



Year: 2025

CURRICULUM CATALOGUE

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OUR MISSION STATEMENT

We endeavor to break down barriers and offer accessible learning pathways for U.S. Armed Forces veterans, active members, reservists and their families to retrain for careers in the U.S. tech industry. Our comprehensive program's aim is to equip them with the necessary skills and instill confidence in their abilities to excel in the dynamic realms of software development and cybersecurity.

OUR PURPOSE STATEMENT

As we delve deeper into the digital age, the demand for proficient tech professionals surges, presenting a pressing strategic challenge for the United States. However, due to their protracted timelines, traditional academic educational institutions have failed to address this demand. Recognizing this gap, we have embarked on a mission to bridge it by offering accelerated learning opportunities tailored to the unique needs of military veterans and their families. The Coding for Veterans program is a micro-credentialed curriculum that encompasses globally recognized industry certifications and is delivered 100% online through the University of Southern California's Marshall School of Business.

The tech industry in the U.S. reflects a stark reality. Many vacant positions exist in crucial areas such as I.T. support, network engineering, and software development. Despite comprising approximately 52% of the technical workforce in America, I.T. companies need help meeting the ever-growing demand for talent. Meanwhile, various sectors, including government entities and private companies/organizations that account for the remaining 48%, each have challenges in sourcing skilled tech professionals.

Enter the Coding for Veterans program—a pioneering collaborative effort between Coding for Veterans and USC Marshall School of Business, tech industry stakeholders such as Accenture, AWS, Cisco, Google, IBM, Microsoft, and military veterans. This unique partnership combines academic rigor with practical industry insights, ensuring participants receive a well-rounded education that aligns with tech industry talent requirements.

Moreover, our program extends beyond mere education. We have established a supportive community where veterans and their families can thrive. By leveraging our network of partners, we provide invaluable mentorship opportunities, career guidance, and access to a wealth of resources designed to facilitate veterans' seamless transition into the tech workforce.

At the heart of our endeavor lies a commitment to excellence. Our cybersecurity curriculum has been crafted following globally recognized cybersecurity standards established by NIST and ISO, thus setting the benchmark for quality education in the field. We take immense pride in our role as champions of American veterans and their families, and we are honored to have the unwavering support of our esteemed partners who share in our vision for a brighter future.

HARASSMENT AND DISCRIMINATION POLICY

At the University of Southern California's Marshall School of Business and within the Coding for Veterans program, we uphold an unwavering commitment to fostering open, inclusive, and harassment-free learning environments. Central to this commitment is our steadfast belief in individuals' fundamental rights to be free from all forms of harassment and discrimination.

Our dedication to creating a safe and welcoming space extends to every community member. Whether you are a student, faculty member, or staff member, you have the right to work and learn in an environment free from harassment and discrimination based on prohibited grounds such as gender, race, ethnicity, religion, creed, disability, or sexual orientation.

We adhere strictly to USC's Policy: Prohibited Discrimination, Harassment, and Retaliation (<https://eeotix.usc.edu/notice-of-non-discrimination/>), which underscores our collective responsibility to uphold these principles and actively prevent instances of harassment and discrimination from occurring within our community.

In alignment with these values, we expect all students to treat one another with respect and to engage with USC Marshall and Coding for Veterans staff members in a manner that reflects this respect. We understand that challenges and frustrations may arise during your program, and we encourage open dialogue to address concerns. However, we emphasize the importance of expressing these concerns respectfully and constructively as for many students in the program, this is their 1st time learning in an online environment.

HEALTH AND MENTAL HEALTH

We recognize that health issues, including mental health concerns, can impact an individual's ability to engage in their studies entirely. We believe in fostering a supportive and compassionate environment where individuals feel comfortable seeking assistance when faced with health challenges.

If you are experiencing a health issue affecting your studies, we encourage you to contact us. We are committed to accommodating your needs to the best of our ability, whether through flexible scheduling, alternative assignments, or other appropriate accommodations. We aim to ensure that you have the necessary support to navigate any health-related challenges while continuing to pursue your educational goals.

Our commitment to accommodating health-related needs also prioritizes mental health and wellness within our community. We understand the importance of prioritizing mental well-being and offering resources to support individuals who may be struggling. If you or someone you know requires mental health support, please consider reaching out to the following resources:

- **Mental Health Wellness:** For confidential support from trained professionals, call 1-866-585-0445, 1-888-628-9454 for Spanish or text WELLNESS at 741741. These services are available to adults seeking assistance with various mental health concerns.
- **Suicide Crisis:** If you or someone you know is experiencing a mental health crisis or is at risk of suicide, please dial 9-8-8 for immediate assistance. This service provides access to trained crisis intervention specialists who can offer support and guidance during times of crisis.

In addition, we have forged a meaningful partnership with **Wounded Warriors**, an organization known for its expertise in providing military-focused counselling services for veterans and their families. This collaboration underscores our commitment to prioritizing mental health and well-being within our program ensuring that participants have access to comprehensive support throughout their educational journey. Through this partnership, we aim to cultivate a nurturing environment that empowers individuals to effectively address and overcome mental health challenges.

We are committed to promoting a culture of care and support for all members of our community. Your well-being is important to us, and we are here to assist you in accessing the resources and support you need to thrive academically and personally.

OUR PROJECT PARTNERS

Coding for Veterans is an initiative designed to address the pressing demand for talent within the technology industry. In partnership with USC Marshall's School of Executive Education and guided by industry leaders, we have meticulously constructed a comprehensive curriculum tailored to veterans seeking to transition into software development and cybersecurity careers.

We go beyond imparting technical expertise; we also focus on refining crucial soft skills essential for thriving in the competitive I.T. landscape. Our goal is to be a bridge between military service and civilian employment, equipping learners with the tools to navigate the intricacies of the tech workforce. Our commitment to fostering soft skill development encompasses cultivating a personal brand and professional profile, ensuring that our graduates possess the versatility and readiness to meet the demands of their chosen career paths.

Recognizing the importance of remote learning in today's digital landscape, we leverage cutting-edge collaborative technologies to deliver comprehensive support to our participants. This approach prepares students for remote work scenarios and equips them with the necessary skills for onsite employment in the rapidly evolving tech industry.

Our program owes much of its success to industry sector leaders' generous contributions and support. Organizations such as Cisco have provided invaluable resources integral to our cybersecurity curriculum. At the same time, industry giants such as Google, Amazon, Microsoft, and IBM have contributed essential content to enrich the learning experience. Additionally, program resource materials sourced from publishers such as O'Reilly, Range Force, and various certification bodies ensure that our participants can access the latest tools and knowledge essential for their professional growth and development.

WHY IS THE CODING FOR VETERANS PROGRAMS UNIQUE

We understand the unique qualities of military veterans and their families, recognizing your close-knit community characterized by motivation, discipline, resilience, adaptability, and teamwork. Our learning pathways are tailored explicitly for active service members, veterans, spouses, and family members within the U.S. Armed Forces. We help you go from Deployment to Employment.

Graduating from our program is achievable in less than 12 months. We offer a comprehensive approach to professional skill development that has been meticulously crafted in collaboration with industry experts to facilitate a seamless transition to employment opportunities upon graduation.

Upon completion of the program, each graduate receives a prestigious University of Southern California – Marshall School of Business, alongside being prepared to write industry-recognized I.T. certifications. These certifications include the ISC2 Certified Secure Software Lifecycle Professional (CSSLP), the CISCO Certified Network Associate (CCNA), *or the ISC2 Certified Information Systems Security Professional (CISSP) at the conclusion of your studies.* In addition, there are the following certifications that the preparatory coursework in our program leads towards including, the CompTIA A+, CompTIA Security+, Cisco CyberOPS Associate, CySA+ the IEEE Associate Software Development designation as well as the IEEE Professional Software Development designation.

Before admission into the program, Coding for Veterans thoroughly reviews prospective students, ensuring a personalized approach to support an individual's success in the program.

Our courses are demanding and require an unwavering commitment from our students. The program is self-paced, and you will be learning alongside others from the military eco-system. Since the program is delivered 100% online, you can study wherever there is an internet connection.

All course materials are conveniently accessible online and organized sequentially from the start of the program, allowing for a streamlined learning experience for students.

We prioritize personalized instructor and mentor support throughout the program, offering online assistance tailored to individual needs. Additionally, our online collaboration platform provides a dynamic environment for students to engage with peers, seek academic advice, and connect with alumni who generously offer guidance and support.

At C4V, our ultimate measure of success lies in your achievement and meaningful professional employment. We are dedicated to supporting you every step of the way, ensuring that your journey with us culminates in tangible success and fulfillment in your chosen career path.

REGISTRATION

Prior to enrollment, candidates undergo a thorough screening process, which includes evaluating their professional backgrounds, participating in an interview with our executive staff, and completing a soft skills

intake assessment. This process helps ensure an individual's suitability for the program and determines the most appropriate pathway. Upon meeting the necessary enrollment criteria, coding for Veterans forwards an individual's student profile to USC Marshall for processing and official acceptance into the program.

Upon successful enrollment, candidates are granted access to their resources and our course platform. Further, they are extended an invitation to attend a **mandatory** orientation session to kick-start their studies. During this orientation, candidates will receive detailed guidance on how to effectively utilize and access all learning materials, ensuring they are fully equipped to begin the program with confidence and clarity. This walkthrough during orientation aims to facilitate a smooth transition into their studies and optimize the student's learning experience.

Financial Information Tuition Payment

Payment of Tuition

All course fees are payable directly to the University of Southern California, and the student is responsible for ensuring that their tuition has been paid before the start of classes or has been given an extension by the University of Southern California Administrator. Funding to cover tuition costs can be provided through a number of sources including government, company bursaries or the individual themselves. The cost of tuition is \$23,750.00 inclusive of all books, administration and lab subscriptions.

Program Withdrawal Notice

- To qualify for a full refund as per the USC Marshall policy, students must request a withdrawal from the program at least ten days before the program module's start date.
- If a cancellation is requested less than ten working days before the program begins, the student will be charged the total amount of the registered program, and no refunds will be issued.
- Refunds are not permitted once the program has commenced.
- If the student cancels ten working days before the program module's start date, any fees paid by the student or on their behalf by a third party will be refunded within 30 days of processing the cancellation.
- If you wish to withdraw from the program at any point during its duration, please get in touch with helpdesk@codingforveterans.com or christina@codingforveterans.com.

DEADLINE

- For most students, they are allotted a maximum of 24 months to complete their program, with exceptions granted for extenuating circumstances. For further details or inquiries regarding program completion timelines, please contact the Helpdesk. Depending on your funding source, it will dictate details related to program completion.
- Participants have the flexibility to pause their learning journey within the 24-month timeframe. Pausing the program will temporarily suspend all book and lab subscription payments. It's important to note that the paused duration still counts towards the overall 24-month limit. To initiate a pause or resume your program, kindly contact the Helpdesk or our Student Success Coordinator, Christina, at christina@codingforveterans.com for assistance.

Note: If your program is funded through Veterans Affairs and you fail to complete it within a reasonable amount of time, Veterans Affairs may request a repayment of funding. Please get in touch with your VA advisor for clarification. Coding for Veterans is not in a position to address financial-related issues. All funding related to tuition is between Veterans Affairs and the Armed Forces Veteran.

FULL-TIME OR PART-TIME STUDIES

- A full-time student is defined as a student who can dedicate a minimum of 18 hours (As per the VA Guidelines) or more per week to their studies, ensuring a focused and intensive learning experience.
- A part-time student is characterized by a commitment of less than 18 hours per week, allowing for a more flexible and gradual approach to learning.
- It's crucial for students to communicate any changes in their student status, such as transitioning from full-time to part-time or vice versa, to the Student Success Coordinator or via email to **helpdesk@codingforveterans.com**. This ensures that appropriate adjustments can be made to effectively support the student's learning journey.
- Full-time students are expected to progress more quickly through the program, typically completing it within approximately 12 months. On the other hand, part-time students follow a more extended timeline, aiming to complete their program in approximately 16-18 months. These timelines are general guidelines to help students gauge their progress and plan their studies accordingly.
- Upon program admission, students must submit a preliminary study schedule outlining the anticipated time to dedicate to their coursework each week. This schedule serves as a guideline to gauge the student's commitment and time management skills, aiding in planning and support throughout their learning journey.

INSTRUCTION PROCESS

Central to the heart of the Coding for Veterans program is our unwavering dedication to ensuring every student thrives. Our team of instructors, mentors, and active course community members are here to guide you every step of the way. Embracing a flexible and self-paced approach, our program offers an array of resources, from engaging video lectures to interactive skill assessment labs, that will suit every learning style.

Instructors in the program are readily accessible to students through multiple channels, including Slack, email, and scheduled appointments via video or voice calls. Upon onboarding, students will receive detailed information regarding each instructor's established office hours, ensuring clear communication channels and personalized support. This accessibility fosters a learning environment where students can seek guidance, clarification, and mentorship whenever needed, enhancing their overall experience and success in the program.

TRAINING

The University of Southern California Marshall School of Business

The University of Southern California (USC) is one of the most renowned and recognizable universities worldwide. Situated in one of the largest metropolises in the world, USC's advancements in delivering courses, particularly in an online setting, make it a distinctive partner for your learning, growth, and success. With diversified programming, USC has forged strategic partnerships with government and private industry, providing event-based learning and conferences and establishing co-designed programs with key government and industry sectors, including *Coding for Veterans*.

Technical Skill Development

The Coding for Veterans program offers an immersive learning experience designed to equip participants with comprehensive coding skills. With a total duration of 650 learning hours per program stream. The structure of our program operates without semester breaks, ensuring continuous engagement and progress.

Full-time students must commit to a rigorous schedule of approximately 15-20 hours per week. This intensive structure allows for deep immersion in the coursework and facilitates steady advancement through the program. Moreover, as soon as a student completes one course, the next course opens up thereby enabling a smooth transition and ensuring a dynamic learning environment.

While the schedule for part-time students is flexible to accommodate various commitments, we still encourage a consistent dedication to learning at a minimum of 10 hours per week. Part-time students are expected to engage with the coursework regularly, allocating sufficient time each week to make meaningful progress. Although the pace may be adjusted to suit individual needs, a sustained effort is essential to fully benefit from the program's curriculum and achieve academic proficiency.

Certifications for Graduates

Upon completing the program, each graduate will be awarded a certificate from the University of Southern California's Professional Development Institute, acknowledging their dedication and expertise. Moreover, the program incorporates the achievement of relevant Industry Professional Certifications, enhancing graduates' credentials and employability.

In the Secured Software Development program, students undertake the **ISC2 Certified Secure Software Lifecycle Professional (CISSLP)** exam, validating their proficiency in secure software practices. Similarly, students in the Network Security Associate program write the **Cisco Certified Network Analyst (CCNA)** exam, demonstrating their competence in network analysis and administration. Meanwhile, participants in the Cyber Architect program tackle the **ISC2 Certified Information Systems Security Professional (CISSP)** exam, showcasing their mastery of cybersecurity architecture.

Soft-Skills Enhancements

Students entering the Coding for Veterans programs typically have several years of military work experience. Returning to civilian life can be challenging and intimidating when preparing a CV or facing a job interview. Soft skill instruction and coaching is included in this program through partner organizations, focusing upon:

- Building your personal, professional brand
- Understanding organizational culture in the tech workplace
- Individual strengths and approach models

- Resume preparation and customizing application correspondence
- Portfolio development and presentation
- Interview skills and video preparation feedback

Student Support

All our courses are conveniently delivered online and asynchronously, ensuring accessibility to eligible students worldwide. With this flexibility, students can progress at their own pace, supported by dedicated course administrators and instructors who monitor their advancement and provide assistance as required. This approach empowers learners to tailor their educational journey to their needs and circumstances while still receiving the guidance and support necessary for success.

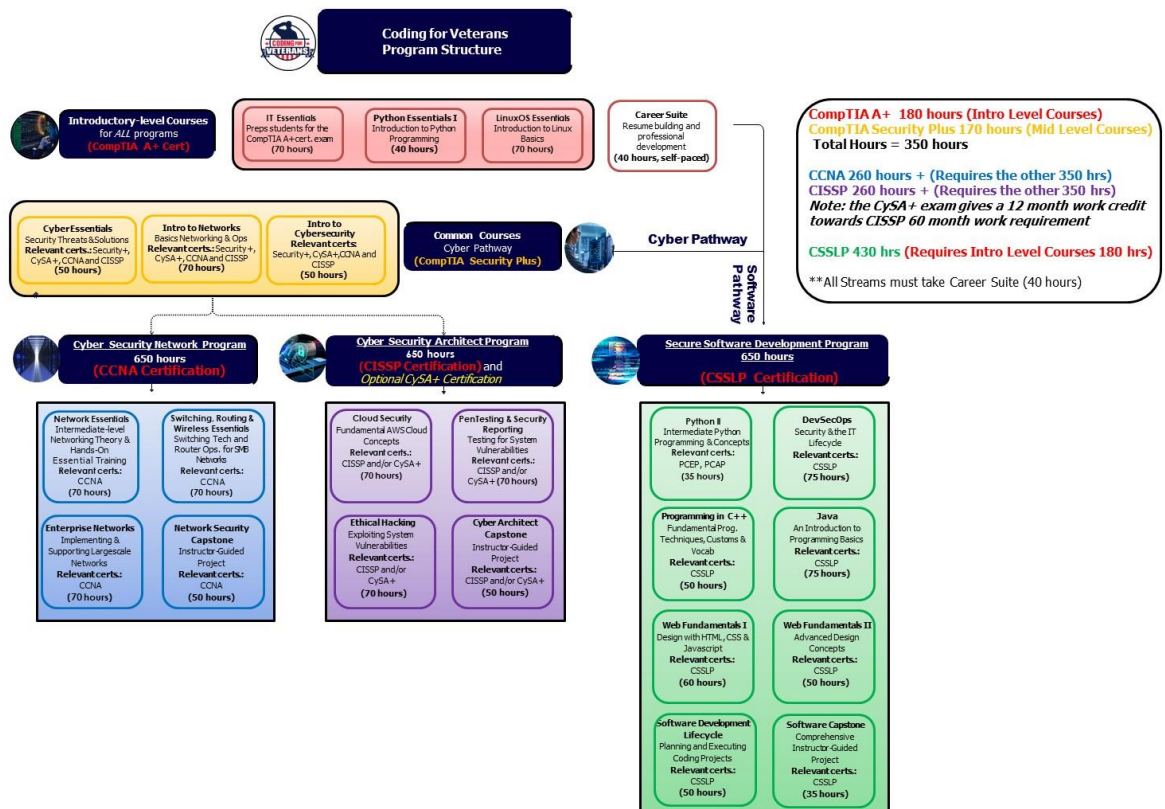
Coding for Veterans offers a comprehensive support system to empower students in their academic, professional, and personal growth. Our mentorship programs, both internal and external, provide tailored guidance for academic success, job preparation, career advancement, and professional development. Teaming up with organizations like Wounded Warriors, we also ensure access to counselling services and resources focused on personal wellness. Additionally, our vibrant online community fosters connections among students and alumni, offering a platform for networking, support, and collaboration. Through these initiatives, we aim to create an inclusive and supportive environment where students can thrive academically and personally, regardless of their location.

Books and Practice Labs

Our program provides essential resources that best support your skill development, such as required books, video lectures, and technical practice labs curated through subscriptions with industry recommended providers. Links to digital books and materials are conveniently accessed directly through your courses. Throughout your term in the program, you will enjoy unlimited online access to the O'Reilly Media library, boasting over 50,000 titles and labs on Range Force, providing access to over 500 sandbox labs. These resources are included in tuition.

Program Completion

The Coding for Veterans program is structured such that each cohort undertakes a series of appropriately sequenced courses for skill development. The expectation is that students complete their studies in a timely manner. The intensive, career-readiness C4V/USC programs are labelled as 650-hours. Students will have reading and assignments to complete outside core curriculum hours. Typically, students would set aside 1 hour of lab/practical hands-on supplemental module learning for every 4 hours of course study. Time is allocated within the curriculum to prepare for the industry certification exam relevant to each program. Scheduling of exams may be outside the core program timeframe. For veterans, this self-paced program may be extended to completion over 24 months if circumstances support the timeline.



PROGRAM DESCRIPTIONS

Secure Software Development Program

The Secure Software Development program equips students with a deep understanding and proficiency in four critical programming languages: Python, Java, C++, and HTML, all with a security-first emphasis. Additionally, students delve into the Linux operating system while receiving comprehensive DevSecOps and Software Development Lifecycle (SDLC) coursework. Completing this program prepares candidates for the ISC2 certification exam for Certified Secure Software Lifecycle Professional (CSSLP), leading to career paths such as Secure Software Developer, DevSecOps Engineer, and Security Analyst.

Cyber Security Network Program

The Cyber Security Network program guides candidates through essential knowledge and hands-on practice to demonstrate the skills required for professional-level career roles in network security. Students gain comprehensive knowledge and build skills to achieve professional competence in this area of study. After completing this program, candidates are prepared to write the Cisco CCNA (Cisco Certified Network Associate) exam, leading to career paths such as Network Security Specialist, Cybersecurity Analyst, and Network Engineer. **Note:** Students are also prepared to write the CompTia A+ and CompTia Security Plus exams, however writing the CCNA certification is recommended as your preferred certification exam.

Cyber Security Architect Program

The Cyber Security Architect program provides students with the knowledge and practice needed to demonstrate the skills for professional-level career roles in Cybersecurity operations. Students gain the

knowledge and build the skills for early career capability in Cybersecurity operations. By completing this program, candidates are prepared to write the industry certification exam for the CISSP through ISC2, leading to career paths such as Cybersecurity Analyst, Security Consultant, and Security Architect. **Note:** Students are also prepared to write the CompTiA A+, CompTiA Security Plus and the CySA+ certification exams, however writing the CISSP certification is recommended as your preferred certification exam.

SECURED SOFTWARE DEVELOPMENT PROGRAM DETAILS (650 HOURS)

The Secured Software Development program certificate program equips learners with proficiency in widely used programming languages and operating systems essential for software development and digital transformation careers. Upon completion, graduates are well-prepared to embark on successful software development careers, armed with the necessary skills and knowledge to excel.

Secure Software Development Courses	Hours
IT Essentials	70
Linux O.S. Essentials	70
Python Essentials I	40
Career Suite	40
Python Essentials II	35
Programming in C++	50
Web Fundamentals I	60
Web Fundamentals II	50
Java Programming	75
DevSecOps	75
Software Development Life Cycle	50
Software Capstone	35
Hours	650

I.T. Essentials (70 Hours): Acquire foundational computer skills and prepare for entry-level I.T. roles through hands-on labs and simulations. Learn to identify and mitigate common security threats while gaining practical experience in enterprise networking.

Linux O.S. Essentials (70 Hours): Delve into the intricacies of Linux, the cornerstone of open-source collaboration and a ubiquitous operating system renowned for its reliability. This course equips you with essential Linux skills, paving the way towards the LPI Linux Essentials Professional Development Certificate.

Python Essentials I (40 Hours): Master the fundamentals of Python programming, covering syntax, semantics, and general computer programming concepts. Gain proficiency in object-oriented programming and essential coding techniques.

Career Suite (40 Hours): This program parallels technical courses and introduces theories and concepts crucial for success in civilian workplaces. It explores practical strategies for addressing workplace challenges, with a focus on individual success in I.T. or cybersecurity roles.

Python Essentials II (35 Hours): This intermediate level python course is designed for individuals who already have a foundation in Python programming and are looking to expand their knowledge and skills. It builds upon the curriculum in the Python Essentials I course. With this course, learners will gain a deeper understanding of the language and be able to tackle more complex programming challenges.

Programming in C++ (50 Hours): Begin with the fundamental building blocks of the C++ language, gradually progressing to advanced concepts without initially relying on object-oriented programming principles. This comprehensive course equips students with the skills necessary for junior and specialist roles in I.T. and software development, featuring hands-on labs, quizzes, and assessments to reinforce learning.

Web Fundamentals I (60 Hours): Delve into the essentials of HTML, mastering basic webpage creation techniques before advancing to more intricate topics such as cascading style sheets and JavaScript integration. Through practical exercises, students develop a strong foundation in client-side web development, preparing them for diverse roles in the digital landscape.

Web Fundamentals II (50 Hours): Explore the components of the LAMP stack (Linux, Apache, MySQL, PHP) in-depth, learning to harness its power for dynamic website creation. By developing proficiency in PHP scripting and MySQL database interaction on Apache servers, students gain valuable expertise in server-side web development, which is essential for building robust, scalable web applications.

Java Programming (75 Hours): Unlock the potential of Java programming through an extensive course covering foundational concepts to advanced topics. From object-oriented programming principles to graphical user interface development, students comprehensively understand Java's capabilities. By exploring inheritance, layout management, and event handling, students develop the skills necessary to build robust Java applications.

DevSecOps (75 Hours): Dive deep into the world of DevSecOps, where security meets development in a seamless integration process. By exploring APIs, containerization, and automation techniques, students learn to embed security practices into every development lifecycle stage. With an emphasis on continuous integration and security testing, students emerge equipped to build resilient and secure software systems.

Software Life Cycle (50 Hours): Gain insight into the intricacies of software development and project management, from terminology and life cycle methodologies to core processes. Through hands-on practice with project management tools and techniques, students develop a solid understanding of PMBOK principles, preparing them for successful project management roles in the digital realm.

Software Capstone (35 Hours): Undertake a comprehensive project assignment that applies DevSecOps principles to a real-world scenario or hypothetical case study. Students deepen their understanding and practical application of DevSecOps concepts by conducting interviews, research, and developing resources. This culminating experience equips students with the skills and knowledge necessary to implement DevSecOps practices effectively in their current or future roles.

Sequence of Courses

1. I.T. Essentials
2. Python Essentials I
3. Linux Essentials
4. Python Essentials II
5. DevSec Ops
6. Programming in C++
7. Java
8. Web Fundamentals I
9. Web Fundamentals II
10. Software Development Lifecycle
11. Software Capstone

Cybersecurity Network Program Details (650 Hours)

The **Cyber Security Network Certificate** equips you with a career in I.T. by confirming your proficiency and expertise in essential areas such as network fundamentals, network access, I.P. connectivity, I.P. services, security fundamentals, and automation and programmability.

Cyber Security Network Courses	Hours
I.T. Essentials	70
Python Essentials I	40
Linux O.S. Essentials	70
Career Suite	40
Intro to Cybersecurity	50
Intro to Networks	70
Cyber Essentials	50
Network Essentials	70
Switching, Routing & Wireless Essentials	70
Enterprise Networks	70
Network Security Capstone/CCNA Exam Prep	50
Hours	650

I.T. Essentials (70 Hours): Acquire foundational computer skills and prepare for entry-level I.T. roles through hands-on labs and simulations. Learn to identify and mitigate common security threats while gaining practical experience in enterprise networking.

Python Essentials I (40 Hours): Master the fundamentals of Python programming, covering syntax, semantics, and general computer programming concepts. Gain proficiency in object-oriented programming and essential coding techniques.

Linux O.S. Essentials (70 Hours): Delve into the intricacies of Linux, the cornerstone of open-source collaboration and a ubiquitous operating system renowned for its reliability. This course equips you with essential Linux skills, paving the way towards the LPI Linux Essentials Professional Development Certificate.

Career Suite (40 Hours): This program parallels technical courses and introduces theories and concepts crucial for success in civilian workplaces. It explores practical strategies for addressing workplace challenges, with a focus on individual success in I.T. or cybersecurity roles.

Intro to Cybersecurity (50 Hours): This course introduces you to the dynamic world of Cybersecurity by exploring trends, treats, and personal privacy protection strategies. Whether you're pursuing a career in cybersecurity or safeguarding your online presence, it offers invaluable insights.

Intro to Networks (70 Hours): This course introduces the architectures, models, protocols, and networking elements that connect users, devices, applications, and data through the Internet and across modern computer networks - including I.P. addressing and Ethernet fundamentals. By the end of the course, students can build simple local area networks (LAN) that integrate I.P. addressing schemes and foundational network security and perform basic configurations for routers and switches.

Cyber Essentials (50 Hours): This course provides fundamental knowledge in common security concepts, basic security techniques, and the core aspects of applications, operating systems, and networking relevant to a Security Operations Center (SOC). Through hands-on training with popular security tools, you'll develop skills in threat detection within real-world network environments. With expert guidance and practical experience using enterprise-grade security tools, you'll gain insights into network and security fundamentals, endpoint attacks, cryptography, analysis, and monitoring, making it an ideal starting point for those aspiring to enter Cybersecurity.

Networking Essentials (70 Hours): This course helps students develop understanding and hands-on ability in network design and defense. It instills a foundational understanding of data transfer, network technologies, and software operations, enabling students to comprehend network operations, automation, and analytical processes. Through comprehensive instruction, students learn to safeguard against, detect, and respond to network attacks, covering essential topics such as network defence principles, security control applications, protocol usage, perimeter appliance management, secure IDS, VPN, and firewall configuration. Additionally, the course delves into network traffic analysis, signature identification, and vulnerability scanning, essential skills for crafting robust network security policies and executing successful incident response strategies.

Switching, Routing, and Wireless Essentials (70 Hours): This course offers comprehensive insights into the structure, components, and functions of routers and switches within small networks. Students acquire practical skills in configuring routers and switches to ensure basic operations. Upon completion, students will proficiently configure and troubleshoot routers, utilizing various technologies such as static routing, RIP versions two and next generation, virtual LANs, Dot1q trunking, inter-VLAN routing, NAT, DHCP, port security, standard access control lists, and device discovery protocols. Additionally, students engage with IPv4 and IPv6 addressing and subnetting, requiring access to a Windows-based multimedia computer.

Enterprise Networks (70 Hours): This course delves into the architectural aspects and strategic considerations essential for designing, securing, operating, and resolving issues in enterprise networks. This encompasses vast area network (WAN) technologies, quality of service (QoS) mechanisms, and secure remote access protocols. Emphasizing contemporary concepts like software-defined networking, virtualization, and automation, students acquire competencies in configuring and troubleshooting enterprise networks while developing insights into cybersecurity threats and countermeasures. Additionally, students explore network management tools and essential principles of software-defined networking, including controller-based architectures and the role of application programming interfaces (APIs) in facilitating network automation.

Network Security Capstone/CCNA Exam Prep (50 Hours): The Capstone program offers a structured test preparation regimen utilizing established series elements and methods. Each chapter begins with *Do I Know This Already?* Quizzes allow you to gauge your familiarity with the content and allocate time accordingly. Clear exam topic lists facilitate easy reference, while *Exam Preparation Tasks* at the end of each chapter provide focused practice on essential concepts for thorough understanding.

Sequence of Courses

1. I.T. Essentials
2. Python Essentials I
3. Linux Essentials
4. Intro to Cybersecurity
5. Intro to Networks
6. Cyber Essentials

- 7. Networking Essentials**
- 8. Switching, Routing, Wireless Essentials**
- 9. Enterprise Networks**
- 10. Network Security Capstone/CCNA Certification Exam Prep**

CYBER SECURITY ARCHITECT PROGRAM DETAILS (650 HOURS)

The **Cyber Security Architect Certificate** delves into advanced techniques for threat detection, incident investigation, and rapid response protocols. Through practical exercises and real-world simulations, you'll develop the confidence and competence to navigate complex cyber landscapes and safeguard your organization's digital assets effectively.

Cyber Security - Architect Courses	Hours
I.T. Essentials	70
Python Essentials I	40
Linux O.S. Essentials	70
Career Suite	40
Intro to Cyber	50
Intro to Networks	70
Cyber Essentials	50
Cloud Security	70
Pen Testing & Sec Reporting	70
Ethical Hacking	70
CISSP Capstone	50
Hours	650

I.T. Essentials (70 Hours): Acquire foundational computer skills and prepare for entry-level I.T. roles through hands-on labs and simulations. Learn to identify and mitigate common security threats while gaining practical experience in enterprise networking.

Python Essentials I (40 Hours): Master the fundamentals of Python programming, covering syntax, semantics, and general computer programming concepts. Gain proficiency in object-oriented programming and essential coding techniques.

Linux O.S. Essentials (70 Hours): Delve into the intricacies of Linux, the cornerstone of open-source collaboration and a ubiquitous operating system renowned for its reliability. This course equips you with essential Linux skills, paving the way towards the LPI Linux Essentials Professional Development Certificate.

Career Suite (40 Hours): This program parallels technical courses and introduces theories and concepts crucial for success in civilian workplaces. It explores practical strategies for addressing workplace challenges, with a focus on individual success in I.T. or cybersecurity roles.

Intro to Cybersecurity (60 Hours): This course introduces you to the dynamic world of Cybersecurity by exploring trends, threats, and personal privacy protection strategies. Whether you're pursuing a career in Cybersecurity or safeguarding your online presence, it offers invaluable insights.

Intro to Networks (70 Hours): This course introduces the architectures, models, protocols, and networking elements that connect users, devices, applications, and data through the Internet and across modern computer networks - including I.P. addressing and Ethernet fundamentals. By the end of the course, students can build simple local area networks (LAN) that integrate I.P. addressing schemes and foundational network security and perform basic configurations for routers and switches.

Cyber Essentials (50 Hours): Develop a solid understanding of security principles and technologies for cybersecurity operations. Gain practical experience in threat detection and network security within a simulated SOC environment.

Cloud Security (70 Hours): Explore fundamental cloud security concepts, including access control, data encryption, and network security. Gain insight into security responsibilities in cloud environments and learn to leverage security-oriented services.

Penetration Testing and Security Reporting (70 Hours): Master the scoping, engagement, and reporting processes essential for comprehensive penetration testing. Gain practical experience through hands-on labs and learn to draft valuable penetration reports.

Ethical Hacking (70 Hours): Adopt a hacker mindset to understand offensive and defensive cybersecurity strategies. Learn systematic ethical hacking techniques and gain hands-on experience scanning, testing, and securing target systems.

CISSP Capstone (50 Hours): Conclude your journey with a comprehensive review of information security concepts and industry best practices aligned with the CISSP CBK. Prepare for the CISSP exam and enhance your ability to effectively implement and manage security programs. This program includes the cost of your first attempt at the ISC² CISSP exam in its tuition. CISSP certification validates student expertise in adequately protecting organizations from cyber threats. It equips them with a globally recognized credential, opening doors to diverse career opportunities in information security.

Sequence of Courses

1. I.T. Essentials
2. Python Essentials I
3. Linux Essentials
4. Intro to Cyber
5. Intro to Networks
6. Cyber Essentials
7. Cloud Security
8. Pentesting & Security Reporting
9. Ethical Hacking
10. Cyber Architect Capstone

COMPUTER REQUIREMENTS

Certain specifications are recommended to ensure optimal performance with your learning experience. These guidelines outline the features that can enhance your learning experience and prepare you for the program's demands. Aiming for these specifications can provide the best foundation for your studies and future work placements.

1. **Processor:** Opt for the latest i7 core from Intel or R5 from AMD, with a clock speed of at least 2.5GHz. A quad-core processor offers versatility.
2. **Cache:** Aim for at least 4 M.B. to support I.T. security activities.
3. **RAM:** To facilitate multitasking, choose a minimum of 16 G.B. or 32 G.B. if using a graphics card.
4. **Storage:** Prioritize a Solid-State Drive (SSD) with ample storage space for multiple applications and temporary files.
5. **Graphics:** For tasks like password cracking and system security, select a laptop with a robust Graphics Processing Unit (GPU), such as NVIDIA.
6. **Networking:** Ensure compatibility with 802.11/b/n/ac networking, USB, HDMI, USB C ports, and Bluetooth connectivity.
7. **Cooling:** Look for an efficient cooling system for your computer to prevent overheating during heavy data processing.
8. **Display:** For clarity, opt for a high-definition LED display with a resolution of 1080 pixels, and consider a larger screen size for comfort during extended use.
9. **Battery:** Prioritize laptops with long-lasting batteries for flexibility and uninterrupted workflow.
10. **Operating System:** Choose a laptop with an advanced operating system for optimal performance. A Windows-based laptop is highly recommended for optimal compatibility with your learning management system and labs.

Additionally, keyboard customization, printer necessity, and ergonomic furniture for enhanced comfort during study sessions should be considered. While a printer may not be essential, it can be useful for printing reference material. Some students find it helpful to have multiple monitors to download their books/material on one monitor while they work on their assignments on the other. Lastly, SSD storage should be prioritized over mechanical hard drive. A 1TB drive is recommended.

TO NOTE: Simplicity and functionality are key. Any laptop capable of running browser-based exercises and downloading necessary software for assignments is perfectly suitable. We encourage students to prioritize their budget and avoid overspending. Remember, success in the program isn't dependent on having the most expensive equipment. Work within your means and focus on your learning journey.

Explore online reviews for laptop options that meet these criteria. You can start your search with resources like the link below: [Link to laptop options.](#)

CONCLUSION

The Coding for Veterans program offers qualifying Military Veterans, Reservists, Spouses and their family members an invaluable opportunity to acquire in-demand technical skills, positioning them for success in today's rapidly evolving innovation and tech-led economy. Our program is designed to provide an engaging educational experience, paving the way for graduates to secure fulfilling employment in professional fields with ample opportunities for long-term career growth and advancement.

USCMarshall
Executive Education

For More Information Call 1-800-317-0058

Email: musson@codingforveterans.com or
info@codingforveterans.com