students will explore the PowerPoint environment and create a presentation. Students will format text on slides to enhance clarity and add graphical objects to a presentation and modify them. Students will also add tables and charts to a presentation to present data in a structured form and then finalize a presentation.

### Topics Covered

- Managing the PowerPoint Environment
- Creating a Slide Presentation
- Working with Graphical and Multimedia Elements
- Creating Charts and Tables
- Applying Transitions and Animations
- Collaborating on Presentations

### *MS365 Teams (MOSP 204)*

**Textbook:** MS365 Study Guide for Microsoft Teams

**Description:** Teams is the newest addition to the Microsoft family, but arguably the most important. In short, Teams combines audio and video conferencing with workplace

communications. It is a central destination for coordination and communication, which is integral to business efficiency as we increasingly work remotely.

Like OneDrive, Teams is designed to be the glue that brings together all the other apps and features of the Microsoft 365 suite. It leverages cloud technology to help employees work collaboratively in real-time across several platforms.

The video conferencing features of Microsoft Teams are impressive, enabling employees to organize and conduct one-to-one conversations or company-wide meetings. It is even possible to organize webinars and information sessions with up to 10,000 participants. Within calls, participants enjoy screen sharing and call recording, live captions, background blur technology, and chat functionalities.

Communications channels sit alongside video conferencing and enable users to communicate in groups dedicated to different topics, such as a team-based project, company-wide announcements, or the office Christmas party. This keeps messages on-topic and enables employees to compartmentalize their communications.

### *MS365 OneDrive*

**Textbook:** MS365 Study Guide for Microsoft OneDrive

**Description:** Cloud storage has exploded in popularity in recent years, and OneDrive is Microsoft's entrant in this fiercely competitive market. Not only is the platform a secure place to store your essential data and documents, but its interfaces are straightforward and easy to use. Thumbnails are displayed for a wide range of file formats, while intelligent AI search functionalities make it easy to find what you're looking for.

What really makes OneDrive stand out is its full integration with all other Microsoft 365 apps. This deep integration makes Microsoft 365 an ecosystem of digital productivity, rather than just a bundle of individual applications. OneDrive is secure. All files are encrypted, both in transit and at rest. This alone makes the platform more secure than many competitors and means anyone stealing or intercepting your data will receive nothing but indecipherable text.

### *MS365 OneNote*

**Textbook:** MS365 Study Guide for Microsoft OneNote

**Description:** OneNote is Microsoft's note-taking app, and it has been designed with both students and professionals in mind. Although it looks great on paper and boasts an impressive range of features, it has struggled to achieve the popularity of other platforms such as Word, PowerPoint, and Excel. Nonetheless, OneNote has found a home amongst students and academics. It is considered as one of the best note-taking platforms and is under-leveraged in business and organizational contexts.

One of OneNote's greatest strengths is that it enables you to organize your notes comprehensively.

Top-level parent categories are known as notebooks. Within notebooks, you'll find sections and then individual pages. We've used several note-taking apps and believe OneNote is the best for keeping your thoughts and ideas in order.

Another strength is that you can access your files when you need them, because full integration with Microsoft OneDrive means your notes, sketches, and brainstorming are available across all your devices through the power of cloud sync technology. And with software available on iOS, macOS, iPadOS, Windows, and Android, we're sure that accessing your files won't be an issue. There is also a web app for taking notes while on the move.

Most likely, you'll need to share your notes with colleagues or clients, and fortunately, OneNote makes this straightforward. It is possible to invite other users to view and edit a notebook, even if they don't have their own Microsoft 365 subscription. It's also possible to export specific pages in PDF format. OneNote's user interface is also impressive and feature rich. It enables users to write and highlight text, sketch free hand, insert images, graphs, stickers, equations, and even add audio clips to their notes.

### WEB DEVELOPMENT CERTIFICATE PROGRAM (WDCP-108 Hours)

Web developers design and create websites, manage website speed and performance, and create website content. According to the U.S. Bureau of Labor Statistics, web development is the fastest growing career in today's economy. Employment of web developers is projected to grow by 27% in 2024. Web development is listed as one of the best technology careers and offers freedom and flexibility. One out of seven web developers are self-employed. The average salary for an entry-level web developer is now \$50,157.

**Job Titles:** Web Designer, Web Developer.

#### WDCP Program Courses:

Course ID	Course Name	Clock Hours	Certification Exam
WDCP-701	Intro to Web Development	54	Web Designer Apprentice
WDCP-702	Fundamentals of Web Development	54	Web Developer Apprentice
<b>Total Clock Hours</b>		<b>108</b>	

#### *Introduction to Web Development - 54 CLOCK HOURS - (WDP-701)*

**Textbook:** Web Development & Design Foundations - HTML, 8<sup>th</sup> Edition by Terry Felk-Morris

**Description:** Nobody builds website by writing code anymore! This course is designed to teach students real-world web development skills that will enable them to create beautiful, functional, fully featured websites for themselves, family, friends and colleagues without writing code. Students explore the prevailing vocabulary, tools, and standards used in the field and learn how the various facets—including HTML5, XHTML, CSS, JavaScript, Ajax, multimedia, scripting languages, HTTP, clients, servers, and databases—function together in today's web environment.



This course is ideal for those wanting to enter the web development field or those in other professional positions looking to take on web development responsibilities at work. Students will learn core languages and technologies from both the client and server side. They will also learn key non-technical skills like project management to impress employers and succeed in any web development environment.

### Course Topics

- HTML, XHTML, HTTP
- CSS Basics, Wordpress, Java Script, Ajax
- Clients, servers, databases

### Organization

This is a lecture course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods or for homework. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objective quizzes are given daily, and there is a mid-term exam and a comprehensive final exam.

**Prerequisites:** Basic familiarity working with computers, including file management.

**Certification Exam Prep:** Certified Web Designer Apprentice

*Fundamentals of Website Development - 54 CLOCK HOURS - (WDP-702)*

**Textbook:** Learning PHP, MySQL, JavaScript, CSS and HTML, 3<sup>rd</sup> Edition by Robin Nixon

**Description:** This course provides a solid web development foundation, focusing on content and client-side (browser) components (HTML5, XHTML, CSS, JavaScript, multimedia), with an overview of the server-side technologies. In addition, software and services that are easily incorporated into a website (for example, maps, checkout, blogs, content management) are surveyed and discussed. Students produce an interactive website on the topic of their choice for the final project and leave the course prepared for more advanced and focused web development studies. By the end of this project, students will create a full web-site that is attractive and user friendly using a free content management system, WordPress. They will learn how to create a website utilizing themes and plug-ins using the web creation tool. They will be provided a virtual space to showcase their business with customers who want to stay connected.

### Course Topics

- Learn Wordpress, HTML, CSS, PHP, and dynamic tools such as JavaScript and AJAX
- Design and build dynamic, modern websites
- Programming and coding skills
- Communication, project management and organizational skills

## Organization

This course is project-driven, based on real-world scenarios and focuses on practical skills for professional development. Topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods or for homework. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objective quizzes are given daily, and there is a mid-term exam and a comprehensive final exam.

## Prerequisites

Basic familiarity working with computers, including file management. The Introduction to Web Development course is recommended. Although a programming background is helpful, it's not a requirement for learning the powerful features of JavaScript. While this is not specifically a programming course, students will learn a great deal about programming while learning JavaScript.

**Certification Exam Prep:** Certified Web Developer Apprentice

## PROJECT MANAGEMENT PROFESSIONAL PROGRAM (PMPP-72 Hours)

Project Management Professional (PMP) Program focuses on developing and improving the performance of projects and programs in technology, finance/accounting, building construction, and industrial expansion, or in any other field that requires project managers to initiate the projects. After completion of this training, individuals will be able to deploy projects with competency in their current fields of expertise.

In this program, students will gain the essentials needed to pass the PMP and CAPM exams. Learning activities in this program targets each of the three major learning styles: visual, auditory, and kinesthetic.

The benefits of achieving project management (PM) certifications range from higher potential earnings, to achieving organizational objectives and recognition, to confidence building, and comradery from belonging to a distinguished and like-minded group of project management certified professionals.

This program is developed in alignment with PMI/CompTIA standards. Upon completion of Introduction to Project Management and Advanced Project Management, students will be prepared for the CAPM exam and/or the Project Management Institute (PMI) certification exam.

**Job Titles:** Corporations rely on project managers to oversee all aspects of a project so that everything flows seamlessly and the timeline, scope, and budget goals are met. As more organizations use project-based methods to accomplish tasks, experienced project managers are in higher demand.

**PMPP Program Courses:**

Course ID	Course Name	Clock Hours	Certification Exam
PMPP-301	Intro to Project Management	36	CAPM Exam
PMPP-302	Advanced Project Management	<u>36</u>	PMI Cert Exam
<b>Total Clock Hours</b>		<b>72</b>	

***Introduction to Project Management - 36 CLOCK HOURS (PMP- 301)***

**Textbook:** An Introduction to Project Management, 6th Edition by Kathy Schwalbe

**Description:** This course is an introduction to crucial project management concepts. Students will gain an understanding of the fundamental knowledge, terminology, and processes of effective project management. This course is ideal for less-experienced project practitioners who want to demonstrate their commitment to project management, improve their ability to manage larger projects, earn additional responsibility and stand out to potential employers.

**Course Topics**

The process groups and knowledge areas covered include planning, scoping, scheduling, budgeting, communication, and change management.

**Organization**

This is a lecture course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods or for homework. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objective quizzes are given daily, and there is a mid-term exam and a comprehensive final exam.

**Prerequisites**

The school policy requires all students to have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. Note: To apply for the CAPM certification, you must have one of the following:

- A secondary-level diploma (high school or equivalent) and at least 1,500 hours of project management experience
- Non-graduated require 5 years/7500 hours of professional project experience
- Twenty-three hours of project management education by the time you sit for the exam

**CAPM Exam Prep:** Upon completion of Introduction to Project Management students may apply for the CAPM certification exam.

### *Advanced Project Management - 36 CLOCK HOURS - (PMP-302)*

**Textbook:** Advanced Project Management: Best Practices on Implementation by Harold Kerzner

**Description:** This course is an in-depth study of advanced project management topics such as risk management, resource management, cost management and measurement, as well as contract and vendor management. Project Management Body of Knowledge (PMBOK) and Case Study will be emphasized.

**Course Topics:** The 5 process groups and 10 knowledge areas as prescribed by PMI - PMBOK v5

#### **Organization**

This is a lecture course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods or for homework. Students are encouraged to read assigned chapters prior to attending class. Students are divided into groups for optimum lab-work execution and completion. Objective quizzes are given daily, and there is a mid-term exam and a comprehensive final exam.

#### **Prerequisites**

The school policy requires all students to have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. Note: To apply for the PMI certification, you must have successfully completed one of the following:

- Non-graduates require 5 years/7500 hours of professional project experience
- Graduates require 3 years/4500 hours of professional project experience
- Thirty-five hours of project management education by the time you sit for the exam

#### **Certification Exam Prep**

Upon completion of Introduction to Project Management and Advanced Project Management courses, students will be prepared for the Project Management Institute (PMI) certification exam.

Project Management Professional (PMP) certification, established by the Project Management Institute (PMI), is one of the most valued and respected credentials in project management. Earning and maintaining this PMI project management certification demonstrates a solid foundation of experience and competency in effectively managing projects and project teams.

## PROFESSIONAL TELECOM PROGRAMS

### PROFESSIONAL TELECOM PROGRAMS

Telecommunications (Telecom) Programs provide a combination of instructor led courses and hands on labs that enhance the required IT and Telecom skills needed for those seeking immediate employment or to advance their career within the telecommunications industry. These programs offer the types of technical information for developing a highly skilled workforce that meets the needs of employers that are often looking for individuals who hold a state license or an industry-recognized credential.

#### CERTIFIED CABLE INSTALLATION PROGRAM (CCIP-144 Hours)

This program prepares students for entry-level positions within the Telecommunications and Information Technology industries by providing foundations, theory and hands-on experience to function effectively on the job. The program provides information on the latest premises cabling installation to include cat5e, cat 6, fiber optic, outside plant and the introduction to point of sales wired and wireless technologies installed in today's new construction and renovation projects and sets the foundation of a copper-based structured cabling system installation.

A significant amount of class time will be spent on industry best practices for the installation, termination, testing and retrofitting of copper cable. The certifying body is the Fiber Optic Association (FOA).

**Job Titles:** Cable Installer, Cable Technician

#### CCIP Program Courses:

Course ID	Course Name	Clock Hours	Certification Exam
CCIP-401	Certified Premises Cabling Tech	72	FOA CPCT CERT
CCIP-402	Certified Fiber Optic Tech	<u>72</u>	FOA CFOT
<b>Total Clock Hours</b>		<b>144</b>	

#### *Certified Premise Cable Technician - 72 CLOCK HOURS - (CCIP-401)*

**Textbook:** FOA Reference Guide to Premises Cabling by Jim Hayes

**Description:** This course is designed to provide entry level cable installers with the background, knowledge and basic skills needed to function effectively on the job.

## Course Topics

- Overview of Cabling
- Cabling Terminology
- Communications Networks and Applications
- Copper Cabling
- Structured Wiring Terminations
- Wireless Connections
- Designing Premises Cabling Systems
- Broadband Premises Installation

## Organization

This is an instructor-led course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods or for homework. Students are encouraged to read assigned chapters prior to attending class. Students may be divided into groups for optimum lab-work execution and completion. Students will be required to pass a comprehensive final exam.

## Prerequisites

The school policy requires all students to have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. No prior experience is required.

## Cable Installer Exam Prep

Students must be able to distinguish between different colors and possess manual dexterity to complete fine motor tasks. Candidates are required to have a general understanding of premise cabling knowledge. The Certification exam will be administered during the last day of class

*Certified Fiber Optic Technician - 72 CLOCK HOURS - (CCIP- 402)*

**Textbook:** FOA Reference Guide to Fiber Optics by Jim Hayes

**Description:** This course is designed to provide students with the knowledge and skills necessary for a structured cabling fiber optic systems installation. Students will receive an overview of fiber optic transmission principles, professionalism, life-safety and general industry best practices, as related to fiber optic. An advanced study of fiber optic splicing, testing and troubleshooting will also be covered.

## Course Topics:

- Introduction to Fiber Optics
- Fiber Optic Terminology
- Fiber Optic Communications
- Fiber Optic Transmission Systems and Components

- Optical Fiber
- Fiber Optic Cable
- Connectors and Splices
- Fiber Optic Testing
- Fiber Optic Network Design
- Fiber Optic Network Installation

### **Organization**

This is an instructor-led course in which topics are presented by the instructor, practice hands-on labs are explained and assigned by the instructor and are completed by students during lab periods or for homework. Students are encouraged to read assigned chapters prior to attending class. Students may be divided into groups for optimum lab-work execution and completion. There is a comprehensive final exam.

### **Prerequisites**

The school policy requires all students to have a high school diploma or GED certificate with a minimum 9th grade math and reading comprehension level. No prior experience is required.

### **Exam Prep**

Students must be able to distinguish between different colors and possess manual dexterity to complete fine motor tasks. A general understanding of fiber optic knowledge is required.

## **WIRELESS BROADBAND TECHNICIAN PROGRAM (WBTP-144 Hours)**

The telecommunications industry within the sector of information and communication technology is made up of all telecommunications/telephone companies and internet service providers and plays the crucial role in the evolution of mobile communications and the information society.

Telecom today is less about voice (telephone calls) and increasingly about text (messaging, email) and images (e.g. video streaming). High-speed internet access for computer-based data applications such as broadband information services and interactive entertainment is pervasive. Mobile devices and related broadband connectivity continue to be more and more embedded in the fabric of society today and they are key in driving the momentum around some key trends such as video streaming, Internet of Things (IoT), and mobile payments.

The Wireless Broadband Technician Program provides students with the fundamentals to become telecommunications equipment installers and repairers, also known as telecom technicians, set up and maintain devices or equipment that carry communications signals, connect to telephone lines, and access the Internet.

Telecommunications equipment installers and repairers typically need postsecondary education in electronics, telecommunications, or computer technology and receive on-the-job training. Industry certification is required for some positions. Once hired, telecom technicians receive on-the-job training, typically lasting a few months. Training involves a combination of classroom instruction and hands-on work with an experienced technician. In these settings, workers learn the equipment's internal parts and the tools needed for repair. Technicians who have completed postsecondary education often require less on-the-job instruction than those who have not.

**Licenses, Certifications, and Registrations.** Some technicians must be certified to perform certain tasks or to work on specific equipment. Certification requirements vary by employer and specialization. Organizations, such as the Society of Cable Telecommunications Engineers and the Association of Certified Wireless Network Professionals, offer certifications for telecom technicians. Some manufacturers also provide certifications for working with specific equipment.

**Job Titles:** Broadband Technician/Specialist, Certified Wire Technician/Specialist, Central Office Technician, Headend Technician, Telecommunications Line Installers and Repairers

**WBTP Program Courses:**

Course ID	Course Name	Clock Hours	Certification Exam
WBTP-604	Wireless Broadband Fundamentals	54	CWNP CWT-100
	Lifesaving Skills	36	OSHA-10/30; First Aid/CPR
	Soft Skills/Customer Service	18	N/A
WBTP-605	Broadband Wireless Installer	<u>36</u>	SCTE-BWS
	<b>Total Clock Hours</b>	<b>144</b>	

*Wireless Broadband Fundamentals - 54 CLOCK HOURS - (WBT-504)*

**Textbook:** CWT-100: Certified Wireless Technician: Official Study Guide by Tom Carpenter, Fehmi Sakkal, et al

**Description:** The Wireless Broadband Fundamentals course is designed to educate participants on installation and commission of broadband service at client premises, providing technical and customer support for clients both during and after sales, assist with marketing in the field, to administer billing and management information reporting, to be familiar with the equipment and how to use it, as well as the risks associated with working in the industry. Students will learn to establish a safe work environment, safe work practices, and the safe implementation of emergency procedures.



Students will become familiar with the following duties of a broadband technician:

- Install communications equipment in offices, private homes, and buildings that are under construction.
- Set up, rearrange, and replace routing and dialing equipment.
- Inspect and service equipment, wiring, and ethernet and fiber ports.
- Repair or replace faulty, damaged, and malfunctioning equipment.
- Test repaired, newly installed, and updated equipment to ensure that it works properly.
- Adjust or calibrate equipment settings to improve its performance.
- Keep records of maintenance, repairs, and installations.
- Demonstrate and explain the use of equipment to customers.
- Demonstrate use of ticketing, closeout and maintenance systems for wireless buildouts.
- Understand the convergence of broadband and wireless infrastructure in both in building and campus area environments.

Telephony, computer, and cable telecommunications systems rely on equipment to process and transmit vast amounts of data. Telecommunications equipment installers and repairers install and service this equipment. Students will learn about the many different tools to inspect equipment and diagnose problems. For instance, to locate distortions in signals, they may employ spectrum analyzers and polarity probes. They also commonly use hand tools, including screwdrivers and pliers, to take equipment apart and repair it.

Students will learn the activities needed when they work at a client's location. They must track hours worked, parts used, and costs incurred. Workers who set up and maintain lines outdoors are classified as line installers and repairers. This course will also prepare students to recognize industry hazards through completing an Occupational Safety & Hazards Administration (OSHA) Construction Jobsite 10-hour training certificate, as well as, training for first aid, breathing, and cardiac emergencies involving adults, children and infants that meets OSHA/workplace requirements.

This course is intended to give new workers, or workers who have had no official training, the basics to recognize the hazards that may occur on the job and the unique qualifications needed for working at heights. This includes the physical requirements, a demonstration of the knowledge and practical skills required to safely perform this work activity, as well as recognition and mitigation of the hazards associated with the telecommunication industry.

Included in the broadband course, students will be required to complete 10 hours of OSHA training; 26 hours of safety and life-saving skills training for CPR and First Aid, and 18 hours of soft skills training that assist new technicians entering into Corporate America. These certifications are considered standard entry level certifications for most hiring companies.

Soft skills provide a set of behaviors and traits that relate to an individual's ability to interact with other people, whether it be one-on-one or in a group. Soft skills are contexted by the culture and

desired behaviors of an organization. Soft skills have become just as important as hard skills. Without the necessary interpersonal skills, the technician will not be successful in engaging the right people, understanding perspectives and building the framework that will be purposefully used by the organization. Seven separate classes comprise this training, valuable to success of the broadband technician.

### **Course Topics**

- Introduction to OSHA-10 (Occupational Safety & Health Administration)
- American Red Cross CPR/First Aid/AED
- Safety & Life Saving Skills Training: Blood borne Pathogens
- Soft Skills Training for the Workplace
- WI-FI Technology Standards and Certifications
- Radio Frequency (RF) Fundamentals
- Job Site Survey and Installation
- Applications, Support, and Troubleshooting
- Security and Compliance
- Bucket Truck and Ladder Safety
- Cabling, Grounding and Weatherproofing
- Small Cell and Micro Cell Deployments
- Introduction to Internet of Things (IOT)
- PMI Testing and Analysis

### **Organization**

This course is instructor-led and includes a combination of lectures, custom and generic video programs, slides and equipment. Demonstrations are also used to ensure that students understand hazard assessment and protection. The material covered includes pre-site surveys and planning, environmental and structural hazard assessment, tools and equipment, body mechanics, meter operations and bucket truck techniques.

Students will perform installations during practical lab sessions, perform upgrades and repairs of select cable products and services, install aerial and underground cable drops and outlets, install and configure computers, wireless routers, television sets, cable set-top equipment and other similar equipment, learn about installation of meters, learn the importance of equipment maintenance and the wearing of personal protective equipment.

By reinforcing safe work practice theories through exercises and scenarios, we allow an immediate opportunity for students to apply these concepts in a real-world environment. Our goal is to provide participants with the necessary knowledge and skills to be competent and confident broadband technicians.

## Prerequisites

Higher education typically isn't a large concern in a broadband technician position. A High school Diploma is usually the minimum requirement. If you plan to do more than basic technician installation and administration, such as RF maintenance, then a mechanical engineering, telecommunications, electronics or computer science degree may be required. Technical instruction in basic electronics, telecommunications, and computer science offered in community colleges and technical schools may be particularly helpful. A commitment and the ability to work hard, teamwork and leadership qualities, all of which are important in being a broadband technician team member.

## Certification Exam Prep

The Successful completion of this course is dependent upon passing the written exams and satisfactory demonstration of skills. Upon successful completion of this course participants will receive a certificate for Adult and Pediatric First Aid/CPR/AED valid for two years, the 10-hour OSHA Construction Industry outreach training certificate and a Certificate of Completion. A final exam will be given at the conclusion of the course and, upon successful completion of the exam, the participant will be issued a Certificate of Completion.

### *Broadband Wireless Installer - 36 CLOCK HOURS - (WBT-505)*

**Textbook:** CWT-100: Certified Wireless Technician: Official Study Guide by Tom Carpenter, Fehmi Sakkal, et al

**Description:** The SCTE ISBE Broadband Wireless Specialist (BWS) Certification describes the knowledge of an entry-level individual who will plan, install and trouble- shoot wireless services at the customer's premises and In Building Wireless. Successful candidates have the knowledge to carry out basic wireless installations and troubleshoot these wireless networks in an efficient manner. Networks include 802.11 technologies, as well as emerging CBRS (Citizen Band Radio Services) or also known as Private LTE.

The SCTE•ISBE Broadband Wireless Specialist (BWS) Certification describes the knowledge of an entry-level individual who will plan, install and trouble- shoot wireless services at the customer's premises. Successful candidates have the knowledge to carry out basic wireless installations and troubleshoot these wireless networks in an efficient manner. The FCC has mandated a new piece of technology policy. The agency has set aside 150 MHz of wireless spectrum in the 3.5 GHz cellular band for citizens and companies to share as they see fit, rather than auctioning it off for billions to the highest bidder. Citizen Broadband Radio Service (CBRS) shared spectrum could change the course of wireless communications in the United States. In the

next 5 years, Universities, Military Installations, Large Sports Complexes and Enterprise Campuses will all be deploying these new Private LTE networks.

Students will become familiar with the following duties of a broadband technician:

- In building RF mapping and planning technicians and equipment
- Optimizing placement and design of Wireless Transmitters and APs to adequately cover service areas
- Installing, testing and maintaining various network components of 3.65Ghz network elements such as IOT monitors, cameras, POS trackers and automated devices for building monitoring and maintenance
- Understanding of key elements of telco closets, key power and telecom terminating points
- Building Access requirements, Rooftop Safety Procedures, Working after hours, E911 Systems Designs and Implementations
- Installation of GIS tracking and monitoring equipment for RAN and CPE
- Test repaired, newly installed, and updated equipment to ensure that it works properly
- Adjust or calibrate equipment settings to improve its performance
- Keep records of maintenance, repairs, and installations
- Demonstrate and explain the use of in building wireless equipment to customers
- Demonstrate use of ticketing, closeout and maintenance systems for wireless buildouts
- Understand the convergence of broadband and wireless infrastructure in both in building and campus area environments.

Telephony, computer, and cable telecommunications systems rely on equipment to process and transmit vast amounts of data. Telecommunications equipment installers and repairers install and service this equipment. Students will learn about the many different tools to inspect equipment and diagnose problems. For instance, to locate distortions in signals, they may employ spectrum analyzers and polarity probes. They also commonly use hand tools, including screwdrivers and pliers, to take equipment apart and repair it.

Students will learn the activities needed when they work at a client's location. They must track hours worked, parts used, and costs incurred. Workers who set up and maintain lines outdoors are classified as line installers and repairers.

Soft skills provide a set of behaviors and traits that relate to an individual's ability to interact with other people, whether it be one-on-one or in a group - especially dealing with Building Management, Maintenance and Office Tenants.. Without the necessary interpersonal skills, the technician will not be successful in engaging the right people, understanding perspectives and building the framework that will be purposefully used by the organization.

## Course Topics

- PIM Certification and Spectrum Analysis
- Private LTE Network Site Walks, Design and Planning
- RF Mapping and Antenna Placement
- Stealth Wiring Placement and Higher end Construction Design for hidden antenna placement
- Radio Frequency (RF) for 3.65 and In Building Wireless
- DAS Applications, Support, and Troubleshooting
- Security and Compliance for In Building Wireless Safety
- Bucket Truck, Ladder Safety and working in Rafters
- Cabling, Grounding and Weatherproofing for IPV-6 Structured Cabling
- Small Cell and Micro Cell Deployments
- Introduction to Internet of Things (IOT)

## Organization

This course is instructor-led and includes a combination of lectures, custom and generic video programs, slides and equipment. Demonstrations are also used to ensure that students understand hazard assessment and protection.

By reinforcing safe work practice theories through exercises and scenarios, we allow an immediate opportunity for students to apply these concepts in a real-world environment. Our goal is to provide participants with the necessary knowledge and skills to be competent and confident broadband technicians.

## Prerequisites

Higher education typically isn't a large concern in a Wireless Broadband Specialist position. A High school Diploma is usually the minimum requirement. If you plan to do more than basic technician installation and administration, such as RF maintenance, then a mechanical engineering, telecommunications, electronics or computer science degree may be required. Technical instruction in basic electronics, telecommunications, and computer science offered in community colleges and technical schools may be particularly helpful. A commitment and the ability to work hard, teamwork and leadership qualities, all of which are important in being a broadband technician team member.

## Certification Exam Prep

The Successful completion of this course is dependent upon passing the written exams and satisfactory demonstration of skills. Upon successful completion of this course participants will receive a certificate for Adult and Pediatric First Aid/CPR/AED valid for two years, the 10-hour

OSHA Construction Industry outreach training certificate and a Certificate of Completion. A final exam will be given at the conclusion of the course and, upon successful completion of the exam, the participant will be issued a Certificate of Completion.

**CERTIFIED WIRELESS TOWER CLIMBER PROGRAM (CWTCP-120 Hours)**

The Certified Wireless Tower Climber Program provides students with the fundamentals to become a recognized leader in the wireless service provider industry. As a Certified Tower Climber, students will stand out from the competition when applying for wireless and telecommunication technology jobs. This program is based on a curriculum that meets all federal standards for training in the USA. It is designed to include OSHA required training listed in CFR’s 1910/1926 related to work at wireless communication sites.

**Job Titles:** Tower Climber, Tower Technician I & II; Tower Foreman

**CWTCP Program Courses:**

Course ID	Course Name	Clock Hours	Certification Exam
CWTCP-601	Tower Climber Safety & Rescue	60	Authorized Climber/Rescuer;
CWTCP-602	Wireless Construction Standard	60	OSHA-10/30; First Aid/CPR
<b>Total Clock Hours</b>		<b>120</b>	

*Tower Climber Safety & Rescue - 60 CLOCK HOURS - (WTCP-601)*

**Textbook:** ComTrain's Tribute to Safety: Tower Climbing Safety & Rescue - 4th Edition by Jr. Winton W. Wilcox

**Description:** The Tower Climber Safety & Rescue course is designed to educate students on fall protection standards and techniques, the equipment they must wear and how to use it; as well as the risks associated with working at height. Students will learn to establish a safe work environment, safe work practices, and the safe implementation of emergency procedures.

We are committed to ensuring that all of our students meet the unique qualifications needed for working at height. This includes the physical requirements, a demonstration of the knowledge and practical skills required to safely perform elevated work activity, as well as recognition and mitigation of the hazards associated with the Telecommunication industry.

This program will also prepare students to recognize and care for a variety of Occupational Safety & Hazards Administration (OSHA) Construction Jobsite 30-hour training certificate, as well as, first aid, breathing, and cardiac emergencies involving adults, children and infants and meets OSHA/workplace requirements.

## Course Topics

- Fall Protection Hierarchy – orientation, systems and theory
- Summary of applicable standards
- Introduction to OSHA-10 & OSHA-30
- American Red Cross CPR/First Aid
- Pre-job Planning and Site Analysis
- Basic Principles of Aerial Lifts
- Anchor points — determination and design criteria
- Components of Personal Fall Arrest Systems
- Techniques/Mechanics of Climbing
- Basic Rigging Principles
- Industry Hazards — assessment and mitigation
- Equipment Care and Maintenance
- Bucket Truck Certification
- Rescue – Practice, Theory, and Rescue Plans

## Organization

By reinforcing safe work practice theories through exercises and scenarios, we allow an immediate opportunity for students to apply these concepts in a real-world environment. Our goal is to provide students with the necessary knowledge and skills to be competent and confident tower technicians. A combination of lectures, custom and generic video programs, slides and equipment demonstrations are also used to ensure that students understand hazard assessment and protection.

The material covered includes pre-climb safety and planning, environmental and structural hazard assessment, tools and equipment, body mechanics, suspension procedures and emergency techniques. Students will observe a video in the classroom demonstrating how to climb and descend a tower using either a safe climb device, a vertical lifeline rigged as a temporary safe climb device, or both. The video will show how climbers maneuver across the structure maintaining 100% connection and working with both lanyards and SRLs.

**Note:** Students will not train on an actual tower during the class. Those students entering into employment may be trained on a tower with the employer to demonstrate the actual skills needed for safety climbing and rescue as viewed in the video. Each student will be shown two rescue exercises that use an ascending/descending system, a suspension device, or both. One rescue will be done as the simulated fallen climber and one as the rescuer.

## Prerequisites

Higher education typically isn't a large concern in a tower climber position. High school is usually the minimum requirement. If you plan to do more than general tower climbing and repair, such as RF maintenance, then an RF or a mechanical engineering degree may be required.

If you don't have tower climbing experience, then construction experience is a big plus, especially if it involved scaffolding or working at heights at all. Similarly, work at heights with wind turbines, ships, or electrical also looks good on a resume. Companies and recruiters also like to see

military experience. Not only does it show commitment and the ability to work hard, it also shows teamwork and leadership qualities, all of which are important in being a tower climber.

The background and experience required heavily depends on the company. Many companies don't even bother with non-experienced tower climbers. Others, however, like hiring inexperienced people because it means they're not already stuck in their ways of performing various job-related tasks.

### **Certification Exam Prep**

The Successful completion of this course is dependent upon passing the written exam and satisfactory demonstration of skills on the tower. The online portion must be completed prior to the classroom skill session and must be taken on a Flash-enabled computer with a high-speed Internet connection. Upon successful completion of this course students will receive a certificate for Adult and Pediatric First Aid/CPR/AED valid for two years. Students will also receive the 30-hour OSHA Construction Industry outreach training certificate.

This course meets the Industry Criteria for Accepted Practices in Safety, Health, and Environmental Training as per ASSE/ANSI Z490.1, the NATE CTS and ASSE/ANSI Z359.2, the minimum requirements for a Comprehensive Managed Fall Protection Program, found in the ASSE/ANSI Z359 Fall Protection Code. (Certification is valid for 2 years.) Certifications are recognized by all four major tower companies and wireless contractors in the county.

### ***Wireless Construction Standard - 60 CLOCK HOURS - (WTCP-602)***

**Textbook:** OSHA Construction Standards and Regulations (29 CFR 1926) by Mancomm

**Description:** This course is intended to give new workers, or workers who have had no official training, the basics to recognize the hazards that may occur on the job and build a foundation of knowledge for additional classroom and practical training. This course will prepare students for better comprehension of the materials they are being taught.

### **Course Topics**

- Basic Capstan Hoist Principles
- Basic Gin Pole Principles
- Workplace Hazardous Materials Information System.
- Crane Spotter and Signal Person Principles
- General Safety & Health Provisions
- Occupational Health & Environmental Controls
- Fire Protections and Prevention
- Materials Handling, Storage, Tools (Hand & Power)
- Excavations and Scaffolds
- Fiber to the Antenna; Antenna Line Sweeps
- PIM Testing and Spectrum Analyzer



## Organization

By reinforcing safe work practice theories through exercises and scenarios, we allow an immediate opportunity for students to apply these concepts in a real-world environment. Our goal is to provide students with the necessary knowledge and skills to be competent and confident tower technicians. A combination of lectures, custom and generic video programs, slides and equipment demonstrations are used to ensure that students understand hazard assessment and protection. The material covered includes pre-climb safety and planning, environmental and structural hazard assessment, tools and equipment, body mechanics, suspension procedures and emergency techniques.

## Prerequisites

Higher education typically isn't a large concern in a tower climber position. High school is usually the minimum requirement. If you plan to do more than general tower climbing and repair, such as RF maintenance, then an RF or a mechanical engineering degree may be required.

If you don't have tower climbing experience, then construction experience is a big plus, especially if it involved scaffolding or working at heights at all. Similarly, work at heights with wind turbines, ships, or electrical also looks good on a resume. Companies and recruiters also like to see military experience. Not only does it show commitment and the ability to work hard, it also shows teamwork and leadership qualities, all of which are important in being a tower climber.

## Certification Exam Prep

The Successful completion of this course is dependent upon passing the written exam and satisfactory demonstration of skills on the tower. A final exam will be given at the conclusion of the course, and upon successful completion of the exam, the student will be issued a Certificate of Completion and a Wallet Card.

## APPENDIX A – VIDEO CONFERENCING PLATFORM

**Zoom/and or other Video Conferencing Software**- cloud-based video conferencing platform that can be used for video conferencing meetings, audio conferencing, webinars, meeting recordings, education, and live chat. Used to enhance and expand classes with powerful collaboration tools, including video breakout rooms, multi-sharing, polling, and group chats. Create and repurpose video content into easily digested hosted videos that allow students to learn at their own pace. These Video Conferencing Programs allow synchronous class sessions, in which everyone logs in to the web conferencing system at a pre-scheduled time, allowing students to fully engage in the courses led-by the instructor. Other features allowed by instructors and their students:

1. **Share Web Cameras**: This feature gives teachers the ability to share their camera and also enable their students to share their cameras.
2. **Course Library**: Instructors can also share content directly from their course library, simply by going through the content library and selecting the desired courses they want to share with their students from their course server.
3. **Rich Content**: Teachers can share rich content like videos from their content library with all their students.
4. **White Boarding**: White Boarding is a feature that allows instructors to quickly and easily share content or use the White Board for instructional purposes.
5. **Poles and Quizzing**: These Programs have a feature that enables teachers to conduct Polls and Quizzes, allowing teachers to gauge their students' comprehension and knowledge. Quizzing allows teachers to individually track students while they are taking a quiz in the virtual classroom. This feature lets instructors gauge student responses to ensure that teachers are delivering the best material possible and that the students' level of comprehension is where it needs to be.
6. **The File Share**: This feature lets instructors distribute course work and or hand out homework whenever they desire to do so.
7. **Break Out Rooms**: This feature allows instructors to divide their students into smaller groups, letting them work on a task as a group; developing content perhaps, loading material and then presenting it back in the main room to all the other students.
8. **Recording for Later Viewing**: It comes loaded with a built-in recorder that allows you to record all your online courses, online presentations or meetings without involving any additional software. At the end of each class, instructors can provide an easy to remember name to that day's lecture. Instructors can let their students have access to the recordings to be reviewed for study and exam preparation or to ensure students are caught up if they miss a few minutes of class or an entire session. Students can also download and save the recording on their PC for future viewing.

## **Hardware, System and Network requirements for Video Conferencing**

Remote students attending Live Distance Learning sessions with the Vets Group will need to use devices meeting the following minimum specifications. In most cases, students may only need to update the software (Operating Systems) on the devices they may already own. Trying a software update could save a student from unnecessary fiscal expenditures.

Video Conferencing enables students to participate in their Live Distance Learning classroom via Computers, Tablets and other Mobile devices.

### **Windows**

- 1.4 GHz Intel Pentium 4 or faster processor (or equivalent)
- Windows 10, 8.1 (32-bit/64-bit), Windows 7 (32-bit/64-bit)
- 512 MB of RAM (1 GB recommended)
- Microsoft Internet Explorer 11 or later, Windows Edge browser, Mozilla Firefox, Google Chrome

### **Mac OS**

- 1.83 GHz Intel Core Duo or faster processor
- 512 MB RAM (1 GB recommended)
- Mac OS X 10.11, 10.12 and 10.13
- Mozilla Firefox, Apple Safari, Google Chrome

### **Linux**

- Ubuntu 14.04 and 16.04; Red Hat Enterprise Linux 6
- Google Chrome
- Adobe Flash Player 23.0

### **Virtual Environment**

- Citrix XenApp 7.5 and 7.11
- Horizon version 6.2

### **Mobile**

- Google Android 4.4 or later
- Apple iOS: iOS 8.1.2 or later

### **Network requirements**

- Bandwidth: 512 Kbps for participants, class attendees, and end users of Adobe Connect applications.
- Connection: DSL/cable (wired connection recommended) for Adobe Connect presenters, administrators, and trainers.

### **Technical Support**

If you are having difficulty determining specifications of your devices, updating or installing applications needed for your Live Distance Learning course, please let your instructor or school counselor know as soon as possible so that they can connect you with someone in our IT Helpdesk Services Department. You may contact the IT Helpdesk Services department directly at ([ITHelpdeskServices@vetsgroup.org](mailto:ITHelpdeskServices@vetsgroup.org)) or call (202) 822-0011 for support or suggestions before you purchase required equipment.

**Note:** Other video conference platforms with the same features may be used in place of Zoom if needed, i.e. Microsoft TEAMS. Zoom Video Communications is a company headquartered in San Jose, California that provides remote conferencing services using cloud computing. Zoom offers communications software that combines video conferencing, online meetings, chat, and mobile collaboration.

**APPENDIX B - 2023 PROGRAMS - TUITION & FEES**

(Amended 8-4-22)

**2023 Programs - Tuition & Fees**

**Note:** All Programs are eligible for GI Bill® Veterans

PROGRAMS	Program Code	Tuition	Books	Tech Fee	Exam Vouchers	Total	Status
PC Specialist Program (PCSP-162 hrs)	PCSP	\$ 2,460	\$ 50	\$ 300	\$ 250	\$ 3,060	Current
Network Specialist Program (NSP-72 hrs - Net+)	NSP	\$ 2,220	\$ 75	\$ 300	\$ 159	\$ 2,754	Current
Security Specialist Program (SSP-72 hrs - Sec+)	SSP	\$ 2,220	\$ 75	\$ 300	\$ 215	\$ 2,810	Current
AWS Cloud Computing Program (CCP-90 hrs)	CCP	\$ 1,950	\$ 95	\$ 300	\$ 200	\$ 2,545	Current
Cyber Security Professional Level-1 Program (CEH - 72 hrs)	CSPP-L1	\$ 2,220	\$ 75	\$ 300	\$ 600	\$ 3,195	Current
Cyber Security Professional Level-2 Program (CISSP - 72 hrs)	CSPP-L2	\$ 2,220	\$ 75	\$ 300	\$ 600	\$ 3,195	Current
Microsoft Office Specialist Program (MS365 - 108 hrs)	MSOP	\$ 1,500	\$ 95	\$ 300	\$ 330	\$ 2,225	Current
Web Development Certificate Program (WDCP - 108 hrs)	WDCP	\$ 2,220	\$ 85	\$ 300	\$ 209	\$ 2,814	Current
Project Management Professional Program (PMP - 72 hrs)	PMPP	\$ 2,700	\$ 150	\$ 300	\$ 600	\$ 3,750	Current
Certified Cable Installation Program (CCIP - 144 hrs)	CCIP	\$ 2,250	\$ 100	\$ 400	\$ 300	\$ 3,050	Current
Wireless Broadband Technician Program (WBTP - 144 hrs)	WBTP	\$ 2,250	\$ 100	\$ 350	\$ 200	\$ 2,900	Current

Certified Wireless Tower Climber Program (CWTCP - 120 hrs)	CWTCP	\$ 4,862	\$ 70	\$ 500	\$ 200	\$ 5,632	Current
<b>PROGRAMS</b>	<b>Program Code</b>	<b>Tuition</b>	<b>Books</b>	<b>Tech Fee</b>	<b>Exam Vouchers</b>	<b>Total</b>	<b>Status</b>

**GENERAL PRICING NOTES:**

<sup>1</sup>The cost for textbooks can vary based on source and changes in market value. GI Bill students are not billed for books and must obtain them own their own.

<sup>2</sup>The cost for Exam Vouchers is based on pricing provided via Pearson Vue for public testing centers. GI Bill students must pay for their exam vouchers separately.

<sup>3</sup>The Technology Fee includes the cost for setting up the lab equipment, software installation, reimaging computers, and virtual lab tools that will be used for each course. It's a one-time per course fee.

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>

## **APPENDIX C - 2023 PROGRAM SCHEDULES**

(Contact the school at (202) 822-0011 for a copy of the current program schedule or visit our website at [www.VetsGroup.org](http://www.VetsGroup.org))