Information Technology

Course Catalog

PhoenixTS

Contents

AI & EMERGING TECHNOLOGY

ARTIFICIAL INTELLIGENCE

Artificial Intelligence for Human Resources

This 1-day instructor-led course is designed to help HR professionals apply AI technologies to their workplace challenges while avoiding emerging risks associated with AI. After taking the course, students will know how to:

- Describe AI technologies applying to HR fields, such as predictive analytics
- Summarize the impact of AI on HR practices
- Apply AI to HR functions, including career management, workforce management, and talent acquisition
- Use AI for training and talent management
- Identify challenges associated with the use of AI in the workplace

There are no prerequisites for this course.

ChatGPT Prompt Engineering Primer

This 1-day instructor-led course will help students to understand the principles of large language models (LLMs) in generative AI and apply them to create better writing prompts for ChatGPT. They will learn the model's strengths and weaknesses along with practical ways it can help them in the workplace. The course will teach students how to:

- Identify the core functions and limitations of ChatGPT
- Interact with ChatGPT
- Tailor ChatGPT's responses
- Provide ChatGPT with external data
- Connect ChatGPT to other applications

There are no prerequisites for this course.

Introduction to AI and ML Training

This 1-day instructor-led course teaches you the fundamentals of these rapidly evolving fields, including their definitions, key components, differences, types, applications, and ethical implications. You will also learn how to analyze real-world use cases and applications of AI/ML. At the end of this course, participants will be able to:

- Define AI and ML and explain their key components and differences
- Identify and discuss the types and applications of AI/ML
- Summarize the basic concepts of machine learning
- Analyze real-world use cases and applications of AI/ML
- Evaluate the ethical implications of AI and develop strategies for building trust in your AI system

There are no prerequisites for this course.

Machine Learning

Machine Learning is a two-day instructor-led class that provides an introduction to machine learning concepts and algorithms. Participants will explore supervised and unsupervised learning techniques, model evaluation, and the application of machine learning to real-world problems.

- Gain a foundational understanding of machine learning concepts and algorithms.
- Learn about supervised and unsupervised learning techniques and their applications.
- Apply machine learning techniques to solve real-world problems effectively.

There are no prerequisites for this course.

AIBIZ (Artificial Intelligence for Business Professionals)

This 1-day instructor-led course is designed to give participants the essential knowledge to begin working with AI for business. It will also help students to prepare for the AIZ-210 exam. At the end of the course, participants will be able to:

- Identify core concepts of artificial intelligence, machine learning, and deep learning.
- Describe AI implementations for science, search engines, natural language processing, computer vision, and robotics.
- Explain the benefits, challenges, and business use cases of artificial intelligence technologies.

There are no prerequisites for this course.

GenAIBIZ (Generative AI for Business Professionals)

This 1-day instructor-led course is designed to demystify generative AI for business professionals, as well as to trace its power to actionable, real-world business goals. It will give you the essential knowledge of generative AI you'll need to elevate the organization in these exciting times. At the completion of this course, participants will be able to:

- Describe the fundamentals of AI and generative AI.
- Generate text using AI.
- Generate code using AI.
- Generate images and video using AI.
- Generate audio using AI.
- Identify the challenges of generative AI.
- Implement organizational strategies for generative AI.

There are no prerequisites for this course.

CAIP (Certified Artificial Intelligence Practitioner™)

This 5-day, instructor-led Certified Artificial Intelligence Practitioner™ (CAIP) course brought to you by CertNexus shows you how to apply various approaches and algorithms to solve business problems through AI and ML, all while following a methodical workflow for developing data-driven solutions. At the completion of this course, participants will be able to:

- Solve a given business problem using AI and ML
- Prepare data for use in machine learning
- Train, evaluate, and tune a machine learning model
- Build linear regression models
- Build forecasting models
- Build classification models using logistic regression and k -nearest neighbor
- Build clustering models
- Build classification and regression models using decision trees and random forests
- Build classification and regression models using support-vector machines (SVMs)
- Build artificial neural networks for deep learning
- Put machine learning models into operation using automated processes
- Maintain machine learning pipelines and models while they are in production

There are no prerequisites for this course.

AI-900: Microsoft Azure AI Fundamentals

This 1-day, instructor-led course teaches IT professionals how to use Microsoft Azure and artificial intelligence to develop AI solutions. Students will gain a better understanding of artificial intelligence through hands-on experience. This course will teach students to:

- Define artificial intelligence
- Understand how machine learning works with Azure

- Identify features of different workloads on Azure

There are no perquisites for this course

AI-100T01: Designing and Implementing an Azure AI Solution

This 3-day, instructor-led course teaches IT professionals how to design Azure AI solutions. Students will learn about artificial intelligence and perform different AI Functions. This course will teach students to:

- Understand Azure Cognitive Services
- Perform services such as designing bots and LUIS (Language Understanding Functionality)
- Implement Azure Cognitive Services

Prerequisites include completion of AZ- 900T01 - Microsoft Azure Fundamentals and having a working knowledge of C# language and Azure storage systems.

Deep Learning on AWS

In this 1-day instructor-led course, students will learn about Deep learning solutions for the AWS platforms. Students will learn how to use AWS services to perform various operations with their Deep Learning models as well as design systems on AWS. This course will teach students to:

- Understand the concept of Deep Learning
- Understand the concept of Machine Learning
- Implement different programming frameworks into Deep Learning workloads
- Configure AWS solutions for Deep Learning deployments

There are no prerequisites for this course.

The Machine Learning Pipeline on AWS

In this 4-day instructor-led course, students will gain knowledge about each stage of the Machine Learning pipeline to solve different business problems and create projects using Amazon SageMaker. The course will teach students how to:

- Select an appropriate ML approach to solve a given problem
- Implement an ML model into Amazon SageMaker
- Apply machine ML to real-life business problems
- Describe best practices for designing scalable, secure, and cost-effective ML pipelines

Prerequisites: This course assumes a basic understanding of AWS cloud infrastructure, the Python programming language, and the Jupyter Notebook environment.

INTERNET OF THINGS

IoTBIZ (IoT for Business Professionals)

This 1-day instructor-led course will teach students the business and technical implications of incorporating Internet of Things (IoT) technologies into the workplace. Students taking this course should be business leads in project management, marketing, and sales; they will learn the components of IoT infrastructure, the business benefits of using them, and the technical challenges they are likely to encounter. This course will also prepare students for the IOZ-110 exam. At the end of the course, participants will know how to:

- Define IoT components and business strategies
- Describe IoT devices and support systems
- Identify business, security, and organizational benefits and challenges associated with IoT
- Describe real-world applications for IoT solutions
- Recognize best practices for IoT implementation

There are no prerequisites for this course.

CIOTP (Certified Internet of Things Practitioner)

In this 3-day instructor-led course, In this course, students will learn general strategies for planning, designing, developing, implementing, and maintaining an IoT system through various case studies and by assembling and configuring an IoT device to work in a sensor network. This course will also prepare students for the ITP-110 exam. After taking this course, participants will know how to:

- Construct and program an IoT device.
- Communicate with an IoT device using wired and wireless connections.
- Process sensor input and control an actuator on an IoT device.
- Manage security, privacy, and safety risks on IoT projects.
- Plan an IoT prototyping and development project.

There are no prerequisites for this course.

DATA ETHICS

DEBIZ (Data Ethics for Business Professionals)

In this 1-day instructor-led course, students will learn to apply ethical principles when using artificial intelligence, machine learning, and other data science technologies. They will learn to recognize how to avoid discrimination, marginalization, and societal harm and even to use such technologies to improve acceptable norms. This course will also help students prepare for the DEB-110 exam. After taking this course, participants will know how to:

- Define data ethics
- Describe ethical frameworks
- Apply human-centered values to the use of data-driven algorithms
- Identify sources of ethical risk in data science
- Describe business and compliance considerations for the use of data

There are no prerequisites for this course.

CEET (Certified Ethical Emerging Technologist)

In this 3-day instructor-led course, students will learn to uphold their organization's ethical integrity when using emerging data-driven technologies such as artificial intelligence, machine learning, data science, and the Internet of Things (IoT). This course will also help students prepare for the CET-110 exam. After taking this course, participants will know how to:

- Identify the core principles and common terminology of data-driven technologies, ethical frameworks, privacy, and legal compliance
- Identify when it is appropriate to conduct an ethical risk review
- Identify potential ethical dilemmas that can conflict with regulatory compliance or business needs
- Choose appropriate solutions when applying an ethical or regulatory framework to a given problem
- Identify risks related to privacy, transparency, fairness, non-discrimination, safety, and security
- Effectively communicate the organization's ethical practices to internal and external parties
- Develop an ethical organizational culture
- Develop a code of ethics and supporting ethical policies for the organization
- Describe ethical considerations regarding the development, use, and governance of technology

There are no prerequisites for this course.

DATA SCIENCE

Big Data

Big Data is a four-day instructor-led class designed to introduce the concepts and technologies for processing and analyzing large datasets. The course covers various big data ecosystems, data mining techniques, and analytics tools. Participants will learn how to extract valuable insights from big data and apply them to drive business decisions.

- Understand the foundational concepts and technologies behind big data processing and analysis.
- Learn to apply data mining techniques and analytics tools to large datasets effectively.
- Gain practical skills in extracting and interpreting insights from big data to inform business strategy.

There are no prerequisites for this course.

DSBIZ (Data Science for Business Professionals)

In this 1-day instructor-led course, business professionals and leaders will learn how to use data science to inform business decisions. The course will also help prepare students for the DSZ-210 exam. After taking this course, participants will know how to:

- Explain the fundamentals of data science
- Identify functions of data science for business
- Implement business requirements for data science

There are no prerequisites for this course.

CDSP (Certified Data Science Practitioner)

In this 5-day instructor-led course, participants will learn to apply data science techniques to address business issues through a combination of lectures and hands-on activities. This course will also help students to prepare for the DSP-110 exam. At the end of this course, participants will know how to:

- Use data science principles to address business issues
- Apply the extract, transform, and load (ETL) process to prepare datasets
- Use multiple techniques to analyze data and extract valuable insights
- Design a machine learning approach to address business issues
- Train, tune, and evaluate classification models
- Train, tune, and evaluate regression and forecasting models
- Train, tune, and evaluate clustering models
- Finalize a data science project by presenting models to an audience, putting models into production, and monitoring model performance.

Prerequisites: Students taking this course should have a high-level understanding of data-science concepts; completion of the DSBIZ course or equivalent knowledge is recommended. They should also have experience with high-level languages such as Python and working with databases using querying languages such as SQL.

Practical Data Science with Amazon SageMaker

In this 1-day AWS course, students will learn about the stages of a data science process for Machine Learning. The course will teach students to:

- Understand a Data Set
- Identify the aspects of model building
- Demonstrate the capabilities of Amazon SageMaker

This course requires some understanding of programming languages.

Unlocking Your Potential through Data Science

This X-day instructor-led course teaches the data science concepts, frameworks, and tools that you and your staff need to use to make data-driven decisions and increase the efficiency of your organization. By the end of the program, students will be able to:

- Understand the landscape of data science tools and techniques
- Communicate effectively with data analysts and data scientists
- Identify the dangerous pitfalls of using data incorrectly.

There are no prerequisites for this course.

CYBERSECURITY

COMPTIA

CompTIA® Security+

This 5-day instructor-led course is aimed at IT security professionals and will teach you the basics of network security. By the end of this course, you will be able to secure a network, identify and mitigate risks, and manage access control. This course covers five domains:

- General Security Concepts
- Threats, Vulnerabilities and Mitigations
- Security Architecture
- Security Operations
- Security Program Management and Oversight

This course will fully prepare you for the CompTIA® Security+ Certification exam.

Prerequisites: You should have at least two years of network experience and a working knowledge of security concepts. It is also recommended that you have the CompTIA® Network+ Certification.

CompTIA® Cybersecurity Analyst (CySA+)

This 5-day, instructor-led course is aimed at IT security analysts, vulnerability analysts, or threat intelligence analysts. It covers the following domains:

1. Security Operations
- Vulnerability Management
- Incident Response and Management
- Reporting and Communication

This course will prepare you for the CSA+ Certification exam.

Prerequisites: You should have 3-4 years of hands-on experience with cybersecurity work. The Network+ and Security+ certifications are also recommended.

CompTIA® PenTest+

This 5-day instructor-led course is intended for cybersecurity professionals at an intermediate skills level. This course also addresses management skills for planning and managing identified network weaknesses. It can also be used to prepare for CompTIA's PT0-002 exam. It covers the following domains:

- Planning and Scoping
- Information Gathering and Vulnerability Scanning
- Attacks and Exploits
- Reporting and Communication
- Tools and Code Analysis

There are no prerequisites for this course.

CompTIA® Advanced Security Practitioner (CASP)

This 5-day, instructor-led course is aimed at IT security professionals responsible for designing and creating secure solutions for the entire organization. It covers the following domains:

1. Security Architecture
- Security Engineering
- Security Engineering and Cryptography
- Governance, Risk, and Compliance

This course will fully prepare you for the CASP Certification exam.

There are no prerequisites for this course. However, it is highly recommended that you have the CompTIA® Security+ Certification, as CASP is intended to be a follow-up. You should also have ten years of professional experience, including five with hands-on, technical security involvement.

EC-COUNCIL

EC-Council® Certified Secure Computer User (CSCU)

This 14-hour live online training course is designed for computer users who leverage the internet extensively for work, play, and study. It covers:

- Security Foundations
- Securing and Protecting Systems
- Data encryption, backup & recovery
- Internet security
- Securing online transactions, email, social networking, and mobile devices
- Social engineering & identity theft
- Information security & legal compliance

This course will fully prepare you for the CSCU Certification exam.

There are no prerequisites for this course. However, it is recommended that you have some entry-level experience using a computing device.

EC-Council® Certified Network Defender (CND)

This 5-day instructor-led course provides vendor-neutral network security knowledge that establishes network security technologies and operations for Defense-in-Depth network security preparedness. In this course, participants will learn the following:

- To protect, detect, and respond to network attacks
- Network defense fundamentals
- The application of network security controls, protocols, perimeter appliances, secure IDS, VPN and firewall configuration
- The intricacies of network traffic signature, analysis, and vulnerability scanning

There are no prerequisites for this course.

EC-Council® Network Security Administrator (ENSA)

This 5-day, instructor-led course is directed toward IT security professionals responsible for developing security policies to protect an organization's private information. This course will fully prepare you for the ENSA Certification exam. You will learn how to:

- Analyze external & internal threats against a network
- Evaluate Internet & network security issues & design
- Implement firewall strategies & security policies
- Expose & defend network and system vulnerabilities

There are no prerequisites for this course. However, it is highly recommended that you have hands-on networking experience and the CompTIA® Network+ Certification.

EC-Council® Certified Ethical Hacker (CEH)

This 5-day, instructor-led course is geared toward IT security professionals concerned with their organization's network infrastructure. This course will fully prepare you for the CEH Certification exam. It covers:

- Policy creation
- Intrusion detection
- Virus creation
- DDoS attacks
- Buffer overflows
- Social engineering

Prerequisites: Before taking this course, you should have at least two years of IT security work experience and a strong knowledge of TCP/IP and how to implement them. Though not required, it is also recommended that you have the CompTIA® Security+ Certification.

EC-Council® Computer Hacking Forensic Investigator (CHFI)

This 5-day, instructor-led course is geared toward IT security professionals in police and law enforcement, military and government, banking, network, and e-business. It will teach you how to:

- Detect different types of attacks
- Differentiate between various types of digital evidence
- Gather evidence to prosecute cyber criminals
- Secure a network & prevent an intrusion
- Recover lost & deleted files
- Track & investigate emails, logs, network traffic, wireless attacks & web attacks

This course will fully prepare you for the CHFI Certification exam.

Prerequisites: You should be familiar with Windows-based computer systems before taking this course.

EC-Council® Certified Security Analyst/Licensed Penetration Tester (ECSA/LPT)

This 5-day, instructor-led course is geared toward advanced IT security professionals who wish to learn more about penetration testing. This course will train you to become a Licensed Penetration Tester and prepare you for the ECSA Certification exam. You will learn how to:

- Test the measures networks have in place & gauge their effectiveness
- Identify & correct security flaws in high-risk network infrastructures
- Protect computer networks against a malicious attack

Prerequisites: Before taking this course, you must hold the EC-Council® CEH Certification.

EC-Council® Certified Threat Intelligence Analyst (CTIA)

This 3-day instructor-led course is a training and credentialing program designed and developed in collaboration with cybersecurity and threat intelligence experts across the globe to help organizations identify and mitigate business risks by converting unknown internal and external threats into known threats. It is a comprehensive specialist-level program that teaches a structured approach to building effective threat intelligence. At the completion of this course, participants will know:

- Current information security issues
- Fundamentals of Threat Intelligence
- The steps required to plan a threat intelligence program
- Data analysis types and techniques
- Different types of data and security threats
- The Cyber Kill Chain Methodology
- Advanced Persistent Threats (APT)

- Tactics, Techniques, and Procedures (TTPs)
- Indicators of Compromise (IoC's)
- Open Source Intelligence (OSINT)
- Human Intelligence (HUMINT)
- Methods of Counter Intelligence
- Malware Analysis
- Threat Intelligence sharing and reports

There are no prerequisites for this course.

EC-Council® Disaster Recovery Professional (EDRP)

This 3-day, instructor-led course is aimed at IT professionals responsible for disaster recovery and planning. It will teach you how to

- Assess & prevent risks to and organization
- Prepare a disaster recovery plan
- Develop necessary procedures and policies
- Understand the relationship roles of various members within an organization that is recovering from a disaster

This course will fully prepare you for the EDRP Certification exam.

Prerequisites: Before taking this course, you should have at least two years of experience in the information security field and hold the CompTIA® Security+ Certification.

EC-Council® Certified Incident Handler (ECIH)

This 2-day, instructor-led course is geared toward IT security professionals interested in incident handling and response. It will teach you:

- Law policies related to incident handling
- Various risk assessment methodologies
- How to manage & respond to computer security incidents within information systems
- How to handle present & future threats
- How to handle malicious code incidents, network security incidents & the risks of insider attacks

This course will prepare you for the ECIH Certification exam.

Prerequisites: Before taking this course, you should have at least two years of experience in the security field and hold the CompTIA® Security+ Certification.

EC-Council® Certified Secure Programmer (ECSP) - .NET & Java

This instructor-led course combines EC-Council's two Secure Programmer tracks, .NET and Java, into one 5-day course. This training is ideal for programmers with experience in the .NET and Java languages. It will teach you:

- .NET & Java security
- Secure software development
- Code access and class libraries security
- Cookie security
- .NET defense techniques
- Mitigating vulnerabilities
- File input/output and serialization
- Input validation
- Error handling and logging
- Authentication and authorization
- JAAS

- Java concurrency and session management
- Java cryptography
- Java application vulnerabilities

This course will prepare you for the ECSP Certification exam.

Prerequisites: Before taking this course, some experience using the .NET and Java languages is helpful.

EC-Council® Certified Chief Information Security Officer (CCISO)

This 5-day instructor-led course is designed for current and aspiring CISOs. It will teach you the 5 CCISO domains:

1. Governance, Risk, Compliance
2. Information Security Controls and Audit Management
3. Security Program Management & Operations
4. Information Security Core Competencies
5. Strategic Planning, Finance, Procurement, and Third-Party Management

This course will prepare you for the CCISO Certification exam.

Prerequisites: Before taking this course, candidates must prove 5 years of experience in at least three of the five domains.

FITSI

FITSP Auditor Certification

This 5-day certification training prepares the federal workforce, such as federal employees and contractors, to successfully and effectively audit operational, technical, and management IT security controls. This course prepares students to pass the FITSP Auditor certification exam.

Prerequisites: At least five years of general information systems security experience in the public or private sectors.

FITSP Designer Certification

This 5-day certification training emphasizes the skills necessary for designing and developing management, operational, and technical IT systems. This course prepares students to pass the FITSP Designer certification exam.

Prerequisites: At least five years of general information systems security experience in the public or private sectors.

FITSP Manager Certification

This 5-day certification training centers on the critical skills for overseeing and managing security controls of Federal information systems. This course prepares students to pass the FITSP Manager certification exam.

Prerequisites: At least five years of general information systems security experience in the public or private sectors.

FITSP Operator Certification

This five-day instructor-led FITSP Operator certification training is designed for federal employees and contractors who implement and operate systems controlled by the United States Federal Government. This course prepares students to pass the FITSP Operator certification exam.

Prerequisites: At least five years of general information systems security experience in the public or private sectors.

GIAC

GIAC Security Leadership Certificate (GSLC)

GIAC Security Leadership Certificate (GSLC) is a five-day instructor-led class aimed at professionals preparing for the GSLC certification. The course covers strategic security management, policy development, and leadership skills required for security professionals to lead teams and initiatives.

- Prepare for the GIAC Security Leadership Certificate examination with an in-depth review of the material.
- Learn strategic security management practices to protect organizations effectively.
- Develop leadership skills specific to security professionals, including policy development and team management.

There are no prerequisites for this course.

INTRODUCTORY CYBER SKILLS

BSF - Basic Security Fundamentals Part 1

BSF - Basic Security Fundamentals Part 1 is a five-day instructor-led class that lays the groundwork for understanding cybersecurity principles and best practices. Participants will learn about fundamental security concepts, threat landscapes, and protective measures to secure information and technology assets. The course is designed for individuals seeking to start a career in cybersecurity or enhance their understanding of security in a digital world.

- Acquire a solid understanding of fundamental cybersecurity principles and the current threat landscape.
- Identify and apply best practices for protecting information and technology assets against cyber threats.
- Prepare for further study or entry-level roles in cybersecurity with a strong foundation in basic security concepts.

There are no prerequisites for this course.

Cyber Security Skills Foundation

Cyber Security Skills Foundation is a five-day instructor-led class that builds a strong foundation in cybersecurity for beginners. The course covers essential concepts, tools, and protocols necessary for securing systems and networks. Participants will gain a comprehensive understanding of the cybersecurity landscape, including risk management and threat mitigation strategies.

- Gain a thorough understanding of cybersecurity concepts, tools, and protocols.
- Learn about risk management strategies and how to apply them in securing networks and systems.
- Develop an understanding of threat landscapes and mitigation techniques to protect against cyber-attacks.

There are no prerequisites for this course.

Cyber Safety

Cyber Safety is a four-day instructor-led class focused on educating individuals about safe practices when navigating digital spaces. Participants will learn about personal information protection, safe browsing habits, and how to recognize and avoid cyber threats. The course is essential for anyone seeking to enhance their cybersecurity awareness and safeguard their digital presence.

- Understand and implement strategies for protecting personal information in digital spaces.
- Develop skills for safe web browsing and identify secure websites.
- Recognize various cyber threats and learn effective responses to avoid or mitigate them.

There are no prerequisites for this course.

Introduction to Cyber Security for Practitioners

This 3-day instructor-led course provides an overview of security challenges and strategies of countermeasure in the information systems environment. Topics include the definition of terms, concepts, elements, and goals incorporating industry standards and practices with a focus on availability, vulnerability, integrity, and confidentiality aspects of information systems. Participants who complete this course will be able to:

- Explain the concepts of information systems security as applied to an IT infrastructure
- Describe how malicious attacks, threats, and vulnerabilities impact an IT infrastructure
- Explain the role of access controls in implementing a security policy
- Explain the role of operations and administration in effective implementation of security policy
- Describe the principles of risk management, common response techniques, and issues related to recovery of IT systems
- Explain how businesses apply cryptography in maintaining information security
- Analyze the importance of network principles and architecture to security operations
- Explain the means attackers use to compromise systems and networks and defenses used by organizations
- Apply international and domestic information security standards and compliance laws to real-world implementation in both the private and public sector

There are no prerequisites for this course. Our Introduction to Cyber Security for Practitioners course is designed for anyone in the IT field seeking to gain foundational knowledge of cyber security.

CYBER DEFENSES

Counterintelligence for Cyber Professionals

This 2-day course provides valuable insight for information security professionals and consultants, as well as government, military, and corporate IT strategists who must defend against myriad threats from nonstate actors. The course covers the operations and tactics of cyber criminals, who are changing the dynamics of cyber warfare and information security through their unconventional strategies and threats.

Prerequisites: Individuals taking this course should have some work experience in the IT field. CompTIA Security+ or EC-Council CEH certifications, or equivalent experience or knowledge, are recommended.

Cyber Defender: Immediate Immersion

Cyber Defender: Immediate Immersion is a five-day instructor-led class that provides a rapid deep dive into the world of cybersecurity defense. Attendees will engage in immersive labs and simulations to learn about the latest threats and defense mechanisms. The course is structured for immediate practical application, ensuring that participants can actively respond to cyber threats post-training.

- Acquire up-to-date knowledge of cybersecurity threats and defense mechanisms.
- Engage in immersive labs and simulations to apply cybersecurity knowledge in realistic scenarios.
- Prepare to actively defend against cyber threats with immediate, practical application of skills learned.

There are no prerequisites for this course.

Cyber Threat Intelligence

Cyber Threat Intelligence is a three-day instructor-led class that teaches the methodology of collecting, analyzing, and applying intelligence about threats and adversaries. The course focuses on the practical applications of threat intelligence in anticipating and mitigating cyber-attacks. Participants will learn how to integrate threat intelligence into their cybersecurity practices to enhance organizational resilience.

- Master the process of collecting, analyzing, and applying cyber threat intelligence.
- Learn how to use threat intelligence for proactive defense against potential cyber attacks.
- Integrate threat intelligence into cybersecurity strategies to enhance organizational security posture.

There are no prerequisites for this course.

There are no formal prerequisites for this course; however, participants should be familiar with Ethernet, TCP/IP, SANs, Fibre Channel, hypervisor technologies, and server system architectures. They should also understand the Cisco Enterprise Data Center architecture and be able to identify products in the Cisco Data Center Nexus and Cisco MDS families.

Cyber Tools and Analysis

This 2-day course provides valuable insight for information security professionals and consultants, as well as government, military, and corporate IT strategists who must defend against myriad threats from nonstate actors. The course covers the operations and tactics of cyber criminals, who are changing the dynamics of cyber warfare and information security through their unconventional strategies and threats.

Prerequisites: Individuals taking this course should have some work experience in the IT field. CompTIA Security+ or EC-Council CEH certifications, or equivalent experience or knowledge, are recommended

Cyber Warfare for Management

Our 3-day instructor-led course is designed for IT security professionals interested in the field of cyber operations/warfare. It will teach you:

- The operational, strategic & tactical aspects of cyber conflicts
- How the world engages in cyber warfare
- How to develop a strategic cyber security strategy for your organization
- How to allocate resources to boost security

Prerequisites: Prior to taking this course, you should have at least three years of experience in the IT field. Though not required, it is also recommended that you have the CompTIA® Security+ and/or the EC-Council® CEH certifications.

Cyber Warfare for Practitioners

Our 3-day, instructor-led course is designed for IT professionals such as auditors, managers, and security analysts. It will cover:

- The battlefields, students, tools & techniques of cyber warfare
- The ethics, laws & consequences of cyber warfare
- How computer criminal law may change because of cyber warfare
- How to identify & defend a network against malicious attacks
- Hacktivism, espionage & insider threats

Prerequisites: Prior to taking this course, you should have some experience in the IT field. Though not required, it may be helpful to have the CompTIA® Security+ and/or the EC-Council® CEH certifications.

Defending Against Social Engineering Attacks

Our 3-day, instructor-led course is directed toward IT professionals responsible for protecting their organization's sensitive data from social engineering and other attacks. It covers all aspects of social engineering, including:

- Elicitation
- Pretexting
- Influence
- Manipulation

Prerequisites: Before taking this course, it is recommended that you have experience in the IT field. It may also be helpful to have the CompTIA® Security+ Certification.

Hacker Techniques, Tools, and Incident Handling

Our 4-day, instructor-led course is designed for cyber security professionals. It will teach you:

- The landscape, key terms, and concepts that a security professional needs to know about hackers and computer criminals who break into networks, steal information, and corrupt data
- How attacks target networks and the methodology that they follow
- What social engineering means in the context of cybersecurity

Prerequisites: Before taking this course, you should have some professional experience in the field of cybersecurity.

FORENSICS

Cyber Security Investigations and Forensics Analysis

Cyber Security Investigations and Forensics Analysis is a five-day instructor-led class designed for professionals who wish to learn the techniques of cyber forensics and investigation. The course provides hands-on experience with tools and methods for data recovery, analysis of malicious software, and investigation of cybercrimes. Attendees will learn the legal and technical aspects of conducting cybersecurity investigations.

- Acquire practical skills in using forensic tools and techniques for data recovery and analysis.
- Learn to analyze and interpret malicious software for cybersecurity investigations.
- Understand the legal framework and ethical considerations in conducting cyber investigations.

There are no prerequisites for this course.

Network Forensics

Our 5-day, instructor-led course is directed toward IT security professionals in police and law enforcement, military and government, banking, network, and e-business. This course will teach you how to:

- Carve suspicious email attachments from packet captures
- Use flow records to track intruders
- Analyze wireless encryption-cracking attacks
- Reconstruct a suspect's web surfing history (including cached pages) from a web proxy
- Uncover DNS-tunnels traffic
- Dissect the Operation Aurora exploit

There are no specific prerequisites for this course. However, it is highly recommended that you have either the CompTIA® Network+ or Security+ Certification before enrolling in this course.

System Forensics, Investigation, and Response

Our 5-day, instructor-led course is designed for cyber security professionals with an interest in the field of system forensics. It will teach you:

- The fundamentals of system forensics
- The role of computer forensic specialists
- About computer crimes, forensic methods, and laboratories
- How to use the tools, techniques, and methods to perform computer forensics and investigations
- About the emerging technologies and future directions of computer forensics

Prerequisites: Before taking this course, you should have some professional experience in the field of cybersecurity.

GOVERNANCE, RISK, AND COMPLIANCE

Auditing IT Infrastructures for Compliance

Our 3-day, instructor-led course is designed for security officers and auditors. It will teach you:

- How to audit IT infrastructures for compliance based on the most recent laws
- How to audit IT infrastructures based on the need to protect and secure business and consumer privacy data
- How to skillfully complete IT compliance auditing

There are no prerequisites for this course. However, you are encouraged to have a general working knowledge of information systems prior to enrollment.

Information Security Risk Assessment Through Data Collection & Analysis

Our 4-day, instructor-led course is directed toward professionals with job roles related to information security. It will teach you how to:

- Conduct effective risk assessment
- Decipher what needs protection & what risks those assets are exposed to
- Develop controls to offset risks

Prerequisites: You should have some experience in the IT security field prior to taking this course.

Legal Issues in Cyber Security

Our 3-day, instructor-led course is designed for IT security professionals interested in the fields of cyber security, information security, and information assurance. It will teach you:

- How to protect critical governmental and corporate infrastructure, intellectual property created by individuals and organizations alike, and information that individuals believe should be protected from unreasonable intrusion.
- How to build numerous information security and privacy responses to protect business
- The steps to take to fully meet legal requirements and the expectations of employees

Prerequisites: You should have some experience in the IT security field prior to taking this course.

Managing Risk in Information Systems

Our 4-day, instructor-led course is designed for IT security professionals interested in the field of cyber security. It will teach you:

- Risks, threats, and vulnerabilities associated with the transformation to a digital world
- Cloud computing, risk analysis, IP mobility, OMNIBus, and Agile Software Development
- Changes in laws, security certificates, standards, amendments, and the proposed Federal Information Security Amendments Act of 2013 and HITECH Act

Prerequisites: You should have some experience in the IT security field prior to taking this course.

Security Policies and Implementation Issues

Our 3-day, instructor-led course is designed for security officers, auditors, and risk leaders. It will teach you:

- Key concepts of information security such as governance, regular mandates, business drivers, and legal consideration.
- The process of implementing successful sets of security policies and frameworks
- What technical knowledge and which software skills are required for policy implementation

Prerequisites: You should have some experience in the IT security field prior to taking this course.

INCIDENT RESPONSE

CyberSec First Responder (CFR)

This 5-day instructor-led course covers network defense and incident response methods, tactics, and procedures. This course also covers network defense and incident response methods, tactics, and procedures are taught in alignment with industry frameworks such as NIST 800-61 r.2 (Computer Security Incident Handling), US-CERT's NCISP (National Cyber Incident Response Plan), and Presidential Policy Directive (PPD) 41 on Cyber Incident Coordination Policy. It is ideal for candidates who have been tasked with the responsibility of monitoring and detecting security incidents in information systems and networks and for executing standardized responses to such incidents. It will also help participants prepare for the CFR-410 exam. In this course, participants will learn to:

- Manage cybersecurity risks
- Identify various types of common threats

- Evaluate the organization's security
- Collect and analyze cybersecurity intelligence
- Report/remediate incidents as they occur.

There are no prerequisites for this course.

Cyber Security: Threat Analysis and Response Solutions

Our 3-day, instructor-led course covers the following topics:

- Threat identification
- Insider threat prevention
- Detection and mitigation
- Assessment of security assurance
- Information terrorism
- Information security management standards
- Public policy drivers
- The role of information security professionals

Prerequisites: Before taking this course, you should have some knowledge of threat identification, detection and mitigation, security assurance, and network security protocol.

Incident Response

Our 4-day, instructor-led course covers the following topics:

- Detect evaluation
- Analysis
- Situation handling
- Theories involved in understanding hackers
- Intelligence gathering
- Coordinated attacks
- Preventive and aggressive security measures.

Prerequisites: Before taking this course, you should have some knowledge of common system and network security threats, analysis techniques, and data recovery.

Root Cause Analysis

Our 1-day, instructor-led course will teach students how to:

- Discuss the scientific method
- Determine how to identify tools that can be used to correct actions
- Understand how to implement RCA tools in real-world situations
- Study statistical information and data analysis
- Learn how to address customer compliance issues

Prerequisites: Before taking this course, students should have minimal to significant experience in Systems Administration, specifically in Windows work environments, and understand security best practices.

INFRASTRUCTURE SECURITY

Access Control, Authentication, and Public Key Infrastructure

Our 3-day, instructor-led course is designed for cyber security professionals. It will teach you:

- How to protect resources against unauthorized viewing, tampering, or destruction.

- How to ensure privacy, confidentiality, and prevention of unauthorized disclosure
- The components of access control, a business framework for implementation, and the legal requirements that impact access control.
- The risks, threats, and vulnerabilities prevalent in information systems and IT infrastructures

There are no prerequisites for this course. However, you should have some experience in the IT security field prior to taking this course.

Cloud Security

Our 4-day, instructor-led course is designed for cyber security professionals. Students will learn:

- Practical solutions to a wide range of cloud computing issues
- Cloud security technology and implementation

Prerequisites: Before taking this course, you should have an understanding of basic cloud computing and security fundamentals.

Defending the Critical Infrastructure from Cyber Attacks

This 5-day course examines the unique protocols and applications that are the foundation of industrial control systems and provides clear guidelines for their protection. The course provides a thorough understanding of the unique challenges facing critical infrastructures, new guidelines and security measures for critical infrastructure protection, knowledge of new and evolving security tools, and pointers on SCADA protocols and security implementation.

Prerequisites: Individuals should have at least three years experience in the IT field, specifically security. CompTIA Security+ or EC-Council CEH certifications, or the equivalent experience or knowledge, are also recommended.

Endpoint Security and Network Access Control

This 3-day course defines the components of access control, provides a business framework for implementation, and discusses legal requirements that impact access control programs. It looks at the risks, threats, and vulnerabilities prevalent in information systems and IT infrastructures and how to handle them. It provides a student and professional resource that details how to put access control systems to work as well as testing and managing them.

Prerequisites: Individuals taking this course should have some work experience in the IT field. CompTIA Security+ or EC-Council CEH certifications, or equivalent knowledge and experience, are recommended.

Internet Security: How to Defend Against Attackers on the Web

Our 4-day, instructor-led course is designed for cyber security professionals. It will teach you:

- How to secure mobile users as customer-facing information migrates from mainframe computers and application servers to Web-enabled applications
- Which risks, threats, and vulnerabilities are associated with web-enabled applications

Prerequisites: Before taking this course, you should have some professional experience in the field of cybersecurity.

Securing Microsoft Windows 7

Our 4-day, instructor-led course will include lectures and exercises in:

- Installation and deployment
- Windows 7 environment management
- Desktop features
- Technical help for troubleshooting and networking

Prerequisites: Before taking this course, students should have minimal to significant experience in Systems Administration, specifically in Windows work environments, and understand security best practices.

Securing SharePoint

Our 4-day, instructor-led course covers:

- SharePoint administration
- SharePoint server deployment
- Protecting SharePoint
- Implementing and Testing SharePoint
- Configuring SharePoint

Prerequisites: Before taking this course, you should have some experience with SharePoint administration.

Securing the Virtual Environment

Our 4-day, instructor-led course is designed for cyber security professionals. Students will learn:

- The difference in virtual vs. traditional computing models
- Various topics related to information security in virtual environments

Prerequisites: Before taking this course, you should have some knowledge of cloud computing, cloud security, and networking.

Security Strategies in Linux Platforms and Applications

Our 4-day, instructor-led course is designed for IT professionals responsible for designing, deploying, and securing Linux platforms and applications. It will teach you:

- Which new risks, threats, and vulnerabilities are associated with the Linux as an operating system
- How to take advantage of the layers of security available to Linux users and group options, filesystems, and security options for important services
- About the use of open source and proprietary tools when building a layered security strategy for Linus operating system environments

Prerequisites: Before taking this course, you should have some professional experience in the field of IT and a basic understanding of Linux operating systems.

Security Strategies in Windows Platforms and Applications

Our 4-day, instructor-led course is designed for IT professionals responsible for designing, deploying, and securing Microsoft Windows platforms and applications. It will teach you:

- Which new risks, threats, and vulnerabilities are associated with the Microsoft Windows OS
- How to use tools and techniques to decrease risks arising from vulnerabilities in Microsoft Windows OS and applications
- Resources for Microsoft Windows OS hardening, application security, and incident management

Prerequisites: Before taking this course, you should have some professional experience in the field of IT and a basic understanding of Microsoft Windows.

Understanding Web Security

Our 4-day, instructor-led course covers the following topics:

- Security theory
- Technology
- Practice as they relate to established web technologies as well as recent advances

Prerequisites: Before taking this course, you should have some knowledge of:

- Web application operation
- Web server administration
- Web browser/server operation
- Session Management

- Basic HTML
- Server-side web application development

Windows System Analysis

Our 5-day, instructor-led course will teach students how to:

- Understand and follow the analysis process
- Find malware in Windows systems
- Examine user activity on Windows systems
- Conduct intrusion analysis on a web server
- Set up a test environment to explore concepts and test theories

Prerequisites: Before taking this course, students should have minimal to significant experience in Systems Administration, specifically in Windows work environments, and understand security best practices.

MALWARE ANALYSIS

Behavioral Malware Analysis

Behavioral Malware Analysis is a five-day instructor-led class that teaches techniques for analyzing and mitigating malware based on its behavior. Participants will learn how to identify and assess the characteristics of malware through hands-on labs and real-world scenarios. The course aims to provide a deep understanding of behavioral patterns of malware to enhance cybersecurity defense strategies.

- Learn techniques to analyze and identify malware based on behavioral patterns.
- Develop skills in using tools and methods for effective malware mitigation.
- Apply knowledge in hands-on scenarios to reinforce learning and preparedness for real-world cybersecurity challenges.

There are no prerequisites for this course.

Malware Analysis

Our 4-day, instructor-led course will teach students how to:

- Extract the metadata associated with malware
- Create a safe and isolated lab environment for malware analysis
- Determine malware's interaction with the system
- Perform code analysis using IDA Pro and x64dbg
- Reverse-engineer various malware functionalities
- Reverse engineer and decode common encoding/encryption algorithms
- Perform different code injection and hooking techniques
- Investigate and hunt malware using memory forensics

Prerequisites: Before taking this course, students should have minimal to significant experience in Systems Administration, specifically in Windows work environments, and understand security best practices.

Practical Malware Analysis

Our 3-day, instructor-led course is aimed at IT security professionals in a malware analyst or forensic investigator job role. You will learn how to:

- Dissect malware to better understand how it works
- Identify & eliminate malware from a system
- Defend against future attacks
- Act quickly in the event of an attack

Prerequisites: Before taking this course, you should have at least two years of networking experience. It is also recommended that you have either the CompTIA® Network+, Security+, or EC-Council® CEH Certification before enrolling in this course.

NETWORK ANALYSIS

Basic Network Analysis 101

Our 5-day, instructor-led course is designed for cyber security professionals. It will cover:

- Building a Cyber Range
- Introduction to TCP/IP
- TCP/IP Protocol Suite
- IP Addressing
- IP Routing
- Host Name Resolution
- Domain Name System
- Introduction to Sessions
- IPsec and Packet Filtering
- Virtual Private Network (VPN)
- Introduction to Hacking
- Hacking Analysis Methodology
- Web Application Hacking

Prerequisites: Before taking this course, you should have some experience and knowledge of networking and security practices.

Basic Network Analysis 102

Our 5-day, instructor-led course is designed for cyber security professionals. It will cover:

- Conducting Protocol Analysis
- Wireshark Filtering
- Protocol Analysis
- Analyzing Basic Attacks
- Advanced Attack Analysis
- Incident Response
- Process Analysis
- Live Memory Analysis
- Malware
- Leveraging Analysis Results with Tools

Prerequisites: Before taking this course, you should have some experience and knowledge of networking and security practices.

Information Systems Continuous Monitoring (ISCM)

Our 1-day, instructor-led course will teach students how to:

- Identify how risk management helps protect government assets
- Examine Information Security Continuous Monitoring (ISCM) support of the three-tiered approach to risk management
- Describe how configuration management controls enable continuous monitoring
- Examine audit log support for continuous monitoring
- Understand counterintelligence and cybersecurity personnel support to continuous monitoring

Prerequisites: Before taking this course, students should have minimal to significant experience in Systems Administration, specifically in Windows work environments, and understand security best practices.

Malicious Analysis Network Traffic

Malicious Analysis Network Traffic is a five-day instructor-led class dedicated to techniques for analyzing network traffic to identify and respond to cybersecurity threats. Attendees will learn about network protocols, traffic analysis tools, and methodologies for detecting malicious activities.

- Understand network protocols and the basics of network traffic analysis.
- Learn to use traffic analysis tools and techniques to detect malicious activities.
- Develop skills in analyzing network traffic for cybersecurity threat identification and response.

There are no prerequisites for this course.

Network Defense Range

Our 5-day, instructor-led course will teach students how to:

- Identify the required components for a cyber range and build it
- Understand to the lowest level the components and characteristics of TCP/IP
- Apply session analysis techniques to network traffic
- Evaluate IPsec network traffic and understand packet filtering techniques
- List the steps of a hacking methodology
- Perform analysis of hacking techniques and tools
- Understand the components of advanced and sophisticated attacks
- Identify the steps of protocol analysis
- Deploy filters to expedite the analysis of network capture files
- Perform low-level analysis using low-level protocol analysis tools
- Create and customize their own network packets to perform different tasks
- Install, Configure, and Tune an Intrusion Detection System
- Deploy analysis tools to assist with network analysis
- Evaluate potential incidents and draft reports of an incident
- List the steps of basic and advanced process analysis
- Understand live memory and the basics of malware analysis
- Explore the concept of leveraging results with different tools

Prerequisites: Before taking this course, students should have minimal to significant experience in Systems Administration, specifically in Windows work environments, and understand security best practices.

Network Intrusion Detection

Our 4-day, instructor-led course will teach students about:

- Detection evaluation
- Analysis
- Situation handling
- Theories in understanding hackers
- Intelligence gathering
- Coordinated attacks

Prerequisites: Before taking this course, students should have knowledge of TCP/IP and hexadecimal, as well as various Linux commands, and experience and comfort using them.

Network Traffic Analysis

Our 5-day, instructor-led course will teach students how to:

- Demonstrate knowledge of the TCP/IP protocol suite at the lowest level
- Analyze network communications

- Identify different components of network communications
- Determine if the communications are normal or abnormal
- Examine the hacking methodology
- Create a network analysis cyber range

Prerequisites: Before taking this course, students should have minimal to significant experience in Systems Administration, specifically in Windows work environments, and understand security best practices.

Packet Capture Analysis Level 1-4

Packet Capture Analysis Level 1-4 is a five-day instructor-led class that offers a deep dive into network packet analysis. The course covers the tools and techniques for capturing and analyzing network traffic to troubleshoot, optimize, and secure networks.

- Understand the tools and techniques for capturing and analyzing network packets.
- Troubleshoot network issues and optimize network performance through packet analysis.
- Enhance network security by identifying and mitigating threats through traffic analysis.

There are no prerequisites for this course.

Practical Packet Analysis

Our 4-day, instructor-led course covers the following topics:

- Basic packet analysis fundamentals
- Introduction to Wireshark
- How using various aspects of Wireshark can help secure your network on the packet level

Prerequisites: Before taking this course, you should have some experience working with networks, packet analysis, and Wireshark.

NETWORK DEFENSE

Configuring CISCO Routers for Network Security

Our 4-day, instructor-led course is designed for cyber security professionals using Cisco IOS routers. Students will learn how to:

- Develop security infrastructures
- Identify network threats and vulnerabilities
- Mitigate security risks

Prerequisites: Before taking this course, you should have some experience and knowledge of networking and security practices and experience with CISCO products.

Cyber Security and Embedded Systems

This 4-day instructor-led course explores the technical security skills and knowledge applied to web attacks, hacking, spyware, network defense, security appliances, VPNs, password use, etc. Throughout the training, students should come to understand varied aspects of security, including the establishment of security objectives and policies in addition to the many technical tools necessary for organizational security and cyber safety. By the end of this course, participants will be able to:

- Identify and prioritize potential threats to your network
- Use basic networking knowledge to improve security
- Get inside the minds of hackers so you can deter their attacks
- Implement a proven layered approach to network security
- Resist modern social engineering attacks
- Defend against today's most common Denial of Service (DoS) attacks

- Halt viruses, spyware, worms, Trojans, and other malware
- Prevent problems arising from malfeasance or ignorance
- Choose the best encryption methods for your organization
- Compare security technologies, including the latest security appliances
- Implement security policies that will work in your environment
- Scan your network for vulnerabilities
- Evaluate potential security consultants
- Master basic computer forensics and know what to do if you're attacked
- Learn how cyberterrorism and information warfare are evolving

There are no prerequisites for this course.

Cyber Threats Detection and Mitigation

This 4-day instructor-led course explores the technical security skills and knowledge applied to web attacks, hacking, spyware, network defense, security appliances, VPNs, password use, etc. Throughout the training, students should come to understand varied aspects of security, including the establishment of security objectives and policies in addition to the many technical tools necessary for organizational security and cyber safety. By the end of this course, participants will be able to:

- Identify and prioritize potential threats to your network
- Use basic networking knowledge to improve security
- Get inside the minds of hackers so you can deter their attacks
- Implement a proven layered approach to network security
- Resist modern social engineering attacks
- Defend against today's most common Denial of Service (DoS) attacks
- Halt viruses, spyware, worms, Trojans, and other malware
- Prevent problems arising from malfeasance or ignorance
- Choose the best encryption methods for your organization
- Compare security technologies, including the latest security appliances
- Implement security policies that will work in your environment
- Scan your network for vulnerabilities
- Evaluate potential security consultants
- Master basic computer forensics and know what to do if you're attacked
- Learn how cyberterrorism and information warfare are evolving

There are no prerequisites for this course.

IPv6 for Security Professionals

IPv6 for Security Professionals is a four-day instructor-led class that addresses the security implications of the IPv6 protocol. Attendees will learn about the features of Ipv6, potential security risks, and strategies for securing networks in an Ipv6 environment.

- Understand the features and benefits of Ipv6 and its impact on network security.
- Identify potential security risks associated with Ipv6 deployment.
- Learn strategies and best practices for securing networks in an Ipv6 environment.

There are no prerequisites for this course.

Mobile Security

Our 4-day, instructor-led course is designed for cyber security professionals. It will teach you:

- Which risks, threats, and vulnerabilities are associated with wireless networks
- How to implement the security measures that will protect your mobile network from these threats
- To mitigate breaches in mobile security
- The policies and procedures to incorporate for mobile security

Prerequisites: Before taking this course, you should have some professional experience in the field of cybersecurity.

Network Defense: Security and Vulnerability Assessment

Our 4-day, instructor-led course is designed for cyber security professionals. It will cover:

- Web Security
- Email Security
- Authentication, Encryption, and Digital Signatures
- Virtual Private Networks
- Fault Tolerance
- Incident Response
- Disaster Recovery Planning and Risk Analysis

Prerequisites: Before taking this course, you should have some experience and knowledge of networking and security practices.

Network Security Administration for Practitioners

Our 5-day, instructor-led course is designed for cyber security professionals. It will cover:

- Network protocols
- Analyzing protocols
- Hardening physical security
- Organizational security standards
- Security policies
- IEEE standards
- Network security threats
- IPS and IDS

Prerequisites: Before taking this course, you should have some experience and knowledge of networking and security practices.

Network Security, Firewalls, and VPNs

Our 5-day, instructor-led course is designed for cyber security professionals. It will teach you:

- About the major business challenges and threats that are introduced when an organization's network is connected to the public Internet
- How hackers access online networks and the use of firewalls and VPNs to provide security countermeasures
- How to disarm threats and prepare for emerging technology and future attacks

Prerequisites: Before taking this course, you should have some professional experience in the field of cyber security.

Securing VoIP Networks

Our 3-day, instructor-led course is aimed at IT professionals responsible for designing, deploying, and securing VoIP networks. It will teach you how to:

- Evaluate existing voice services & tools
- Determine capability & bandwidth requirements
- Integrate with the Public Switched Telephone Network (PSTN)
- Adapt legacy phones
- Create a Dial Plan
- Optimize Quality of Service (QoS) mechanisms
- Configure & manage Session Initiation Protocol (SIP)
- Integrate voicemail, email & instant messaging

Prerequisites: Before taking this course, you should have some professional experience in the field of IT and a basic understanding of VoIP and TCP/IP.

Security in an IPv6 Environment

Our 4-day, instructor-led course is geared toward IT security professionals who work with IPv6 networks. It covers:

- IPv6 features, security vulnerabilities, considerations & mechanisms
- Survey approaches for ensuring a reliable and controlled IPv6 mitigation
- Potential exploitation of IPv6 protocol

Prerequisites: Before taking this course, you should have working knowledge and experience with networking concepts and best practices.

PROACTIVE SECURITY

Cyber Threat Counter-Exploitation

Our 2-day, instructor-led course will teach students how to:

- Set up digital traps
- Misdirect and divert attackers
- Configure honeypots
- Mitigate encrypted crimeware
- Identify malicious software groups.

Prerequisites: Before taking this course, students should have prior experience responding to security intrusions and other incidents from an APT

Hands-On Hacking

This 5-day course allows students to practice using the tools and tricks that make an ethical hacker great! This course is 100% hacking. Our expert instructor will be present to guide your experience and answer your questions, but your time will be spent with your fingers on a keyboard!

Prerequisites: Individuals should have at least two years' experience in IT security and a strong understanding of TCP/IP.

Penetration Testing: Procedures and Methodologies

Our 5-day, instructor-led course covers the following topics:

- Methodologies
- Legal aspects
- Planning and scheduling
- External and internal penetration testing
- Firewall and IDS penetration testing, as well as penetration testing of laptops, mobile devices, e-mail, and security patches

Prerequisites: Before taking this course, you should have some knowledge of the skills imparted in the EC-Council Certified Ethical Hacker (CEH) and Certified Security Analyst (ECSA) training courses.

Wireless Hacking

Our 4-day, instructor-led course is designed for IT professionals in the field of cyber security, such as forensic investigators and malware analysts. It covers:

- The basics of wireless security
- Effective attack methods & remediation tactics
- 802.11 wireless networks deployed within a home or enterprise setting
- 802.11 wireless networks with a client focus
- Hacking additional wireless technologies

Prerequisites: Before taking this course, you should have at least two years of networking experience. It is also recommended that you have either the CompTIA® Network+, Security+, or EC-Council® CEH Certification.

SECURE DEVELOPMENT COURSES

Python Security for Practitioners

Our 4-day, instructor-led course will teach students how to create their own security defense using the Python programming language.

Prerequisites: Before taking this course, students should have basic experience and understanding of any scripting or programming language.

Security Architecture

Security Architecture is a four-day instructor-led class that provides an overview of designing and implementing security frameworks for IT systems. Attendees will explore the principles of secure architecture, risk management, and the integration of security layers.

- Learn the principles of designing secure IT architectures.
- Understand risk management strategies and how to apply them in security planning.
- Integrate multiple layers of security to protect IT systems effectively.

There are no prerequisites for this course.

Secure Coding in Java Professional Certificate

Secure Coding in Java Professional Certificate is a five-day instructor-led class that teaches best practices in writing secure Java applications. The course is designed to help programmers understand security principles and apply them in Java coding to prevent vulnerabilities.

- Understand key security principles for Java application development.
- Learn best practices for secure coding to prevent common vulnerabilities.
- Acquire a professional certificate demonstrating expertise in secure Java coding.

There are no prerequisites for this course.

Software Quality Assurance (SQA) and Secure Coding using Python

Software Quality Assurance (SQA) and Secure Coding using Python is a five-day instructor-led class that combines software testing methodologies with secure coding practices in Python. The course covers the essentials of building robust and secure Python applications.

- Master SQA methodologies to ensure the quality and reliability of Python applications.
- Learn secure coding practices to protect Python applications from vulnerabilities.
- Apply testing and security principles to develop robust Python software.

There are no prerequisites for this course.

ADVANCED HANDS-ON CYBER SECURITY

Burp Suite

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- How to perform security tests on web applications using Burp
- How to use different components of Burp Suite, including Proxy, Intruder, Scanner, and Repeater

- To customize Burp Extensions when using Java, Python, and Ruby

Prerequisites: Before taking this course, students should have minimal to significant experience with web applications.

Elk Stack

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- How to perform real-time data analytics on streaming data and turn them into actionable insights
- How to create indexing and delete data
- All about the components of ELK Stack (Elasticsearch, Logstash, and Kibana)
- Shipping, filtering, and parsing events with Logstash
- How to build visualizations and dashboards using Data Discovery, Visualization, and Dashboard with Kibana

Prerequisites: Before taking this course, students should have minimal to significant experience with system administration and data analysis.

IDA Pro

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- To navigate, comment, and modify disassembly
- To identify known library routines
- To use code graphing to quickly make sense of cross-references and function calls
- To extend IDA to support new processors and filetypes using the SDK
- To use IDA's built-in debugger to tackle hostile and obfuscated code

Prerequisites: Before taking this course, students should have minimal to significant experience with software development

Kali

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- To expose wireless security threats through the eyes of an attacker
- To use recipes to help proactively identify vulnerabilities and apply intelligent remediation
- To acquire and apply wireless pentesting skills

Prerequisites: Before taking this course, students should have minimal to significant experience with cybersecurity.

My SQL Workbench

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- An overview of My SQL Workbench, including installation and configuration
- The functionality of My SQL Workbench
- Database development, design, and modeling

Prerequisites: Before taking this course, students should have minimal to significant experience with database administration.

Nipper Studio

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- An overview of Nipper Studio
- How to install and navigate Nipper Studio
- Obtaining and adding files to Nipper Studio
- Report options, customizing reports, saving reports, and report comparison

Prerequisites: Before taking this course, students should have minimal to significant experience with network administration.

RedSeal

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- An overview of RedSeal and the platform architecture
- The fundamentals of being a RedSeal administrator
- RedSeal vulnerability management capabilities
- How to monitor overall network security and measure digital resilience with RedSeal

Prerequisites: Before taking this course, students should have minimal to significant experience with cybersecurity.

Security Onion 12.04

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- How analysis tools that comprise Security Onion are used for network security monitoring and intrusion detection
- How security onion tools work with network data

Prerequisites: Before taking this course, students should have minimal to significant experience with network administration.

Splunk

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- Splunk installation
- To create reports, dashboards, and alerts
- To model data for business users using Splunk's Pivot functionality

Prerequisites: Before taking this course, students should have minimal to significant experience with system administration and data analysis.

INFORMATION TECHNOLOGY

COMPTIA

CompTIA® A+

This 5-day, instructor-led course is ideal for someone in the early stages of their IT career. It covers:

- Basic computer hardware
- PC installation & configuration
- Networking & connectivity
- Laptop, mobile device & printer maintenance
- Operating systems
- Security

This course will prepare you for both parts of the A+ Certification exam.

There are no prerequisites for this course. However, it is recommended that you have basic knowledge of computing concepts and experience using computers that run on a Windows operating system before enrolling in this course.

CompTIA® Network+

This 5-day, instructor-led course is geared toward IT networking professionals. It will teach you about:

- Network installation & configuration
- Media & topologies
- Network management
- Troubleshooting
- Network security

This course will prepare you for the Network+ Certification exam.

Prerequisites: You should have at least 9-12 months of networking experience prior to taking this course. Though not required, it is also recommended that you have the CompTIA® A+ Certification.

CompTIA® Linux+

This 5-day, instructor-led course is geared toward IT systems professionals who work with the Linux operating system. It covers:

- System architecture
- Linux installation & package management
- GNU & Unix commands
- Linux filesystems & filesystem hierarchy standards
- Shells
- Scripting & data management
- User interfaces & desktops
- Administrative tasks & essential system services
- Networking fundamentals & security

This course prepares you for both parts of the Linux+ Certification exam.

Prerequisites: You should have at least 6-12 months of experience working with a Linux OS before taking this course. Though not required, it is also recommended that you have the CompTIA® A+ and Network+ Certifications.

CompTIA® Server+

This 5-day, instructor-led course is aimed at IT networking professionals. It covers server technologies related to:

- System hardware
- Software
- Disaster recovery
- Maintenance
- Troubleshooting

This course will prepare you for the Server+ Certification exam.

Prerequisites: you should have at least 18-24 months of experience with server technology before taking this course. We also recommend getting the CompTIA® A+ or Network+ certifications.

CompTIA® Cloud Essentials

This 3-day, instructor-led course is geared toward business analysts and other IT staff and teaches you how to implement and govern a cloud environment. It covers:

- Characteristics of cloud services and the value of cloud computing from a business perspective
- Cloud types
- Successful adoption of cloud computing
- Impacts & changes cloud computing has on IT service management
- Consequences & risks of cloud computing

This course will prepare you for the Cloud Essentials Certification exam.

Prerequisites: You should have about six months of experience working in the field of IT before this course.

CompTIA® Cloud+

This 5-day, instructor-led course is ideal for IT professionals such as Cloud Specialists, Cloud Developers, Data Center Administrators, and Network Architects. It covers:

- Cloud virtualization
- Cloud infrastructure
- Security
- Systems management
- Cloud business continuity
- Models & concepts
- Cloud resource management

This course will prepare you for the Cloud+ Certification exam.

Prerequisites: You should be familiar with Hyper-V technology and have 2-3 years of experience working in networking and data center and storage administration.

CTT+ Training and Certification Boot Camp

CTT+ Training and Certification Boot Camp is a three-day instructor-led class aimed at educators and trainers preparing for the CompTIA CTT+ certification. This intensive course covers instructional design, delivery skills, and classroom management strategies to create an engaging learning experience. Participants will practice these skills in preparation for the CTT+ exam and their training roles.

- Master instructional design principles to develop effective and engaging training materials.

- Enhance delivery skills and classroom management techniques to foster a positive learning environment.
- Prepare for the CompTIA CTT+ certification exam with targeted strategies and practice sessions.

There are no prerequisites for this course.

(ISC)²

(ISC)² ® Systems Security Certified Practitioner (SSCP®)

This 5-day instructor-led course provides students with preparation for the (ISC)²® SSCP certification. It covers seven domains

1. Security Operations and Administration
2. Access Controls
3. Risk Identification, Monitoring and Analysis
4. Incident Response and Recovery
5. Cryptography
6. Network and Communications Security
7. Systems and Application Security

Prerequisites: For the SSCP certification, a candidate is required to have a minimum of 1 year of cumulative paid full-time work experience in one or more of the 7 domains of the SSCP CBK. If you do not have the required experience, you may still sit for the exam and become an Associate of (ISC)2 until you have gained the required experience.

(ISC)² ® Certified In Governance, Risk and Compliance (CGRC®)

This 5-day, instructor-led course, formerly known as CAP, is aimed at information systems professionals responsible for making vital security decisions based on risk assessment. It covers seven domains:

1. Information Security Risk Management Program
2. Scope of the Information System
3. Selection and Approval of Security and Privacy Controls
4. Implementation of Security and Privacy Controls
5. Assessment/Audit of Security and Privacy Controls
6. Authorization/Approval of Information Systems
7. Continuous Monitoring

This course will fully prepare you for the (ISC)²® CGRC® Certification exam.

Prerequisites: Before enrolling in the course, you should have at least two years of experience in one or more of the previously listed CGRC® domains. You should also be familiar with NIST documentation.

(ISC)²® Certified Information Systems Security Professional (CISSP®)

This 5-day, instructor-led course is targeted toward managers, engineers, auditors, and security professionals seeking to better their skills and learn about the latest technologies. It covers eight domains:

1. Security and Risk Management
2. Asset Security
3. Security Architecture and Engineering
4. Communication and Network Security
5. Identity and Access Management (IAM)
6. Security Assessment and Testing
7. Security Operations
8. Software Development Security

This course will fully prepare you for the CISSP® Certification exam.

Prerequisites: You must have at least five combined years of professional experience in two or more of the previously listed domains. Additionally, you should be familiar with TCP/IP and the UNIX, Linux and Windows operating systems. Though not required, it is also recommended that you have the CompTIA® Security+ Certification.

(ISC)2 ® CISSP® - Information Systems Security Architecture Professional (CISSP®-ISSAP®)

This 5-day, instructor-led course is directed toward information security professionals such as Chief Security Architects and Analysts who are responsible for designing and developing an overall security strategy. It covers six domains:

1. Architect for Governance, Compliance and Risk Management
2. Security Architecture Modeling
3. Infrastructure Security Architecture
4. Identity and Access Management (IAM) Architecture
5. Architect for Application Security
6. Security Operations Architecture

This course will prepare you for the CISSP®-ISSAP® Certification exam.

Prerequisites: You should have at least two years of professional experience in architecture and have the (ISC)^2® CISSP® Certification.

(ISC)2 ® CISSP® - Information Systems Security Engineering Professional (CISSP®-ISSEP®)

This 5-day, instructor-led course is directed toward systems security engineering professionals in association with the U.S. National Security Agency (NSA). It covers four domains:

1. Systems Security Engineering (SSE)
2. Certification & Accreditation (C&A)/Risk Management Framework (RMF)
3. Technical management
4. U.S. government information assurance-related policies & issuances

This course will prepare you for the CISSP®-ISSEP® Certification exam.

Prerequisites: You should have at least two years of work experience in the field of engineering and have the (ISC)^2® CISSP® Certification.

(ISC)2 ® CISSP® - Information Security Systems Management Professional (CISSP®-ISSMP®)

This 5-day, instructor-led course is geared toward information security professionals in a managerial position. It concentrates on project and risk management, managing a Business Continuity Planning program and implementing a security awareness program. It covers six domains:

1. Leadership and Business Management
2. Systems Lifecycle Management
3. Risk Management
4. Threat Intelligence and Incident Management
5. Contingency Management
6. Law, Ethics, and Security Compliance Management

This course will fully prepare you for the CISSP®-ISSMP® Certification exam.

Prerequisites: You must have the CISSP® Certification and at least two years of professional experience managing a large, enterprise-wide security model. Though not necessary, it is also recommended that you have the CompTIA® Security+ Certification.

(ISC)^2 ® Certified Cloud Security Professional (CCSP®)

This 4-day, instructor-led course is aimed at IT professionals who are involved with IT architecture, web, and cloud engineering, information security, governance, risk and compliance, or IT auditing. It covers six domains:

1. Cloud Concepts, Architecture and Design
2. Cloud Data Security
3. Cloud Platform & Infrastructure Security
4. Cloud Application Security
5. Cloud Security Operations
6. Legal, Risk & Compliance

This course will fully prepare you for the (ISC)^2® CCSP® Certification exam.

Prerequisites: Before enrolling in the course, you should have at least five years of experience in information technology, of which 3 years were in information security and one year in one or more of the six domains of the CCSP CBK.

(ISC)2 ® Certified Secure Software Lifecycle Professional (CSSLP)

This 5-day, instructor-led course is aimed at software development lifecycle professionals who are responsible for application security. It covers eight domains:

1. Secure Software Concepts
2. Secure Software Lifecycle Management
3. Secure Software Requirements
4. Secure Software Architecture and Design
5. Secure Software Implementation
6. Secure Software Testing
7. Secure Software Deployment, Operations, Maintenance
8. Secure Software Supply Chain

This course will fully prepare you for the (ISC)^2® CSSLP® Certification exam.

Prerequisites: Before enrolling in the course, you should have at least four years of experience in Software Development Lifecycle (SDLC) professional work in one or more of the 8 domains of the CSSLP CBK.

CISCO

ASCCX: Advanced Scripting for Cisco Unified Contact Center Express v11.0

- This 5-day instructor-led training and certification boot camp builds on the knowledge base and scripting experience learned in the UCCXD class. Students will use advanced scripting to implement features that extend the functionality of Cisco Unified CCX using many of the tools that are already available in the premium version of the product. After taking this course, students will be able to:
- Review Cisco Unified CCX environment components
- Create prompt recording tools
- Create a helpdesk script
- Apply common sense principles for scripting and system management, such as:
- Prompt, document, and grammar management
- Using the default script

- Scripting for proper call termination and ending a script
- Abandon rates
- Exception handling
- Check Agent Availability before and after entering the queue
- Using Java Methods for Holiday and Time of Day routing
- Setup access and use an external database
- Define and use skills
- Script for conditional routing
- Script for basic callback scenarios
- Setup and use enterprise data and session management
- Script for queuing and scheduled callback scenarios

Prerequisites: Students taking this course should have completed the Administering Cisco Unified Communications course or have equivalent UCCX experience.

BGP: Configuring BGP on Cisco Routers v4.0

This 5-day instructor-led course provides students with in-depth knowledge of Border Gateway Protocol (BGP), the routing protocol that is one of the foundations of the Internet and New World technologies such as Multiprotocol Label Switching (MPLS). This curriculum covers the theory of BGP, configuration of BGP on Cisco IOS routers, detailed troubleshooting information, and hands-on exercises that provide learners with the skills that they need to configure and troubleshoot BGP networks in customer environments. Different service solutions in the curriculum cover BGP network design issues and usage rules for various BGP features, preparing learners to design and implement efficient, optimal, and trouble-free BGP networks. Students who complete this course will be able to:

- Describe how to configure, monitor, and troubleshoot basic BGP to enable interdomain routing in a network scenario with multiple domains
- Describe how to use BGP policy controls to influence the BGP route selection process in a network scenario In which you must support connections to multiple ISPs
- Describe how to use BGP attributes to influence the route selection process in a network scenario where you must support multiple connections
- Describe how to successfully connect the customer network to the Internet in a network scenario in which multiple connections must be implemented
- Describe how to configure the service provider network to behave as a transit AS in a typical implementation with multiple BGP connections to other autonomous systems
- Enable route reflection as a possible solution to BGP scaling issues in a typical service provider network with multiple BGP connections to other autonomous systems
- Describe the available BGP tools and features to optimize the scalability of the BGP routing protocol in a typical BGP network

Prerequisites: Students taking this course should have intermediate to advanced knowledge of Cisco IOS Software configuration and know how to configure and troubleshoot RIP, EIGRP, OSPF, and IS-IS. They should have skills and knowledge equivalent to those learned in:

- Interconnecting Cisco Networking Devices v2.0, Part 1 (ICND1 v2.0) and Part 2 (ICND2 v2.0), or
- Interconnecting Cisco Networking Devices: Accelerated Version 2.0 (CCNAX v2.0)
- Implementing Cisco IP Routing (ROUTE v2.0)
- Building Cisco Service Provider Next-Generation Networks Part 1 (SPNGN1) v1.2
- Building Cisco Service Provider Next-Generation Networks Part 2 (SPNGN2) v1.2

CBRCOR: CyberOps Using Cisco Security Technologies v1.0

This 5-day instructor-led course guides you through cybersecurity operations fundamentals, methods, and automation. The knowledge you gain in this course will prepare you for the role of Information Security Analyst on a Security Operations Center (SOC) team. You will learn foundational concepts and their application in real-world scenarios, and how to leverage playbooks in formulating an Incident Response (IR). The course teaches you how to use automation for security using cloud platforms and a SecDevOps methodology; it also earns you 40 Continuing Education (CE) credits towards recertification and prepares you for the 350-201 CBRCOR core exam. At the completion of this course, participants will be able to:

- Describe the types of service coverage within a SOC and the operational responsibilities associated with each.
- Compare security operations considerations of cloud platforms.
- Describe the general methodologies of SOC platform development, management, and automation.
- Explain asset segmentation, segregation, network segmentation, micro-segmentation, and approaches to each as part of asset controls and protections.
- Describe Zero Trust and associated approaches as part of asset controls and protections.
- Perform incident investigations using Security Information and Event Management (SIEM) and/or security orchestration and automation (SOAR) in the SOC.
- Use different types of core security technology platforms for security monitoring, investigation, and response.
- Describe the DevOps and SecDevOps processes.
- Explain the common data formats, for example, JavaScript Object Notation (JSON), HTML, XML, and Comma-Separated Values (CSV).
- Describe API authentication mechanisms.
- Analyze the approach and strategies of threat detection during monitoring, investigation, and response.
- Determine known Indicators of Compromise (IOCs) and Indicators of Attack (IOAs).
- Interpret the sequence of events during an attack based on analysis of traffic patterns.
- Describe the different security tools and their limitations for network analysis (for example, packet capture tools, traffic analysis tools, and network log analysis tools).
- Analyze anomalous user and entity behavior (UEBA).
- Perform proactive threat hunting following best practices.

Prerequisites: While there are no mandatory prerequisites for this class, students should have familiarity with Linux shells, basic Splunk functions, and scripting using languages such as Python or JavaScript.

CBROPS: Understanding Cisco Cybersecurity Operations Fundamentals

This 5-day instructor-led course teaches an understanding of the network infrastructure devices, operations, and vulnerabilities of the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite. You will learn basic information about security concepts, common network application operations and attacks, the Windows and Linux operating systems, and the types of data used to investigate security incidents. After completing this course, you will have the basic knowledge required to perform the job role of an associate-level cybersecurity analyst in a threat-centric security operations center to strengthen network protocol, protect your devices, and increase operational efficiency. This course prepares you for the Cisco Certified CyberOps Associate certification. This course will help you:

- Learn the fundamental skills, techniques, technologies, and hands-on practice necessary to prevent and defend against cyberattacks as part of a SOC team
- Prepare for the 200-201 Understanding Cisco Cybersecurity Operations Fundamentals (CBROPS) exam, which earns the Cisco Certified CyberOps Associate certification
- Earn 30 Continuing Education Credits toward recertification

Prerequisites: Students taking this course should be familiar with Ethernet, TCP/IP networking, and the basic use of Windows and Linux operating systems.

CCNAX: Cisco Certified Network Associate: Accelerated Routing and Switching

Our accelerated 5-day, instructor-led course is intended for IT networking professionals who are responsible for medium-sized switched and routed networks. It will teach you:

- How to troubleshoot network problems
- Configure all parts of a network
- How to implement WAN connections
- How to maintain network security
- Internet Protocol (IP)
- Serial Line Interface Protocol Frame Relay
- Enhanced Interior Gateway Routing Protocol (EIGRP)
- Routing Information Protocol Version 2 (RIPv2)
- Access control lists (ACLs)
- Ethernet
- VLANs

This course will prepare you for the CCNA® Certification exam.

Prerequisites: You must have the CCENT Certification before taking this course.

CLACCM: Implementing Cisco Advanced Call Control and Mobility Services

CLACCM Implementing Cisco Advanced Call Control and Mobility Services is a five-day instructor-led class for professionals looking to master the skills necessary to implement Cisco Call Control and Mobility Services. The course provides detailed instruction on Cisco Unified Communications Manager (CUCM), Cisco Unified Mobility, and Cisco Unified Border Element (CUBE). Attendees will gain the hands-on experience needed to deploy advanced call control features and mobility services in complex enterprise environments.

- Master the configuration and deployment of Cisco Unified Communications Manager for advanced call control.
- Implement Cisco Unified Mobility solutions to support mobile and remote workers effectively.
- Gain practical experience with Cisco Unified Border Element for secure and efficient voice and video communications.

There are no formal prerequisites for this course; however, students should have an understanding of networking, voice, video, PTSN, and VoIP technologies. They should also be familiar with the Cisco IOS command line and CUCM.

CLACE: Administrating Collaboration Environments

This 5-day instructor-led course, formerly known as CMA v11.0, introduces students to the CUCM system, the necessary procedures for administering IP Phones and Users, understanding the Dial Plan, and implementing Features. The course also covers Jabber administration and Cisco Unity Connection administration features, options, and configuration settings. While the CUCM and CUC software used in the class is version 12.5.1, the course material applies to versions 8.x, 9.x, 10.x, 11.x, or 12.x of the applications. The concepts and the lab tasks are the same for most of the software versions. At the completion of this course, participants will be able to:

- Demonstrate an overall understanding of the Cisco Unified Communications Manager (CUCM) system and its environment
- Configure CUCM to support IP Phones
- Configure Cisco Unified Communications Manager and IM&Presence to support Cisco Jabber soft client. Configure CUCM to route calls to internal and PSTN destinations
- Configure User accounts and multi-level administration
- Demonstrate the use of Self Care Portal functionality
- Configure user features, including Hunt Groups, Call Pickup, and Call Park.
- Define the capabilities of and demonstrate the Bulk Administration Tool
- Define the SMART Licensing model for Cisco Unified Communications
- Demonstrate the use of the Unified Reporting tool
- Demonstrate the use of the Dialed Number Analyzer
- Explain the function of Cisco Unity Connection and the various interfaces that are used to access the system
- Describe the components that are required for user call processing by Cisco Unity Connection
- Implement the various features and options that are available to users in Cisco Unity Connection

- Explore Cisco Unity Connection version features and functions
- Use the various applications, tools, and reports that are available in Cisco Unity Connection

Prerequisites: Students taking this course should have a basic understanding of telephony concepts, PSTN technologies, and traditional digital PBX systems.

CLCOR: Implementing and Operating Cisco Collaboration Core Technologies

This 5-day instructor-led training and certification boot camp helps you prepare for the Cisco CCNP Collaboration and CCIE Collaboration certifications and advanced-level roles focused on the implementation and operation of Cisco collaboration solutions. You will gain the knowledge and skills needed to implement and deploy core collaboration and networking technologies, including infrastructure and design, protocols, codecs, and endpoints, Cisco IOS XE gateway and media resources, Call Control, QoS, and additional Cisco collaboration applications. The exam will be available beginning February 24, 2020. This class will teach you how to:

- Describe the Cisco Collaboration solutions architecture.
- Compare the IP Phone signaling protocols of SIP, H323, MGCP, and SCCP.
- Integrate and troubleshoot Cisco Unified Communications Manager with LDAP for user synchronization and user authentication.
- Implement Cisco Unified Communications Manager provisioning features.
- Describe the different codecs and how they are used to transform analogue voice into digital streams.
- Describe a dial plan, and explain call routing in Cisco Unified Communications Manager.
- Implement PSTN access using MGCP gateways.
- Implement a Cisco gateway for PSTN access.
- Configure calling privileges in Cisco Unified Communications Manager.
- Implement toll fraud prevention.
- Implement globalized call routing within a Cisco Unified Communications Manager cluster.
- Implement and troubleshoot media resources in Cisco Unified Communications Manager.
- Describe Cisco Instant Messaging and Presence, the call flows, and the protocols.
- Describe and configure endpoints and commonly required features.
- Configure and troubleshoot Cisco Unity Connection integration.
- Configure and troubleshoot Cisco Unity Connection call handlers.
- Describe how MRA is used to allow endpoints to work from outside the company.
- Analyze traffic patterns and quality issues in converged IP networks supporting voice, video, and data traffic.
- Define QoS and its models.
- Implement classification and marking.
- Configure classification and marking options on Cisco Catalyst switches.

Prerequisites: Students taking this course should be familiar with the underlying concepts and terminology of computer networking, digital interfaces, PSTN technology, VoIP, converged voice and data networks, and Cisco Unified Communication Manager deployment.

CLFNDU: Understanding Cisco Collaboration Foundations

This 5-day instructor-led training and certification boot camp gives you the skills and knowledge needed to administer and support a simple, single-site Cisco Unified Communications Manager (CM) solution with Session Initiation Protocol (SIP) gateway. The course covers initial parameters, management of devices including phones and video endpoints, management of users, and management of media resources, as well as Cisco Unified Communications solutions maintenance and troubleshooting tools. In addition, you will learn the basics of SIP dial plans, including connectivity to Public Switched Telephone Network (PSTN) services and how to use class-of-service capabilities. This course provides the fundamental knowledge needed to take CCNP® Collaboration certification courses. It also serves as entry-level training for newcomers to Cisco on-premise collaboration technologies. This course will teach you to:

- Define collaboration and describe the main purpose of key devices in a Cisco collaboration on-premise, hybrid, and cloud deployment model
- Configure and modify required parameters in Cisco Unified Communications Manager (CM), including service activation, enterprise parameters, CM groups, time settings, and device pool
- Deploy and troubleshoot IP phones via auto registration and manual configuration within Cisco Unified CM
- Describe the call setup and teardown process for a SIP device, including codec negotiation using Session Description Protocol (SDP) and media channel setup
- Manage Cisco Unified CM user accounts (local and via Lightweight Directory Access Protocol [LDAP]), including the role/group, service profile, UC service, and credential policy
- Configure dial plan elements within a single site Cisco Unified CM deployment, including Route Groups, Local Route Group, Route Lists, Route Patterns, Translation Patterns, Transforms, SIP Trunks, and SIP Route Patterns
- Configure Class of Control on Cisco Unified CM to control which devices and lines have access to services
- Configure Cisco Unified CM for Cisco Jabber and implement common endpoint features, including call park, softkeys, shared lines, and pickup groups
- Deploy a simple SIP dial plan on a Cisco Integrated Service Routers (ISR) gateway to enable access to the PSTN network
- Manage Cisco UCM access to media resources available within Cisco UCM and Cisco ISR gateways
- Describe tools for reporting and maintenance, including Unified Reports, Cisco Real-Time Monitoring Tool (RTMT), Disaster Recovery System (DRS), and Call Detail Records (CDRs) within Cisco Unified CM
- Describe additional considerations for deploying video endpoints in Cisco Unified CM
- Describe the integration of Cisco Unity® with Cisco Unified CM and the default call handler

Prerequisites: There are no specific Cisco prerequisites for this course; however, students should have a working knowledge of computers, web browsers, and the Cisco IOS command line.

DCACI: Implementing Cisco ACI (Application Centric Infrastructure)

This 5-day instructor-led training and certification boot camp shows you how to deploy and manage the Cisco® Nexus® 9000 Series Switches in Cisco Application Centric Infrastructure (Cisco ACI®) mode. The course gives you the knowledge and skills to configure and manage Cisco Nexus 9000 Series Switches in ACI mode, how to connect the Cisco ACI fabric to external networks and services, and the fundamentals of Virtual Machine Manager (VMM) integration. You will gain hands-on practice implementing key capabilities such as fabric discovery, policies, connectivity, VMM integration, and more. This course helps you prepare to take the exam, Implementing Cisco Application Centric Infrastructure (300-620 DCACI), which leads to CCNP® Data Center and Cisco Certified Specialist – Data Center ACI Implementation certifications. After taking this course, you should be able to:

- Describe Cisco ACI Fabric Infrastructure and basic Cisco ACI concepts
- Describe Cisco ACI policy model logical constructs
- Describe Cisco ACI basic packet forwarding
- Describe external network connectivity
- Describe VMM Integration
- Describe Layer 4 to Layer 7 integrations
- Explain Cisco ACI management features

Prerequisites: While there are no mandatory prerequisites for this class, students should have familiarity with networking protocols, routing, switching, Cisco data center products, and virtualization fundamentals.

DCCOR: Implementing and Operating Cisco Data Center Core Technologies

DCCOR Implementing and Operating Cisco Data Center Core Technologies is a five-day instructor-led class that provides an in-depth study of core data center technologies. Participants will learn how to implement and manage data center networking, compute, storage network, automation, and security. This course is designed for professionals seeking to advance their knowledge and skills in modern data center infrastructures.

- Master the implementation and management of data center networking and compute technologies.

- Gain knowledge in storage network, automation, and security within data center environments.
- Prepare for advanced roles in managing and optimizing modern data center infrastructures.

DCID: Designing Cisco Data Center Infrastructure

This 5-day instructor-led training and certification boot camp helps you master design and deployment options focused on Cisco® data center solutions and technologies across network, compute, virtualization, storage area networks, automation, and security. It will teach you how to:

- Design practices for the Cisco Unified Computing System™ (Cisco UCS®) solution based on Cisco UCS B-Series and C-Series servers, Cisco UCS Manager, and Cisco Unified Fabric
- Design experience with network management technologies, including Cisco UCS Manager, Cisco Data Center Network Manager (DCNM), and Cisco UCS Director.

Prerequisites: Students taking this course should be able to implement data center networking technologies, including LAN, SAN, virtualization, automation, and orchestration, and should be able to implement Cisco UCS, US Director, and ACI. Helpful prior certifications include DCFNDU, CCNA, and DCCOR.

DCMDS: Configuring Cisco MDS 9000 Series Switches v1.0

This 5-day, instructor-led course is directed toward IT professionals in the field of systems engineering. It will walk you through the fundamental skill set necessary for the MDS 9000 Series configuration. Topics include:

- Setting up the switch
- Interface configuration
- VSANs
- Domains
- Zones

Prerequisites: Before enrolling in this course, you should have experience with network protocols like Ethernet and IP and understand data storage hardware components and protocols, including SCSI and Fibre Channel. It is also recommended that you have CCNA Certification.

DCNX5K: Configuring Cisco Nexus 5000 Switches v2.1

This 5-day, instructor-led course is aimed at IT professionals in the field of systems engineering. It focuses on the installation, configuration, management, and troubleshooting of Cisco Nexus 5000 switches as they apply to SAN, LAN, and unified fabric environments. It covers:

- Cisco Data Center architecture
- Cisco Data Canter infrastructure – NX-OS
- Data Center virtualization
- Storage networking
- Application networking services – ANS
- Cisco unified computing

This course will help prepare you for the CCIE Data Center Certification exam.

Prerequisites: Before enrolling in this course, you should have the CCNA® Certification and a strong understanding of networking protocols.

DCUCI: Implementing Cisco Data Center Unified Computing v5.0

This 5-day, instructor-led course is directed toward IT professionals in the field of networking and systems administration. It covers techniques for managing, maintaining, and troubleshooting a Cisco Unified Computing System (UCS). It focuses on:

- UCS C-Series rack servers
- Cisco UCS B-Series management & connectivity

- Provisioning resources for Cisco UCS
- Implementing virtualization features in the Cisco UCS server

This course will prepare you for the DCUCI Certification exam, one of two certifications needed for the CCNP® Data Center Certification.

Prerequisites: Before taking this course, you should be familiar with the CCNA® Data Center; server OS, hypervisor, and virtualization; and the implementation of Cisco Storage Networking Solutions (ICSNS)

DCUCT: Troubleshooting Cisco Data Center Unified Computing v5.1

This 4-day, instructor-led course is targeted toward systems engineering professionals. It covers the troubleshooting of UCS B-Series and C-Series servers. It focuses on:

- Cisco UCS B-Series troubleshooting techniques
- Cisco UCS C-Series standalone serves troubleshooting techniques
- Integration techniques for UCS C-Series

This course will prepare you for the DCUCT exam, one elective necessary for the CCNP® Certification.

Prerequisites: Before enrolling in this course, you should understand Internetworking Fundamentals and experience with DCUCI.

DCUFI: Implementing Cisco Data Center Unified Fabric v5.0

This 5-day, instructor-led course is aimed at IT professionals in the field of systems engineering. It covers the key techniques needed to effectively install, configure, and maintain Cisco Nexus Series 7000, 5000, 2000, and MDS switches. It focuses on:

- UCS C-Series rack services
- Cisco UCS B-Series management
- UCS B-Series connectivity
- Provisioning resources for Cisco UCS
- Implementing virtualization features in Cisco UCS server

This course will prepare you for the DCUFI Certification exam, one of two needed for the CCNP® Certification.

Prerequisites: Before taking this course, you should be familiar with the CCNA® Data Center Certification, Fibre Channel Protocol and SAN environment, and the implementation of Cisco Storage Network Solutions (ICSNS).

DEVASC: Developing Applications and Automating Workflows Using Cisco Core Platforms

DEVASC Developing Applications and Automating Workflows Using Cisco Core Platforms is a five-day instructor-led class focused on the development and automation skills required for working with Cisco technologies. Participants will learn to develop applications and automate workflows to optimize operations within Cisco environments. The course emphasizes hands-on practice and real-world applications.

- Develop skills in application development and workflow automation within Cisco platforms.
- Gain hands-on experience in integrating and automating operations in Cisco environments.
- Apply practical knowledge to optimize processes and increase efficiency in technological operations.

Prerequisites: While this course has no formal requirements, students should have hands-on experience with Python programming.

DEVCOR: Developing Applications Using Cisco Core Platforms and APIs

This 5-day instructor-led training and certification boot camp helps you prepare for the Cisco DevNet Professional certification. It will teach you how to:

- Describe the architectural traits and patterns that improve application maintainability
- Describe the architectural traits and patterns that improve application serviceability
- Identify steps to design and build a ChatOps application
- Implement robust Representational State Transfer (REST) API integrations with network error handling, pagination, and error flow control
- Describe the necessary steps for securing user and system data in applications
- Describe the necessary steps for securing applications
- Identify common tasks in automated application release process
- Describe best practices for application deployment
- Describe methodologies for designing distributed systems
- Describe the concepts of infrastructure configuration management and device automation
- Utilize Yet Another Next Generation (YANG) data models to describe network configurations and telemetry
- Compare various relational and nonrelational database types and how to select the appropriate type based on requirements

Prerequisites: While there are no mandatory prerequisites for this class, students should have familiarity with Ethernet, TCP/IP networks, the principles of APIs and software development methodologies, and experience with Python program design and coding.

ENARSI: Implementing Cisco Enterprise Advanced Routing and Services

This 5-day instructor-led training and certification boot camp gives you the knowledge you need to install, configure, operate, and troubleshoot an enterprise network. This course covers advanced routing and infrastructure technologies, expanding on the topics covered in the Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR) v1.0 course. It will teach you to do the following:

- Configure classic EIGRP and named EIGRP for IPv4 and IPv6
- Optimize classic EIGRP and named EIGRP for IPv4 and IPv6
- Troubleshoot classic EIGRP and named EIGRP for IPv4 and IPv6 Configure OSPFv2 and OSPFv3 in IPv4 and IPv6 environments
- Optimize OSPFv2 and OSPFv3 behavior
- Troubleshoot OSPFv2 for IPv4 and OSPFv3 for IPv4 and IPv6
- Implement route redistribution using filtering mechanisms
- Troubleshoot redistribution
- Implement path control using PBR and IP SLA
- Configure MP-BGP in IPv4 and IPv6 environments
- Optimize MP-BGP in IPv4 and IPv6 environments
- Troubleshoot MP-BGP for IPv4 and IPv6
- Describe the features of MPLS
- Describe the major architectural components of an MPLS VPN
- Identify the routing and packet forwarding functionalities for MPLS VPNs
- Explain how packets are forwarded in an MPLS VPN environment
- Implement Cisco IOS DMVPNs
- Implement DHCP
- Describe the tools available to secure the IPV6 first hop
- Troubleshoot Cisco router security features
- Troubleshoot infrastructure security and services

Prerequisites: While there are no mandatory prerequisites for this class, students should have familiarity with network fundamentals, LAN implementation, managing and securing network devices, and basic network automation technologies.

ENAUI: Implementing Automation for Cisco Enterprise Solutions

This 3-day instructor-led training and certification boot camp teaches you how to integrate programmability and automation in the Cisco-powered Enterprise Campus and Wide Area Network (WAN) using programming concepts, orchestration, telemetry, and automation tools to create more efficient workflows and more agile networks. It will teach you how to do the following:

- Describe the various models and APIs of the Cisco IOS-XE platform to perform Day 0 operations, improve troubleshooting methodologies with custom tools, augment the Command-Line Interface (CLI) using scripts, and integrate various workflows using Ansible and Python
- Explain the paradigm shift of model-driven telemetry and the building blocks of a working solution
- Control the tools and APIs to automate Cisco DNA infrastructure managed by Cisco DNA Center™
- Demonstrate workflows (configuration, verification, health checking, and monitoring) using Python, Ansible, and Postman
- Explain Cisco SD-WAN solution components, implement a Python library that works with the Cisco SD-WAN APIs to perform configuration, inventory management, and monitoring tasks, and implement reusable Ansible roles to automate provisioning new branch sites on an existing Cisco SD-WAN infrastructure
- Manage the tools and APIs to automate Cisco Meraki managed infrastructure and demonstrate workflows (configuration, verification, health checking, monitoring) using Python, Ansible, and Postman

Prerequisites: While there are no mandatory prerequisites for this class, students should have CCNP-level core networking knowledge as well as a basic understanding of Cisco DNA, Cisco SD-WAN, and Meraci. They should also understand the basic concepts of programming languages and virtualization and have a working knowledge of Linux and CLI tools such as bash and SSH.

ENCOR: Implementing and Operating Cisco Enterprise Network Core Technologies

This 5-day instructor-led training and certification boot camp gives you the knowledge and skills needed to configure, troubleshoot, and manage enterprise wired and wireless networks. You'll also learn to implement security principles within an enterprise network and how to overlay network design by using solutions such as SD-Access and SD-WAN. It will teach you to do the following:

- Illustrate the hierarchical network design model and architecture using the access, distribution, and core layers
- Compare and contrast the various hardware and software switching mechanisms and operation
- Implement and troubleshoot Layer 2 network technologies such as VLAN, STP, and EtherChannel
- Implement and optimize routing protocols such as EIGRP, OSPFv2, OSPFv3, and EBGP
- Describe the features, metrics, and path selection concepts of Enhanced Interior Gateway Routing Protocol (EIGRP)
- Implement and optimize routing via OSPFv2, OSPFv3, and EBGP
- Implement network redundancy via HSRP and VRRP
- Implement internet connectivity using static and dynamic Network Address Translation (NAT)
- Describe the virtualization technology of servers, switches, and the various network devices and components
- Implement overlay technologies such as VRF, GRE, VPN, and LISP
- Describe the components and concepts of wireless networking, including physical characteristics, wireless standards, AP deployment models and roaming and location services
- Implement and troubleshoot wireless connectivity and security
- Troubleshoot networks using standard services such as NTP, SNMP, Netflow, and Cisco IOS.
- Configure secure administrative access for Cisco IOS devices and implement scalable AAA solutions.
- Describe the purpose and function of enterprise network security architecture
- Explain the purpose, function, features, workflow, and APIs of Cisco DNA Center™
- Describe the components and features of the Cisco SD-Access and SD-WAN solutions
- Describe the concepts, purpose, and features of multicast protocols such as IGMP and PIM
- Describe the concepts and features of Quality of Service (QoS), and describe the need within the enterprise network
- Explain basic Python components and conditionals with script writing and analysis
- Describe network programmability protocols such as Network Configuration Protocol (NETCONF) and RESTCONF

Prerequisites: While there are no mandatory prerequisites for this class, students should be familiar with the implementation of enterprise LAN networks and have a basic understanding of routing, wireless connectivity, and Python scripting.

ENSLD: Designing Cisco Enterprise Networks

This 5-day instructor-led training and certification boot camp serves as a deep dive into enterprise network design and expands on the topics covered in the Implementing and Operating Cisco® Enterprise Network Core Technologies (ENCOR) v1.0 course. It will teach you to

- Design networks based on customer requirements
- Design internal routing in the enterprise network using EIGRP, OSPF, and IS-IS
- Design BGP routing for the enterprise network
- Describe Layer 2 and Layer 3 design considerations for Enterprise Campus networks, and decide where the boundaries will be between the two
- Design service provider and enterprise-managed VPNs
- Design resilient WAN and SD-WAN networks
- Design QoS for enterprise networks and WANss
- Plan IPv6 deployment in an existing IPv4 network
- Describe network APIs and configuration protocols

Prerequisites: Students taking this course should have earned CCNA network certification or have equivalent knowledge.

ENWLSD: Designing Cisco Enterprise Wireless Networks

This 5-day instructor-led training and certification boot camp covers design specifics from scenario design concepts through the installation phase and into post-deployment validation. It will teach you to do the following:

- Describe and implement a Cisco-recommended structured design methodology
- Describe and implement industry standards, amendments, certifications, and RFCs
- Describe and implement Cisco enhanced wireless features
- Describe and implement the wireless design process
- Describe and implement specific vertical designs
- Describe and implement site survey processes
- Describe and implement network validation processes

Prerequisites: Students taking this course should have a general knowledge of networks, wireless networks, routing, and switching

ICND1 v2.0: Interconnecting Cisco Networking Devices, Part 1

This 5-day, instructor-led course is geared toward IT networking professionals, and it focuses on developing a practical understanding of TCP/IP networks that are built with Cisco hardware. It covers:

- The basics of routing & switching
- Connecting to a WAN
- TCP/IP & IOS Models
- IP Addressing
- Operating & Configuring IOS Devices
- Configuring RIPv2
- Static & Default Routing
- NAT & DHCP

This course will prepare you for the CCENT Certification exam.

Prerequisites: You should have a strong understanding of basic networking concepts before taking this course.

ICND2 v2.0: Interconnecting Cisco Networking Devices, Part 2

This 5-day, instructor-led course is directed toward IT network professionals who work with medium-sized switched and routed networks. It covers:

- VLSM & IPv6 addressing
- Extending switch networks with VLANs
- Determining IP routes
- Managing IP traffic with access lists
- Establishing point-to-point connections

This course builds on the concepts learned in ICND1 to prepare you for the CCNA® Certification.

Prerequisites: You must have successfully completed the ICND1 course before enrollment. You should also have hands-on experience with Cisco routers and switches, a strong understanding of networking, and a firm grasp of the OSI model, IP subnetting, and IP addressing.

IINS: Implementing Cisco IOS Network Security

Formerly known as the CCNA® Security Certification, this 5-day, instructor-led course is directed toward IT networking professionals. It covers:

- AAA on Cisco devices
- Cisco firewall technologies
- Cisco IPS
- Layer 2 attacks
- Common security threats
- IOS ACLs
- Secure network management & reporting
- Security on Cisco routers
- VPN technologies

This course will prepare you for the CCNA® Security Certification exam.

Prerequisites: Before taking this course, you should be familiar with the concepts covered in Cisco ICND 1, have knowledge of Cisco IOS networking, and can work with a Windows operating system. Cisco recommends having either the CCENT or CCNA® Routing and Switching certifications.

IUWNE: Implementing Cisco Unified Wireless Networking Essentials v2.0

This 5-day, instructor-led course is directed toward IT networking professionals, and it will teach you how to design, install, configure, monitor, and troubleshoot Cisco wireless LAN networks. It covers:

- WLAN fundamentals
- Wireless Client installation
- Basic Cisco wireless LAN installation
- Basic WLAN security implementation
- WLAN maintenance & troubleshooting
- Operating basic WCS

This course will prepare you for the CCNA® Wireless Certification exam.

Prerequisites: Before enrolling in this course, you should have the CCENT Certification.

ROUTE: Implementing Cisco IP Routing v1.0

This 5-day, instructor-led course is directed toward IT professionals responsible for implementing, configuring, and verifying routing protocols within their organization. It covers:

- Scalability for Cisco routers connected to LANs & WANs

- EIGRP & OSPF techniques
- IPv6 based solutions
- Implementing Layer 3 Path Control solution

This course will prepare you for the ROUTE Certification exam, one of three parts needed to attain the CCNP® Certification.

Prerequisites: Before taking this course, you must have the CCNA® Routing and Switching Certification. You should also have at least one year of professional networking experience, knowledge of IP and internetworking technologies, and experience with the installation and maintenance procedures for Cisco routers and switches.

SCOR: Implementing and Operating Cisco Security Core Technologies

This 5-day instructor-led course helps you prepare for the Cisco CCNP Security and CCIE Security certifications and for senior-level security roles. In this course, you will master the skills and technologies you need to implement core Cisco security solutions to provide advanced threat protection against cybersecurity attacks. You will learn security for networks, cloud and content, endpoint protection, secure network access, visibility, and enforcement. You will get extensive hands-on experience deploying Cisco Firepower Next-Generation Firewall and Cisco ASA Firewall; configuring access control policies, mail policies, and 802.1X Authentication; and more. You will get introductory practice on Cisco Stealthwatch Enterprise and Cisco Stealthwatch Cloud threat detection features. After taking this course, you should be able to:

- Describe information security concepts and strategies within the network
- Describe common TCP/IP, network application, and endpoint attacks
- Describe how various network security technologies work together to guard against attacks
- Implement access control on Cisco ASA appliance and Cisco Firepower Next-Generation Firewall
- Describe and implement basic email content security features and functions provided by Cisco Email Security Appliance
- Describe and implement web content security features and functions provided by Cisco Web Security Appliance
- Describe Cisco Umbrella security capabilities, deployment models, policy management, and Investigate console
- Introduce VPNs and describe cryptography solutions and algorithms
- Describe Cisco secure site-to-site connectivity solutions and explain how to deploy Cisco IOS VTI-based point-to-point IPsec VPNs and point-to-point IPsec VPN on the Cisco ASA and Cisco FirePower NGFW
- Describe and deploy Cisco secure remote access connectivity solutions and describe how to configure 802.1X and EAP authentication
- Provide a basic understanding of endpoint security and describe AMP for Endpoints architecture and basic features
- Examine various defenses on Cisco devices that protect the control and management planes
- Configure and verify Cisco IOS Software Layer 2 and Layer 3 Data Plane Controls
- Describe Cisco Stealthwatch Enterprise and Stealthwatch Cloud solutions
- Describe basics of cloud computing and common cloud attacks and how to secure cloud environment

Prerequisites: While there are no formal prerequisites for this course, students should have completed the CCNA course or have equivalent knowledge.

SWITCH: Implementing Cisco IP Switched Networks v1.0

This 5-day, instructor-led course is aimed at IT professionals responsible for handling complex switched and routed networks. It covers:

- High availability implementation
- Security extension implementation of a Layer 2 solution
- Implementing VLAN-based solutions
- Cisco Campus Enterprise Architecture
- Secure integration of VLANs, WLANs, voice & video traffic into networks

This course will prepare you for the SWITCH Certification exam, one of three parts needed to attain the CCNP® Certification.

Prerequisites: You should have at least one year of networking experience before enrolling in this course. You should also have the CCNA® Certification or equivalent knowledge.

TSHOOT: Troubleshooting and Maintaining Cisco IP Networks v1.0

This 5-day, instructor-led course is directed toward IT networking professionals responsible for maintaining medium- to large-sized networks. It will teach you how to:

- Perform maintenance on complicated enterprise-routed & switched networks
- Monitor & maintain network performance
- Use a multi-protocol system for network troubleshooting

This course will prepare you for the TSHOOT Certification exam, one of three parts needed to attain the CCNP® Certification.
Prerequisites: Before enrolling in this course, you should have the CCNA® Certification and an understanding of internetworking technologies. You should also know how to install, configure, and maintain Cisco routers and switches.

VIVND: Implementing Cisco Video Network Devices

This 5-day, instructor-led course is geared toward IT professionals such as Systems Administrators and Field Engineers. It covers:

- Endpoint configuration
- Conferencing concepts
- Components & bed practices of videoconferencing
- Environmental requirements
- Troubleshooting & support

This course will prepare you for the CCNA® Video Certification exam.

Prerequisites: You should be familiar with basic IP networking and CCENT® and CCNA® certifications.

VPN: Deploying Cisco ASA VPN Solutions v2.0

This 5-day, instructor-led course is geared toward Network engineers responsible for implementing and maintaining the VPN features of a Cisco adaptive security appliance (ASA). This course will prepare you for the 642-648 VPN exam It covers:

- Common Cisco ASA Adaptive Security Appliance VPN configuration components
- ASA EZVPN
- ASA IP S2S VPN
- Basic EZVPN remote operations on the ASA 5505 using ASDM
- SSL VPN high availability
- ASA clientless SSL VPN

Prerequisites: Before taking this course, you should have the CCNA Routing and Switching and CCNA Security certifications.

ISACA

ISACA® Certified Information Systems Auditor (CISA®)

This 5-day, instructor-led course is directed toward those who audit, control, monitor, and assess a company's IT and business systems. It covers five domains:

1. IS audit process
2. IT governance & management
3. IS acquisition, development & implementation
4. IS operations, maintenance & support
5. Protection of information assets

This course will prepare you for the CISA® Certification exam, held annually in June, September, and December.

Prerequisites: You should have at least five years of professional experience with IT systems, auditing, or IS security. Though not required, it is also recommended that you have the CompTIA® Security+ Certification.

ISACA® Certified Information Security Manager (CISM®)

This 5-day, instructor-led course is directed toward managers in the IT security field. You will learn how to:

- Govern information security
- Develop & manage an IS program
- Respond when incidents arise

After taking this course, you will be prepared to take the CISM® Certification exam, offered annually in June, September, and December.

Prerequisites: Prior to taking this course, you should have at least five years of professional experience in the information security field, three of which were as an information security manager. It may also be helpful to have the CompTIA® Security+ Certification and be familiar with TCP/IP and the Windows, UNIX, and Linux Operating Systems.

ISACA® Certified in Risk and Information Systems Control (CRISC®)

This 3-day, instructor-led course is aimed at IT professionals who wish to build a career in risk management. This course covers five domains:

1. Identification, assessment & evaluation of risk
2. Risk response
3. Monitoring risk
4. Information systems control, design & implementation
5. Information systems control, monitoring & maintenance.

This course will prepare you for the CRISC® Certification exam, held annually in June and December.

Prerequisites: You should have at least three years of work experience performing tasks associated with at least three of the previously listed CRISC® domains.

CLOUDERA COURSES

Cloudera® Certified Administrator for Apache Hadoop (CCAH®)

This 4-day, instructor-led course is intended for systems administrators responsible for Hadoop cluster management. It teaches you how to:

- Build a Hadoop architecture
- Institute proper configuration & deployment of clusters for integration
- Use techniques for loading data
- Use FairScheduler configuration
- Implement Kerberos-based cluster security
- Prepare & maintain Hadoop in production
- Diagnose & troubleshoot issues with Hadoop

This course will prepare you for the CCAH® Certification exam.

Prerequisites: You should have basic knowledge and experience with systems administration working with Linux before taking this course.

Cloudera® Certified Developer for Apache Hadoop (CCDH®)

This 4-day, instructor-led course is directed toward developers responsible for creating applications for big data. It addresses:

- MapReduce
- Hadoop Distributed Files System (HDFS)
- Best practices for debugging Hadoop
- Constructing programs against the API
- Implementing workflows

This course will prepare you for the CCDH® Certification exam.

There are no specific prerequisites for this course. However, you should have some programming experience, particularly in Java, before enrolling.

Cloudera® Certified Specialist in Apache HBase (CCSHB®)

This 4-day, instructor-led course is designed for both network developers and network administrators. It covers:

- Best practices for identifying & resolving performance bottlenecks
- How to deploy & manage Apache HBase
- How to use & manipulate HBase tables
- How to design the most optimal schemes for data storage & recovery
- When to use Hadoop, HBase & RDBMS

This course will prepare you for the CCSHB® Certification exam.

Prerequisites: Before taking this course, you should have the Cloudera® CCDH® Certification as a foundation. It may also be helpful to have experience with Apache Hadoop and Java programming.

Cloudera® Data Analyst: Pig, Hive, and Impala Training

This 3-day, instructor-led course is targeted toward data and business analysts. It teaches you:

- Best practices for managing, manipulating & querying large, complex data
- How to use Apache Pig & Hive
- How to use Impala
- How to identify which tool is most appropriate for various analytic tasks
- How to use SQL & scripting language to access, manipulate & analyze bug data

This course will prepare you for the Data Science Essentials exam.

Prerequisites: Before taking this course, you should be familiar with SQL and basic Linux commands. It may also be helpful to should also have some knowledge of Java and Apache Hadoop.

CWNP

CWNP® Certified Wireless Network Administrator (CWNA)

This 3-day, instructor-led course is aimed at wireless networking professionals. It covers:

- Radio Frequency (RF) technologies
- Network design, installation & management
- Troubleshooting
- 802.11 network architecture
- Wireless LAN hardware, software & security
- Wireless standards & organizations
- Antenna concepts
- How to perform site surveys

This course will prepare you for the CWNA Certification exam.

Prerequisites: You should be familiar with the terminology and concepts associated with the CWTS, CWNP, and CWSP exams before taking this course.

CWNP® Certified Wireless Technology Specialist (CWTS)

This 2-day, instructor-led course is directed toward wireless networking professionals. It covers:

- Wi-Fi technology, certifications & standards
- Software & hardware
- The fundamentals of Radio Frequency (RF)
- Site surveying & installation
- Compliance & security

This course will prepare you for the CWTS Certification exam.

Prerequisites: You should be familiar with the terminology and concepts associated with the CWNA, CWNP, and CWSP exams before taking this course.

ITIL®

ITIL® 4 Foundation

This 3-day, instructor-led course is aimed at all IT professionals, and it will teach you the knowledge and skills needed to manage the many functions of an IT system to deliver the best business practices. This course will prepare you for the ITIL® 4 Foundation exam. On completion of this course, students should have an understanding of

- What ITIL ® is; how it fits into the service management framework; how it has evolved over the years; and about the ITIL ® service value system
- The key concepts of ITIL ® service management and how ITIL ® guiding principles can help an organization to adopt and adapt ITIL ® service management
- The four dimensions of ITIL ® service management
- The purpose and components of the ITIL ® service value system, the ITIL ® guiding principles, and governance
- The activities of the service value chain, how they interconnect, and the key concepts of continual improvement
- The various ITIL ® practices and how they connect to value chain activities

There are no prerequisites for this course. However, it is recommended that you have some basic knowledge and experience in the IT field before enrollment.

ITIL® Leader: Digital and IT Strategy

This 3-day instructor-led training and certification boot camp provides guidance on how to craft a digital vision and shape IT and business strategies. The training is designed for leaders across an organization, including directors, department heads, and aspiring C-Suite professionals. This ITIL training adds a new perspective to the ITIL 4 guidance and elevates the discussion around ITIL concepts to an organizational strategy level. By the end of this course, students will be able to:

- Develop a cross-organizational digital strategy
- Craft a digital vision
- Drive operational excellence
- Respond to digital disruption
- Enable a sustainable business
- Strategically manage risk
- Develop digital leaders for the future

Prerequisites: Participants must have an ITIL 4 Foundation certification.

ITIL® Specialist: Create, Deliver, Support

This 3-day instructor-led course explains design of digital products and services. The course also reviews development, deployment, and monitoring activities. By the end of this course, students will be able to:

- Improve existing processes
- Effectively manage IT teams
- Optimize value streams and workflows
- Align digital services with business strategy
- Improve how services are developed
- Integrate new technologies to embed Lean, Agile, and DevOps ways of working

Prerequisites: Participants must have an ITIL 4 Foundation certification.

ITIL® Specialist: Drive Stakeholder Value

This 3-day instructor-led course covers key topics such as SLA design, multi-supplier management, communication, relationship management CX and UX design, and customer journey mapping. Participants will learn to increase stakeholder satisfaction. By the end of this course, participants will be able to:

- Effectively manage key stakeholders
- Build trusted relationships
- Shape customer demand
- Embed effective design thinking
- Optimize user experience and customer experience

Prerequisites: Participants must have an ITIL 4 Foundation certification.

ITIL® Specialist: High Velocity IT

This 3-day instructor-led certification course explores digital organizations and digital operating models in high-velocity environments. Topics include: Agile and Lean, Cloud, Automation, and Automatic Testing, as well as rapid delivery of products & services to obtain maximum value. By the end of this course, students will be able to:

- Converge business and IT goals
- Recognize and manage complex adaptive systems
- Bridge the development and operations gap
- Improve performance with Lean, Agile, and DevOps
- Increase the speed and quality of services
- Invest in digital tools and techniques to create value

Prerequisites: Participants must have an ITIL 4 Foundation certification.

ITIL® Strategist: Direct, Plan and Improve

This 3-day instructor-led course covers 'IT' areas of work. However, often, these areas have not been built, run and integrated as seamlessly as needed to fully deliver optimum value to the organization. Participants will learn to align team objectives with organizational strategy and embed continuous improvement into the organization's practices. By the end of this course, students will be able to:

- Drive and manage effective organizational change
- Encourage a culture of continual improvement
- Facilitate decision-making
- Support change management
- Minimize disruption
- Innovate while remaining compliant

Prerequisites: Participants must have an ITIL 4 Foundation certification.

MICROSOFT ENTERPRISE

MCSA: Office 365

20347: Enabling Office 365 Services

This 5-day Microsoft course targets the needs of IT professionals who take part in evaluating, planning, deploying, and operating Office 365 services. This course focuses on the skills required to set up an Office 365 tenant. It covers:

- Plan an Office 365 deployment, configure the Office 365 tenant, and plan a pilot deployment
- Manage Office 365 users, groups, and licenses and configure delegated administration
- Plan and configure client connectivity to Office 365
- Plan and configure directory synchronization between Azure AD and on-premises AD DS
- Plan and implement the deployment of Office 365 ProPlus
- Plan and manage Exchange Online recipients and permissions
- Plan and configure Exchange Online services
- Plan and implement the Skype for Business Online deployment
- Plan and configure SharePoint Online
- Plan and configure an Office 365 collaboration solution that includes Yammer Enterprise, OneDrive for Business, and Office 365 groups
- Plan and configure the integration between Office 365 and Azure RMS, and configure compliance features in Office 365
- Monitor and review Office 365 services and troubleshoot Office 365 issues
- Plan and implement identity federation between on-premises AD DS and Azure AD

This course will prepare you for Exam 70-346: Managing Office 365 Identities and Requirements.

Prerequisites: Before taking this course, you should have at least 2 years of experience administering the Windows Operating System.

MCSA: SQL Server 2012/2014

20461: Querying Microsoft SQL Server 2014

This 5-day course dives into the skills for writing basic Transact-SQL queries with SQL Server 2014 for Database Administrators, Developers, and other business intelligence professionals who want to understand fundamental knowledge, tools, and capabilities for querying data. It covers:

- Describe the basic architecture and concepts of Microsoft SQL Server 2014.
- Understand the similarities and differences between Transact-SQL and other computer languages.
- Write SELECT queries
- Query multiple tables
- Sort and filter data
- Describe the use of data types in SQL Server
- Modify data using Transact-SQL
- Use built-in functions
- Group and aggregate data
- Use subqueries
- Use table expressions
- Use set operators
- Use window ranking, offset, and aggregate functions
- Implement pivoting and grouping sets
- Execute stored procedures

- Program with T-SQL
- Implement error handling
- Implement transactions

This course will prepare you for the Exam 70-461: Implementing a Data Warehouse with Microsoft SQL Server 2012/2014.

Prerequisites: Before taking this course, you should have experience with relational databases and MS Windows operating systems.

20462: Administering Microsoft SQL Server 2014 Databases

This 5-day Microsoft course goes into the skills and knowledge for maintaining SQL Server 2014 databases in the enterprise. Students are immersed in material explaining the different tools and capabilities for database management and maintenance. It covers:

- Describe core database administration tasks and tools.
- Install and configure SQL Server 2014.
- Configure SQL Server databases and storage.
- Plan and implement a backup strategy.
- Restore databases from backups.
- Import and export data. Monitor SQL Server.
- Trace SQL Server activity.
- Manage SQL Server security.
- Audit data access and encrypt data.
- Perform ongoing database maintenance.
- Automate SQL Server maintenance with SQL Server Agent Jobs.
- Configure Database Mail, alerts, and notifications.

This course will prepare you for Exam 70-462: Administering Microsoft SQL Server 2012/2014 Databases.

Prerequisites: Before taking this course, you should have experience with MS Windows operating systems, Transact-SQL, relational databases, and database design.

20463: Implementing a Data Warehouse with MS SQL Server

This 5-day Microsoft course benefits data warehouse professionals who want to understand the process for implementing data warehouses for Business Intelligence solutions with Microsoft SQL Server 2014 and additional SQL data services. It covers:

- Describe data warehouse concepts and architecture considerations.
- Select an appropriate hardware platform for a data warehouse.
- Design and implement a data warehouse.
- Implement Data Flow in an SSIS Package.
- Implement Control Flow in an SSIS Package.
- Debug and Troubleshoot SSIS packages.
- Implement an ETL solution that supports incremental data extraction.
- Implement an ETL solution that supports incremental data loading.
- Implement data cleansing by using Microsoft Data Quality Services.
- Implement Master Data Services to enforce data integrity.
- Extend SSIS with custom scripts and components.
- Deploy and Configure SSIS packages.
- Describe how BI solutions can consume data from the data warehouse.

This course will prepare you for the Exam 70-463: Querying Microsoft SQL Server 2012.

Prerequisites: Before taking this course, you should have a minimum of two years of experience with relational databases.

MCSE: Productivity - SharePoint 2016

20339-1: Planning and Administering SharePoint Server 2016

This 5-day Microsoft course will provide the knowledge and skills to plan and administer a Microsoft SharePoint 2016 environment. The course teaches you how to deploy, administer, and troubleshoot your SharePoint environment. This course also provides guidelines, best practices, and considerations that help you optimize your SharePoint deployment. It covers:

- Describe the key features of SharePoint 2016.
- Design an information architecture for a SharePoint 2016 deployment.
- Design a logical architecture for a SharePoint 2016 deployment.
- Design the physical architecture for a SharePoint 2016 deployment.
- Install and configure SharePoint 2016.
- Create and configure web applications and site collections.
- Plan and configure service applications for a SharePoint 2016 deployment.
- Manage users and permissions and secure content in a SharePoint 2016 deployment.
- Configure authentication in a SharePoint 2016 deployment.
- Configure platform and farm-level security in a SharePoint 2016 deployment.
- Manage information taxonomy in SharePoint web applications and site collections.
- Configure and manage user profiles and audiences.
- Configure and manage the search experience in SharePoint 2016.
- Monitor, maintain, and troubleshoot a SharePoint 2016 deployment.

This course will prepare you for the Exam 70-339: Managing Microsoft SharePoint Server 2016.

Prerequisites: Before taking this course, you should have more than one year of hands-on experience planning and maintaining SharePoint or two years of experience with other core technologies on which SharePoint depends, including Windows Server 2012 R2 or later, Internet Information Services (IIS), Microsoft SQL Server 2014 or later, Active Directory Domain Services (AD DS), and networking infrastructure services.

20339-2: Advanced Technologies of SharePoint 2016

This 5-day Microsoft course will provide the knowledge and skills to plan and administer a Microsoft SharePoint 2016 environment. The course teaches you how to deploy, administer, and troubleshoot your SharePoint environment. This course also provides guidelines, best practices, and considerations that help you optimize your SharePoint deployment. It covers:

- Describe the core SharePoint 2016 architecture and its new and improved features.
- Describe the key hybrid features in SharePoint 2016.
- Plan and design a SharePoint 2016 environment to meet requirements for high availability and disaster recovery.
- Plan and implement Business Connectivity Services and Secure Store Service.
- Configure and manage productivity services for a SharePoint 2016 deployment.
- Manage solutions in a SharePoint 2016 deployment.
- Plan and configure social computing features.
- Plan and configure web content management for an Internet-facingAd environment.
- Plan and configure Enterprise Content Management in a SharePoint 2016 deployment.
- Plan and configure business intelligence solutions.
- Plan and configure work management, productivity, and collaboration platforms and features.
- Perform an upgrade or migration to SharePoint 2016.

This course will prepare you for the Exam 70-339: Managing Microsoft SharePoint Server 2016.

Prerequisites: Before taking this course, you should have more than one year of hands-on experience planning and maintaining SharePoint or two years of experience with other core technologies on which SharePoint depends, including Windows Server 2012 R2 or later, Internet Information Services (IIS), Microsoft SQL Server 2014 or later, Active Directory Domain Services (AD DS), and networking infrastructure services.

MCSE: Productivity - Exchange 2016

20345-1: Administering Microsoft Exchange Server 2016

This 5-day Microsoft course teaches IT professionals how to administer and support Exchange Server 2016. Students will learn how to install Exchange Server 2016 and how to configure and manage an Exchange Server environment. The course covers how to manage mail recipients and public folders, including how to perform bulk operations using Exchange Management Shell. Students will also learn how to manage client connectivity, message transport, and hygiene, how to implement and manage highly available Exchange Server deployments, and how to implement backup and disaster recovery solutions. It covers:

- Perform deployment and basic management of Exchange Server 2016.
- Manage Exchange Server 2016.
- Create and manage various recipient objects in Exchange Server 2016.
- Use Exchange Management Shell to create and manage various recipient objects in Exchange Server 2016 and perform various tasks to automate Exchange management procedures.
- Configure client connectivity to Exchange Server 2016 and manage Client Access services.
- Implement and manage high availability.
- Implement backup and disaster recovery for Exchange Server 2016.
- Configure message transport options.
- Configure message hygiene and security options.
- Implement and manage Exchange Online deployments.
- Monitor and troubleshoot Exchange Server 2016.
- Secure and maintain Exchange Server 2016.

This course will prepare you for Exam 70-345: Designing and Deploying Microsoft Exchange Server 2016.

Prerequisites: This course requires two years of experience working in the IT field--typically in the areas of Windows Server administration, network administration, help desk, or system administration.

20345-2: Designing and Deploying Microsoft Exchange Server 2016

This 5-day Microsoft course provides experienced Exchange Server administrators with the knowledge to design and implement an Exchange Server 2016 messaging environment. Students will learn how to design and configure advanced components in an Exchange Server 2016 deployment, such as site resiliency, advanced security, compliance, archiving, and discovery solutions. In addition, students will learn about coexistence with other Exchange organizations or Exchange Online, and migration from previous versions of Exchange Server. The course will provide guidelines, best practices, and considerations that will help students optimize their Exchange Server deployment. It covers:

- Plan for Exchange Server deployments.
- Plan and deploy Exchange Server 2016 Mailbox services.
- Plan and deploy message transport.
- Plan and deploy client access.
- Design and implement high availability.
- Maintain Exchange Server 2016.
- Design messaging security.
- Design and implement message retention.
- Design messaging compliance.
- Design and implement messaging coexistence.
- Upgrade to Exchange Server 2016.
- Plan a hybrid Exchange Server deployment.

This course will prepare you for Exam 70-345: Designing and Deploying Microsoft Exchange Server 2016.

Prerequisites: This course requires two years of experience working in the IT field--typically in the areas of Windows Server administration, network administration, help desk, or system administration.

MCSA: Web Applications

20480: Programming in HTML5 with JavaScript and CSS3

This 5-day Microsoft course provides an introduction to fundamental skills and knowledge for using HTML5, CSS3, and JavaScript for application development. Throughout the training, students come to understand how to implement programming logice, use variables, implement looping and branching, and many other programming techniques for creating well-structured applications. Students are exposed to developing web applications and apps for the Windows App Store. It covers:

- Explain how to use Visual Studio 2012 to create and run a Web application.
- Describe the new features of HTML5 and create and style HTML5 pages.
- Add interactivity to an HTML5 page by using JavaScript.
- Create HTML5 forms by using different input types and validate user input by using HTML5 attributes and JavaScript code.
- Send and receive data to and from a remote data source by using XMLHTTPRequest objects and jQuery AJAX operations.
- Style HTML5 pages by using CSS3.
- Create well-structured and easily-maintainable JavaScript code.
- Use common HTML5 APIs in interactive Web applications.
- Create Web applications that support offline operations.
- Create HTML5 Web pages that can adapt to different devices and form factors.
- Add advanced graphics to an HTML5 page by using Canvas elements and by using Scalable Vector Graphics.
- Enhance the user experience by adding animations to an HTML5 page.
- Use Web Sockets to send and receive data between a Web application and a server.
- Improve the responsiveness of a Web application that performs long-running operations by using Web Worker processes.

This course will prepare you for Exam 70-480: Programming in HTML5 with JavaScript and CSS3.

Prerequisites: This course requires an understanding of HTML programming.

20486: Designing ASP.NET 4.5 MVC Web Applications

This 5-day Microsoft course teaches students to develop advanced ASP.NET MVC applications using .NET Framework tools and technologies. The focus will be on coding activities that enhance the performance and scalability of a web application. ASP.NET MVC will be introduced and compared with Web Forms so that students know when each should/could be used. It covers:

- Describe the Microsoft Web Technologies stack and select an appropriate technology to use to develop any given application.
- Design the architecture and implementation of a web application that will meet a set of functional requirements and user interface requirements, and address business models.
- Create MVC Models and write code that implements business logic within Model methods, properties, and events.
- Add Controllers to an MVC Application to manage user interaction, update models, and select and return Views.
- Create Views in an MVC application that display and edit data and interact with Models and Controllers.
- Run unit tests and debugging tools against a web application in Visual Studio and configure an application for troubleshooting.
- Develop a web application that uses the ASP.NET routing engine to present friendly URLs and a logical navigation hierarchy to users.
- Implement a consistent look and feel, including corporate branding, across an entire MVC web application.

- Use partial page updates and caching to reduce the network bandwidth used by an application and accelerate responses to user requests.
- Write JavaScript code that runs on the client side and utilizes the jQuery script library to optimize the responsiveness of an MVC web application.
- Implement a complete membership system in an MVC web application.
- Build an MVC application that resists malicious attacks and persists information about users and preferences.
- Describe how to write a Microsoft Azure web service and call it from an MVC application.
- Describe what a Web API is and why developers might add a Web API to an application.
- Modify the way browser requests are handled by an MVC application.
- Describe how to package and deploy an ASP.NET MVC web application from a development computer to a web server for staging or production.

This course will prepare you for Exam 70-486: Developing ASP.NET MVC Web Applications.

Prerequisites: This course is intended for web developers who use MS Visual Studio.

MCSE: Productivity - Skype for Business 2015

20334: Core Solutions of Microsoft Skype for Business 2015

This 5-day Microsoft course provides students with the knowledge and skills that are required to plan, deploy, configure, and administer a Skype for Business 2015 solution. Students will learn how to deploy a multi-site and highly available Skype for Business infrastructure that supports instant messaging, conferencing, Persistent Chat, archiving, and monitoring. Students will also learn how to manage and maintain the infrastructure and how to troubleshoot issues that might arise. This course focuses primarily on an on-premises Skype for Business deployment, but it does include information on how to integrate an on-premises deployment with Skype for Business Online and how to migrate from previous versions of Lync Server. It covers:

- Describe the Skype for Business 2015 architecture and design a Skype for Business 2015 topology.
- Install and implement Skype for Business Server 2015.
- Administer Skype for Business Server 2015 by using various tools.
- Configure users and clients in Skype for Business 2015.
- Configure and implement conferencing in Skype for Business 2015.
- Implement additional conferencing options, such as dial-in conferencing, Microsoft Skype Room System (SRS), and Skype Meeting Broadcast.
- Design and implement monitoring and archiving in Skype for Business 2015.
- Deploy Skype for Business 2015 external access.
- Implement Persistent Chat in Skype for Business 2015.
- Implement high availability in Skype for Business 2015.
- Implement disaster recovery in Skype for Business 2015.
- Design and deploy a hybrid Skype for Business environment.
- Plan and implement an upgrade from Lync Server to Skype for Business Server 2015.

This course will prepare you for Exam 70-334: Core Solutions of Microsoft Skype for Business 2015.

Prerequisites: This course requires Proficiency with AS DS, data networks, and telecommunications standards and components that support the configuration of Skype for Business and familiarity with Microsoft Exchange Server and Microsoft Office 365.

MCSA: Windows Server 2012

20410: Installing and Configuring Windows Server 2012

This 5-day, instructor-led course is aimed at IT professionals responsible for implementing infrastructure services for Windows Server 2012. It covers:

- Windows Server 2012 implementation & management
- Dynamic Host Configuration Protocol (DHCP)IPv6 for basic situations

- File & print services
- Creating group policies
- Server virtualization via Hyper-V
- Local server storage
- Implementing Domain Name System (DNS)

This course is one of three needed for the MCSA Certification.

Prerequisites: Before taking this course, you should understand networking fundamentals, AD DS concepts, and security best practices. You should also have work experience with Windows client systems and a basic knowledge of server hardware.

20411: Administering Windows Server 2012

This 5-day, instructor-led course is geared toward IT professionals responsible for implementing, deploying, and managing Windows Server 2012. It will teach you how to:

- Configure & troubleshoot name resolution
- Manage users with AD DS & Group Policy
- Implement Remote Access Solutions, including DirectAccess, VPNs & Web Application Proxy
- Manage network policies, access protection & data security
- Deploy, maintain & manage Windows Server 2012

This course is one of three needed for the MCSA Certification.

Prerequisites: Before attending this course, you should have basic skills and knowledge of implementing and configuring core Windows Server applications and services. This includes Active Directory Domain Services (AD DS), Networking Services, and Hyper-V.

70-412: Configuring Advanced Windows Server 2012 Services

This 5-day, instructor-led course is intended for IT professionals responsible for administering Windows Server 2012. It teaches you how to:

- Configure DHCP, DNS & IP Address Manager
- Plan, implement & deploy AD RMS, AD FS, AD DS & AD CS
- Deploy & manage Hyper-V virtual machines
- Implement Network Loading Balance (NLB)
- Configure & manage iSCSI, BranchCache & FSRM
- Implement backup & disaster recovery solutions

This course is one of three needed for the MCSA Certification.

Prerequisites: Before taking this course, you should have experience working with Windows Server 2008 and Windows Server 2012.

The following courses represent different concentrations of the MSCE Certification.

MCSA: Windows Server 2016

20740: Install, Storage, & Compute with Windows Server 2016

This 5-day, instructor-led course is for IT professionals who manage the storage of and compute using Windows Server 2016. Students will learn to understand the scenarios, requirements, and storage and compute options available and applicable to Windows Server 2016. It teaches you how to:

- Prepare and install Nano Server, a Server Core installation, and plan a server upgrade and migration strategy.

- Describe the various storage options, including partition table formats, basic and dynamic disks, file systems, virtual hard disks, and drive hardware, and explain how to manage disks and volumes.
- Describe enterprise storage solutions and select the appropriate solution for a given situation.
- Implement and manage Storage Spaces and Data Deduplication.
- Install and configure Microsoft Hyper-V and configure virtual machines.
- Deploy, configure, and manage Windows and Hyper-V containers.
- Describe the high availability and disaster recovery technologies in Windows Server 2016.
- Plan, create, and manage a failover cluster.
- Implement failover clustering for Hyper-V virtual machines.
- Configure a Network Load Balancing (NLB) cluster and plan for an NLB implementation.
- Create and manage deployment images.
- Manage, monitor, and maintain virtual machine installations.

This course will prepare you for Exam 70-740: Installation, Storage, and Compute with Windows Server 2016.

Prerequisites: Before taking this course, you should have one year of experience working with Windows Server.

20741: Networking with Windows Server 2016

This 5-day, instructor-led course is for IT professionals who want to strengthen networking skills with new network technology. Students will learn core and advanced networking knowledge and skills. It teaches you how to:

- Plan and implement an IPv4 network
- Implement Dynamic Host Configuration Protocol (DHCP).
- Implement IPv6.
- Implement Domain Name System (DNS).
- Implement and manage IP address management (IPAM).
- Plan for remote access.
- Implement DirectAccess.
- Implement virtual private networks (VPNs).
- Implement networking for branch offices.
- Configure advanced networking features.
- Implement Software Defined Networking.

This course will prepare you for Exam 70-741: Networking with Windows Server 2016.

Prerequisites: Before taking this course, you should have one year of experience working with Windows Server.

20742: Identity with Windows Server 2016

This 5-day, instructor-led course teaches IT professionals how to deploy and configure Active Directory Domain Services (AD DS) in a distributed environment, how to implement Group Policy, how to perform backup and restore, and how to monitor and troubleshoot Active Directory-related issues with Windows Server 2016. It teaches you how to:

- Install and configure domain controllers
- Manage objects in AD DS by using graphical tools and Windows PowerShell
- Implement AD DS in complex environments.
- Implement AD DS sites and configure and manage replication.
- Implement and manage Group Policy Objects (GPOs).
- Manage user settings by using GPOs.
- Secure AD DS and user accounts.
- Implement and manage a certificate authority (CA) hierarchy with AD CS.
- Deploy and manage certificates.
- Implement and administer AD FS.
- Implement and administer Active Directory Rights Management Services (AD RMS).

- Implement synchronization between AD DS and Azure AD.
- Monitor, troubleshoot, and establish business continuity for AD DS services.

This course will prepare you for Exam 70-742: Identity with Windows Server 2016.

Prerequisites: Before taking this course, you should have some AD DS knowledge and experience.

MCSA: Windows Server 2016 Boot Camp

This 10-day instructor-led Boot Camp training supplies individuals with the fundamental knowledge of Windows Server 2016 to prepare them for managing Windows Server 2016 environments. Students will learn to manage storage, compute, networking, and Active Directory Domain Services. This training encompasses content from these courses:

- 20-740: Install, Storage, & Compute with Windows Server 2016
- 20-741: Networking with Windows Server 2016
- 20-742: Identity with Windows Server 2016

There are no prerequisites for this course.

Windows Server 2019

Windows Server 2019 is a five-day instructor-led class that offers an in-depth exploration of Windows Server 2019 capabilities and features. Participants will learn about the server's installation, configuration, management, and advanced services, preparing them for deployment and maintenance in enterprise environments.

- Master the installation, configuration, and management of Windows Server 2019.
- Explore advanced features and services of Windows Server 2019.
- Prepare for the deployment and maintenance of Windows Server in enterprise settings.

There are no prerequisites for this course.

MCSA: Windows 10

20698: Installing and Configuring Windows 10

This 5-day, instructor-led course provides IT professionals with the knowledge and skills required to install and configure Windows 10 desktops in a Windows Server small to medium-sized AD DS domain environment. It teaches you how to:

- Plan, install, and upgrade to Windows 10
- Perform post-installation configuration
- Implement networking
- Implement network security
- Manage Windows 10 with Group Policy
- Implement remote management
- Manage local storage
- Manage files and resources
- Install and manage apps
- Secure Windows 10
- Implement remote connectivity
- Maintain and update Windows 10
- Recover and troubleshoot Windows 10

This course will prepare you for the Exam 70-698: Installing and Configuring Windows 10.

There are no prerequisites for this course.

20697-1: Implementing and Managing Windows 10

This 5-day, instructor-led course teaches students to install and configure Windows 10 desktops and devices in a Windows Server domain corporate environment. Students will learn to install and customize Windows 10 operating systems and apps, and configure local and remote network connectivity and storage. In addition, they will learn to configure data security, device security, and network security, and maintain, update, and recover Windows 10. It teaches you how to:

- Describe the important new features of Windows 10
- Install Windows 10
- Configure a device running Windows 10
- Configure network connectivity for a Windows 10 device
- Manage storage in Windows 10
- Manage files and printers
- Manage apps
- Manage data security
- Manage device security
- Implement Windows 10 features to improve network security
- Monitor and update Windows 10 devices
- Restore files, roll back drivers, and recover Windows 10 devices

This course will prepare you for the Exam 70-697: Configuring Windows Devices.

Students taking this course should have at least one year of Windows experience.

20697-2: Deploying and Managing Windows 10 Using Enterprise Services

This 5-day, instructor-led course teaches students to install and configure Windows 10 desktops and devices in a Windows Server domain corporate environment. Students will learn to install and customize Windows 10 operating systems and apps, and configure local and remote network connectivity and storage. In addition, they will learn to configure data security, device security, and network security, and maintain, update, and recover Windows 10. It teaches you how to:

- Describe the challenges and solutions for desktop and device management in an enterprise environment
- Deploy Windows 10 Enterprise desktops
- Manage user profiles and user state virtualization
- Manage desktop and application settings using Group Policy
- Manage Windows 10 sign-in and identity
- Manage data access for Windows-based devices
- Manage remote access solutions
- Manage Windows 10 devices by using enterprise mobility solutions
- Manage desktop and mobile clients by using Intune
- Manage updates and Endpoint Protection using Intune
- Manage application and resource access by using Intune
- Configure and manage client Hyper-V

This course will prepare you for the Exam 70-697: Configuring Windows Devices.

Students taking this course should have experience with networks that are configured as Windows Server domain-based environments with managed access to the Internet and cloud services.

10982: Supporting and Troubleshooting Windows 10

This 5-day, instructor-led course addresses the skills and knowledge required to ensure IT professionals are up to the task of supporting and troubleshooting Windows 10. It teaches you how to:

- Describe the processes involved in planning and using a troubleshooting methodology for Windows 10.
- Troubleshoot startup issues and operating system services on a Windows 10 PC.
- Resolve issues that pertain to hardware devices and device drivers.
- Troubleshoot Windows 10 devices remotely.

- Troubleshoot issues that pertain to network connectivity.
- Troubleshoot client configuration failures and issues with application of Group Policy Objects.
- Troubleshoot issues related to user settings.
- Troubleshoot remote connectivity issues.
- Resolve issues related to accessing resources from devices that are domain-joined.
- Resolve issues related to accessing resources from devices that are not domain-joined.
- Troubleshoot issues that pertain to application installation and operation.
- Maintain a device running Windows 10.
- Recover a device running Windows 10.

This course will prepare you for the Exam 70-697: Configuring Windows Devices.

Students taking this course should have experience supporting Windows operating systems.

MCSA: Cloud Platform

20533-Implementing Microsoft Azure Infrastructure Solutions

This 5-day, instructor-led course teaches students to install and configure Windows 10 desktops and devices in a Windows Server domain corporate environment. Students will learn to install and customize Windows 10 operating systems and apps and configure local and remote network connectivity and storage. In addition, they will learn to configure data security, device security, and network security, and maintain, update, and recover Windows 10. It teaches you how to:

- Describe Azure architecture components, including infrastructure, tools, and portals
- Implement and manage virtual networking within Azure and connect to on-premises environments
- Plan and create Azure virtual machines
- Configure, manage, and monitor Azure virtual machines to optimize availability and reliability
- Deploy and configure web apps and mobile apps
- Implement, manage, backup, and monitor storage solutions
- Plan and implement data services based on SQL Database to support applications
- Deploy, configure, monitor, and diagnose cloud services
- Create and manage Azure AD tenants, and configure application integration with Azure AD
- Integrate on-premises Windows AD with Azure AD
- Automate operations in Azure management by using automation

This course will prepare you for Exam 70-533: Implementing Microsoft Azure Infrastructure Solutions.

Students taking this course should have familiarity with managing on-premises IT deployments.

20535-Architecting Microsoft Azure Solutions

This 5-day, instructor-led course is intended for architects who have experience building infrastructure and applications on the Microsoft Azure platform. Students should have a thorough understanding of most services offered on the Azure platform. The students typically work for organizations that have an active solution on Azure and are planning to enhance existing solutions or deploy more solutions to the Azure platform. It teaches you how to:

- Describe Azure architecture components, including infrastructure, tools, and portals.
- Create and deploy Azure Resource Manager (ARM) templates for various all-up solutions.
- Compare and contrast various infrastructure, serverless, database and communication services, such as App Services, Virtual Machine Scale Sets, Azure Cosmos DB, SQL Database, and Container Service in Azure.
- Incorporate various Azure platform services, such as Cognitive Services and Media Servicers, into an overall Azure solution.
- Secure, monitor, and backup solutions deployed to Azure.

- Create automated DevOps solutions using a combination of ARM templates, configuration management utilities, Azure CLI, and the Cloud Shell.

This course will prepare you for Exam 70-535: Architecting Microsoft Azure Infrastructure Solutions.

Students taking this course should have familiarity with managing on-premises IT deployments.

MCSE – Server Infrastructure Boot Camp

MCSE - Server Infrastructure Boot Camp is a seven-day instructor-led intensive training designed to prepare IT professionals for the Microsoft Certified Solutions Expert certification in server infrastructure. It covers advanced topics in server management and infrastructure services.

- Prepare for the MCSE certification with an intensive review of server infrastructure.
- Gain in-depth knowledge of advanced server management and infrastructure services.
- Master the skills necessary for managing modern server environments effectively.

There are no prerequisites for this course.

MCSE Securing Windows Server 2016 Track

20744 Securing Windows Server 2016

This 5-day, instructor-led course teaches IT professionals how they can enhance the security of the IT infrastructure that they administer. This course begins by emphasizing the importance of assuming that network breaches have occurred already and then teaches you how to protect administrative credentials and rights to help ensure that administrators can perform only the tasks that they need to, when they need to. It teaches you how to:

- Secure Windows Server.
- Protect credentials and implement privileged access workstations.
- Limit administrator rights with Just Enough Administration.
- Manage privileged access.
- Mitigate malware and threats.
- Analyze activity with advanced auditing and log analytics.
- Deploy and configure Advanced Threat Analytics and Microsoft Operations Management Suite.
- Configure Guarded Fabric virtual machines (VMs).
- Use the Security Compliance Toolkit (SCT) and containers to improve security.
- Plan and protect data.
- Optimize and secure file services.
- Secure network traffic with firewalls and encryption.
- Secure network traffic by using DNSSEC and Message Analyzer.

This course will prepare you for the Exam 70-744: Securing Windows Server 2016.

Students taking this course should have at least two years of experience in the IT field and should have completed courses 740, 741, and 742.

Microsoft 365

MS 900T01: Microsoft 365 Fundamentals

This 1-day, instructor-led course will teach students foundational knowledge about Microsoft 365 cloud features. Students will also be introduced to Microsoft Azure and learn how to identify differences between Microsoft 365 and Office 365. Students will learn about:

- Cloud concepts
- Microsoft 365 teamwork features

- Microsoft 365 production features
- Microsoft business and management tools
- Microsoft 365 security features and compliance capabilities
- Microsoft 365 licensing and support features

Students should have experience with networking, computing, and cloud concepts.

MS 100T00: Microsoft 365 Identity and Services

This 5-day, instructor-led course combines the objectives of Microsoft 365 Tenant and Service Management, Microsoft 365 Management, and Microsoft 365 Identity Management. This course explains concepts of Microsoft 365 enterprise administration. Students will learn how to design, configure, and manage their tenants. Students will gain knowledge of Microsoft 365 features, configuring Office clients, Microsoft Office 365 ProPlus deployments, and implementing Azure Active Directory Connect. Students will learn about:

- How to operate Microsoft 365 Tenant
- The features and functions available with 365 Tenant
- How to use Microsoft 365 ProPlus deployments
- Synchronization capabilities
- How to implement external access

Prerequisites for this course include completion of MS 200: Planning and Configuring a Messaging Platform and MS 201: Implementing a Hybrid and Secure Messaging Platform Associate or MS 300: Deploying Microsoft 365 Teamwork Associate and MS 301: Deploying SharePoint Server Hybrid Associate or MS 500T00 Microsoft (M365) Security Administration.

MS 101T00: Microsoft 365 Mobility and Security

This 5-day, instructor-led course combines the objectives of Microsoft 365 security Management, Microsoft 365 compliance management, and Microsoft 365 device management. Students will learn how to work with Microsoft security features as well as learn how to analyze threats, monitor security, and issue protection and threat intelligence. This course will teach students:

- How to describe Microsoft 365 Security Metrics, Services, and Intelligence
- How to manage data using Microsoft 365
- How to manage data with Microsoft 365 Intelligence
- Deployment capabilities with Microsoft 10
- How to implement device management

Prerequisites for this course include completion of MS 200: Planning and Configuring a Messaging Platform and MS 201: Implementing a Hybrid and Secure Messaging Platform Associate or MS 300: Deploying Microsoft 365 Teamwork Associate and MS 301: Deploying SharePoint Server Hybrid Associate or MS 500T00 Microsoft (M365) Security Administration.

MS 203T00: Microsoft 365 Messaging

This 5-day, instructor-led course was designed to show students how to manage the messaging system of Microsoft 365. This course will explore topics such as administration, compliance, and hybrid messaging. Students will learn how to:

- Manage the transport issues pipeline and transport mail flow issues
- Analyze hygiene
- Configure messaging settings
- Work with mobile devices
- Apply permissions and administrative roles
- Organize folders
- Execute mailbox migrations
- Monitor a hybrid environment

Prerequisites for this course include MS – 900T01 Microsoft 365 (M365) Fundamentals.

MS 500T00: Microsoft 365 Security Administration

This 4-day, instructor-led course teaches students how to implement security technologies and protect information in a Microsoft 365 environment. Students will explore Secure Score, Exchange online protection, Azure Advanced Threat Protection, and Windows Advanced Threat Protection. Students will learn about:

- Threat protection and mitigation
- Microsoft's security solutions
- User and group management
- Data governance
- Search protocol and policies

Recommended prerequisites include completion of MS – 900T01: Microsoft (M365) Fundamentals and experience with Microsoft Azure, Windows 10, and Office 365, computer infrastructure and mobile devices.

Microsoft 365 Modern Desktop Administrator Associate

This 5-day instructor-led course will teach students how to plan and implement an operating system deployment strategy using modern deployment methods, as well as how to implement an update strategy. Students will be introduced to key components of modern management and co-management strategies. After completing this course, participants will be able to:

- Plan, develop, and implement an Operating System deployment, upgrade, and update strategy.
- Understand the benefits and methods of co-management strategies.
- Plan and implement device enrollment and configuration.
- Manage and deploy applications and plan a mobile application management strategy.
- Manage users and authentication using Azure AD and Active Directory DS.
- Describe and implement methods used to protect devices and data.

Prerequisites: Students taking this course should be familiar with Microsoft 365 workloads and have experience with deploying, configuring, and maintaining Windows 10 and later and non-Windows devices.

Microsoft Windows Client

This 5-day instructor-led course will teach participants how to support and configure Windows desktops in an organizational environment. After completing this course, participants will be able to

- Install and customize Windows clients
- Configure Updates for Windows.
- Configure devices and drivers for Windows.
- Configure storage for Windows.
- Configure network and remote management settings in Windows.
- Configure and manage browsers and applications in Windows.
- Configure account access and authentication.
- Configure file and folder permissions.
- Describe methods for securing Windows clients, common threats, and methods for mitigating against them.
- Troubleshoot Windows and application installations.
- Troubleshoot hardware and driver issues.
- Troubleshoot file issues and perform recoveries

MS 20762 Developing SQL Databases

MS 20762 Developing SQL Databases is a five-day instructor-led class that teaches the essential skills for developing SQL Server databases. The course includes training on database design, indexing strategies, and stored procedure development.

- Acquire the skills for effective SQL Server database development.
- Learn about database design principles, indexing strategies, and stored procedures.
- Enhance database performance and efficiency through advanced development techniques.

There are no prerequisites for this course.

There are no prerequisites for this course.

MS SQL Server/Structured Query Language with STIG focus

MS SQL Server/Structured Query Language with STIG focus is a four-day instructor-led class that provides in-depth training on SQL Server with an emphasis on Security Technical Implementation Guides (STIGs). This course will educate attendees on how to secure SQL Server databases to meet compliance and security standards.

- Secure SQL Server databases in accordance with STIGs and compliance standards.
- Implement best practices for database security and compliance.
- Enhance SQL Server security posture through targeted training and practices.

There are no prerequisites for this course.

MS 55197 MS SharePoint Server 2016 for the Site Owner/Power User

MS 55197 MS SharePoint Server 2016 for the Site Owner/Power User is a two-day instructor-led class that equips site owners and power users with the skills to manage and configure a SharePoint 2016 environment. Participants will learn to create, manage, and customize SharePoint sites effectively to meet organizational needs.

- Master SharePoint 2016 management and configuration for site owners and power users.
- Learn to create, manage, and customize SharePoint sites.
- Enhance collaboration and productivity within organizations using SharePoint 2016.

There are no prerequisites for this course.

MS 55238 SharePoint Online for Administrators

MS 55238 SharePoint Online for Administrators is a three-day instructor-led class that focuses on administering and configuring the SharePoint Online platform. Attendees will gain a comprehensive understanding of SharePoint Online management, including user and group management, security settings, and site collection configuration.

- Administer and configure SharePoint Online effectively.
- Manage users, groups, security settings, and site collections.
- Ensure optimal performance and security of SharePoint Online environments.

MS 10325: Automating Administration with Windows PowerShell 2.0

MS 10325: Automating Administration with Windows PowerShell 2.0 is a five-day instructor-led class that provides in-depth training on automating and managing Windows environments using PowerShell 2.0. Participants will learn scripting, automation techniques, and PowerShell cmdlets.

- Master Windows automation using PowerShell 2.0 scripting.
- Learn to manage and automate Windows environments effectively.
- Develop advanced skills in using PowerShell cmdlets for administrative tasks.

There are no prerequisites for this course.

MS 10961: Automating Administration with Windows PowerShell

This 5-day, instructor-led course addresses the skills and experience required for IT professionals to manage Windows-based servers and automate and oversee multiple Windows servers. It teaches you how to:

- Understand the basic concepts behind Windows PowerShell
- Work with the Pipeline
- Understand How the Pipeline Works
- Use PSProviders and PSDrives
- Format Output
- Use WMI and CIM

- Prepare for Scripting
- Moving from a Command to a Script to a Module
- Administer Remote Computers
- Put the various Windows PowerShell components together
- Use Background Jobs and Scheduled Jobs
- Use Advanced PowerShell Techniques and Profiles

Students taking this course should have previous Windows Server and Windows Client management experience.

There are no prerequisites for this course.

MS 55039 Windows PowerShell Scripting and Toolmaking

MS 55039 Windows PowerShell Scripting and Toolmaking is a five-day instructor-led class that dives into advanced scripting and toolmaking in Windows PowerShell. Attendees will learn to automate complex administrative tasks and build tools that improve efficiency across their Windows-based systems.

- Develop advanced PowerShell scripting skills for automation and toolmaking.
- Create custom tools to streamline administrative tasks and processes.
- Enhance system management and efficiency through PowerShell automation.

There are no prerequisites for this course.

MS 700T00: Managing Microsoft Teams

This 4-day, instructor-led course will show students how to implement Microsoft Teams into their organization. Students will learn about Microsoft Teams features and how to manage teams and apply teams to their infrastructures. Students will be able to:

- Understand Microsoft Teams and demonstrate how to use Microsoft Teams features
- Apply Governance, Security, and compliance
- Install Microsoft Teams
- Create teams
- Develop collaboration and communication tasks

Students should have experience with Microsoft 365 and have beginner's knowledge of IT practices.

Microsoft Power BI

Introduction to Microsoft Power BI

This 2-day instructor-led course teaches participants to use this powerful collection of software, apps, and services to help you analyze your organization's data and uncover insights and trends. After completing this course, students will be able to understand the following:

- The purposes and basic functions of the core Power BI components
- Using the Power BI desktop client and web app
- Connecting to a data source using either the Power BI desktop client or the web app
- Modeling data
- Creating reports and visualizations

There are no prerequisites for this course, but the material assumes that the user has an intermediate knowledge of Excel and Access, as well as a basic knowledge of Windows and web browsers.

MS 20778: Analyzing Data with Power BI

This 4-day instructor-led course teaches participants to use Power BI for data analysis. The course includes creating visualizations, the Power BI Service, and the Power BI Mobile App. This is a refresh to the preceding versions to take account of changes in the Power BI service. After completing this course, students will be able to do the following:

- Describe self-service BI.
- Describe the Power BI suite of products.
- Connect to data sources and optimize data models.
- Shape and combine data from different sources.
- Model data.
- Create reports and manage solutions.
- Describe the Power BI developer API.
- Describe the Power BI mobile app.

There are no prerequisites for this course.

Microsoft Power BI Data Analyst Associate

Microsoft Power BI Data Analyst Associate is a three-day instructor-led class that focuses on utilizing Power BI to analyze data and create reports. Participants will learn to transform, visualize, and analyze data effectively using Power BI tools.

- Gain proficiency in using Power BI for data transformation, visualization, and analysis.
- Learn to create impactful reports and dashboards to communicate insights.
- Understand the best practices for data modeling and analysis in Power BI.

There are no prerequisites for this course.

MICROSOFT AZURE

AZ-900T00 Microsoft Azure Fundamentals

This 2-day, instructor-led course will provide students with foundational Microsoft Azure features while offering a hands-on experience. Students will learn how to:

- Understand Cloud services and features
- Identify Azure core cloud parts and gain knowledge of services, products, and tools
- Describe principles of Azure security, privacy, compliance, and trust
- Explain Azure pricing and support

There are no prerequisites for this course.

AZ-900T01: Microsoft Azure Fundamentals

This 1-day, instructor-led course will provide foundational-level knowledge of cloud services and how those services are provided with Microsoft Azure. The course can be taken as an optional first step in learning about cloud services and Microsoft Azure, before taking further Microsoft Azure or Microsoft cloud services courses. Students who desire hands-on experience should take AZ-900T00 instead. Participants will learn to do the following:

- Students will learn to do the following:
- Understand general cloud computing concepts
- Understand core services available with Microsoft Azure
- Understand security, privacy, compliance, and trust with Microsoft Azure
- Understand pricing and support models available with Microsoft

Technical IT experience is not required; however, some general IT knowledge or experience would be beneficial.

AZ-103T00: MS Certified Azure Administrator

This 4-day, instructor-led course teaches IT professionals how to manage their Azure subscriptions, create and scale virtual machines, implement storage solutions, configure virtual networking, back up and share data, connect Azure and on-premises sites, manage network traffic, implement Azure Active Directory, secure identities, and monitor your solution. It teaches you how to:

- Manage Azure subscriptions and resources
- Implement and manage storage
- Deploy and manage virtual machines (VMs)
- Configure and manage virtual networks
- Manage identities

This course will prepare students for the Exam AZ-103: Microsoft Azure Administrator. Students taking this course should have familiarity with managing on-premises IT deployments.

AZ-104T00: Microsoft Azure Administrator

- This 4-day, instructor-led course teaches IT professionals about the security, networking capabilities, storage features, and virtual networks available in a cloud environment. Students will come out of this course feeling more confident about managing their solutions. This course will teach students to:
- Manage and secure identifies with Azure Active Directory
- Implement Azure policies
- Create subscriptions and accounts
- Identify tools available to Azure Administrators
- Implement Virtual networking
- Understand network traffic
- Create storage accounts
- Create apps
- Develop monitoring solutions

Students should have a working knowledge of operating systems, virtualization, cloud infrastructure, storage structures, and networking before taking this course.

AZ-204T00: Developing solutions for Microsoft Azure

This 5-day, instructor-led course was designed to teach all about Azure development protocols. Students will learn about everything about Azure functions and how to manage their solutions. Students will also explore topics such as authentication and authorization, storage features, optimization, and more. This course will teach students to:

- Apply Azure App Service Web Apps
- Utilize Azure functions
- Create solutions using different storage features
- Develop event-based and message-based solutions
- Implement Virtual networking
- Understand network traffic
- Implement secure clouds
- Utilize IaaS solutions
- Monitor solutions

Students should have working knowledge of Microsoft Azure and Azure programming language.
This course will prepare students for the Azure Developer Associate Certification Exam.

AZ-220T00: Microsoft Azure IoT Developer

This 4-day, instructor-led course will teach students about the cloud and edge services available in an Azure IoT solution. Students will gain knowledge of and learn how to maintain Azure PaaS services, IoT Edge, and Azure IoT Central. This course will teach students how to:

- Understand the IoT Hub and how to utilize the IoT Hub to perform different tasks
- Utilize Azure functions
- Create solutions using different storage features
- Develop event-based and message-based solutions
- Identify security issues and security solutions using the Azure Security Center for IoT

- Develop IoT Edge scenarios with custom modules and marketplace modules
- Maintain devices
- Create IoT solutions

Recommended prerequisites include completion of AZ – 900T01 Microsoft Azure Fundamentals and working knowledge of PaaS, SaaS, IaaS, software development, and data processing.

AZ-300T01: Deploying and Configuring Infrastructure

This 1-day, instructor-led course teaches IT professionals how to manage their Azure resources, including deployment and configuration of virtual machines, virtual networks, storage accounts, and Azure AD that includes implementing and managing hybrid identities. You will also learn how cloud resources are managed in Azure through user and group accounts, and how to grant access to Azure AD users, groups, and services using Role-based access control (RBAC). After completing this course, students will be able to do the following:

- Manage Azure Subscriptions and Resources
- Implement and Manage Storage
- Deploy and Manage VMs
- Configure and Manage Virtual Networks
- Manage Identities using Azure Active Directory

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-300T02: Implementing Workloads and Security

This 1-day, instructor-led course teaches IT professionals how to discover, assess, plan and implement a migration of on-premises resources and infrastructure to Azure. Students will learn how to use Azure Migrate to perform the discovery and assessment phase that is critical to a successful migration. Students will also learn how to use Azure Site Recovery for performing the actual migration of workloads to Azure. The course focuses primarily on using ASR on a Hyper-V infrastructure to prepare and complete the migration process. After completing this course, students will be able to do the following:

- Evaluate and Perform Server Migration to Azure
- Implement and Manage Application Services
- Implement Advanced Virtual Networking.
- Secure Identities using Azure AD

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-300T03: Understanding Cloud Architect Technology Solutions

This 1-day, instructor-led course teaches IT professionals how operations are done in parallel and asynchronously, how your whole enterprise system must be resilient when failures occur, and just as importantly, how deployments can be automated and predictable. By using the Azure Application Architecture Guide and Azure reference architectures as a basis, you will understand how monitoring and telemetry are critical for gaining insight into the system. After completing this course, students will be able to do the following:

- Design and Connectivity Patterns
- Hybrid Networking
- Address Durability of Data and Caching
- Measure Throughput and Structure of Data Access

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-300T04: Creating and Deploying Apps

This 1-day, instructor-led course teaches IT professionals how to build Logic App solutions that integrate apps, data, systems, and services across enterprises or organizations by automating tasks and business processes as workflows. Logic Apps is a cloud service in Azure that simplifies how you design and create scalable solutions for app integration, data integration, system integration, enterprise application integration (EAI), and business-to-business (B2B) communication, whether in the cloud, on-premises, or both. After completing this course, students will be able to do the following:

- Use shell commands to create an App Service Web App
- Create Background Tasks
- Use Swagger to document an API
- Create a reliable service
- Create a Reliable Actors app
- Hands-on with Reliable collections
- Understand the Azure Container Registry
- Use Azure Container instances

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-300T06: Developing for the Cloud

This 1-day, instructor-led course teaches IT professionals how to configure a message-based integration architecture, develop for asynchronous processing, create apps for autoscaling, and better understand Azure Cognitive Services solutions. After completing this course, students will be able to do the following:

- Configure a message-based integration architecture
- Develop for Asynchronous Processing
- Create apps for Autoscaling
- Understand Azure Cognitive Services Solutions

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-301T01: Designing for Identity and Security

This 1-day, instructor-led course teaches IT professionals how to manage security and identity within the context of Azure. Also, you'll be introduced to multiple SaaS services available in Azure for integration into existing Azure solutions. After completing this course, students will be able to do the following:

- Integrate their existing solutions with external identity providers using Azure AD B2B or B2C.
- Design a hybrid identity solution.
- Determine when to use advanced features of Azure AD, such as Managed Service Identity, MFA, and Privileged Identity Management.
- Secure application secrets using Key Vault.
- Secure application data using SQL Database and Azure Storage features.
- Detail the various APIs available in Cognitive Services.
- Identify when to use the Face API, Speech API, or Language Understanding (LUIS) service.
- Describe the relationship between Bot Framework and Azure Bot Services

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-301T02: Designing a Data Platform Solution

This 1-day, instructor-led course teaches IT professionals to compare and contrast various database options on Azure, identify data streaming options for large-scale data ingest, and identify longer-term data storage options. After completing this course, students will be able to do the following:

- Determine the ideal pricing option for Azure Storage based on a solution's requirements.
- Identify performance thresholds for the Azure Storage service.
- Determine the type of Storage blobs to use for specific solution components.
- Use the Azure Files service for SMB operations.
- Identify solutions that could benefit from the use of StorSimple physical or virtual devices.
- Compare and contrast monitoring services for applications, the Azure platform, and networking.
- Design an alert scheme for a solution hosted in Azure.
- Select the appropriate backup option for infrastructure and data hosted in Azure.
- Automate the deployment of future resources for backup recovery or scaling purposes.

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-301T03: Designing for Deployment, Migration, and Integration

This 1-day, instructor-led course teaches IT professionals to compare and contrast various database options on Azure, identify data streaming options for large-scale data ingest, and identify longer-term data storage options. After completing this course, students will be able to do the following:

- Create a resource group
- Add resources to a resource group
- Deploy an ARM template to a resource group
- Integrate an API or Logic App with the API Management service
- Design an App Service Plan or multi-region deployment for high performance and scale
- Integrate an API or Logic App with the API Management service
- Design an App Service Plan or multi-region deployment for high performance and scale

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-301T04: Designing an Infrastructure Strategy

This 1-day, instructor-led course teaches IT professionals to describe DNS and IP strategies for VNETs in Azure, compare connectivity options for ad-hoc and hybrid connectivity, distribute network traffic across multiple loads using load balancers, and design a hybrid connectivity scenario between cloud and on-premise. After completing this course, students will be able to do the following:

- Describe various patterns pulled from the Cloud Design Patterns.
- Distribute network traffic across multiple loads using load balancers.
- Design a hybrid connectivity scenario between cloud and on-premise.
- Design an availability set for one or more virtual machines.
- Describe the differences between fault and update domains.
- Author a VM Scale Set ARM template

Successful Cloud Solutions Architects begin this role with practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

MS Certified Azure Solutions Architect Expert

This 5-day, instructor-led course teaches IT professionals to implement and design a Virtual Datacenter in Azure Cloud. It teaches you how to:

- Deploy and configure infrastructure
- Implement workloads and security
- Create and deploy apps
- Implement authentication and secure data

- Develop for the cloud and for Azure storage
- Determine workload requirements
- Design for identity and security
- Design a data platform solution
- Design a business continuity strategy
- Design for deployment, migration, and integration
- Design an infrastructure strategy

This course will prepare students for the Exam AZ-300 and AZ-301: Azure Solutions Architect Expert. Students taking this course should have practical experience with operating systems, virtualization, cloud infrastructure, storage structures, billing, and networking.

AZ-303T00: Microsoft Azure Architect Technologies

This 5-day, instructor-led course will teach students how to design a solution to reflect the integration of business needs and cloud services. Students will learn about topics including the application infrastructure, virtualization, storage, security, and more. This course will teach students to:

- Work with Azure Active Directory to set security requirements
- Utilize identity solutions
- Identify resources to create and manage monitoring solutions
- Configure Role Based Access Control and other account features
- Use different Azure features to implement Administration features
- Configure interstice connectivity
- Gain experience with Azure App Service, Container Instances, and Kubernetes

Recommended prerequisites include completion of AZ – 1040T00: Microsoft Azure Administrator and AZ – 20400T00 Developing Solutions for Microsoft Azure Associate (Developer. This course will prepare you for exam AZ -303.

AZ-304T00: Microsoft Azure Architect Design

This 4-day, instructor-led course will teach students about the Azure Design functionalities that can be implemented with a design solution. This course will teach students to:

- Manage solution costs
- Identify a solution for Conditional Access
- Demonstrate solutions for hybrid identities
- Understand Azure Policy
- Create an Azure Site Recovery solution
- Provide solutions for auto scanning, containers, network security VM's, and databases

Recommended prerequisites include completion of AZ – 104T00 Microsoft Azure Administrator, AZ – 204T00 Developing Solutions for Microsoft Azure Associate (Developer), and experience with Azure Administration, development, and DevOps processes.

AZ-305T00 Designing Microsoft Azure Infrastructure Solutions

Designing Microsoft Azure Infrastructure Solutions is a four-day instructor-led class that offers a deep dive into the planning and implementation of infrastructure solutions on Microsoft Azure. Participants will learn about Azure services and how to design scalable, resilient, and secure infrastructure solutions. The course prepares attendees for architecting robust cloud environments using Azure technologies.

- Learn to design and implement scalable, resilient, and secure cloud infrastructure on Microsoft Azure.
- Gain an in-depth understanding of Azure services and their applications in infrastructure solutions.
- Prepare for roles focused on architecting and managing cloud environments within the Azure ecosystem.

Prerequisites: There are no formal prerequisites for this course, but to receive the Expert certification after passing the exam, students must also have the AZ-104 certification. They should also have general experience in Azure administration, Azure development, and DevOps processes.

AZ-400T00 Designing and Implementing Microsoft DevOps Solutions

This 5-day, instructor-led course was designed to teach students about DevOps solutions and how to implement a DevOps strategy. This course will teach students to:

- Utilize source controls
- Understand Git features and how to use them to meet business requirements
- Manage artifacts
- Create a project and monitor project performance and schedule
- Understand and plan for continuous integration
- Design and utilize security policies
- Develop a container-build strategy
- Analyze and capture feedback

Recommended prerequisites include completion of AZ – 900T0I Microsoft Azure Fundamentals (1 Day).

AZ-500T00 Microsoft Azure Security Technologies

This 4-day, instructor-led course will teach students how to create and monitor Azure Security features. Students will learn how to:

- Manage identify and access controls
- Access Platform Protection
- Secure data and applications
- Understand Azure Policy
- Manage security operations
- Provide solutions for autoscaling, network security, VMs, containers,, and databases

Recommended prerequisites include completion of AZ – 1040T00 Microsoft Azure Administrator, AZ – 900T00 Microsoft Azure Fundamentals, working knowledge of security protocols, and familiarity with security best practices. This course will prepare students for exam AZ – 500: Microsoft Azure Security Technologies.

AZ-801: Configuring Windows Server Hybrid Advanced Services

AZ-801: Configuring Windows Server Hybrid Advanced Services is a four-day instructor-led class that focuses on the advanced configuration of hybrid services for Windows Server environments. The course covers high availability, disaster recovery, advanced networking, and security features in a hybrid setup. By the end of this class, IT professionals will be equipped to deploy and manage hybrid infrastructure services effectively.

- Understand the configuration of advanced hybrid services in Windows Server environments.
- Implement high availability and disaster recovery solutions in hybrid configurations.
- Enhance security and networking in a hybrid Windows Server infrastructure.

There are no prerequisites for this course.

AZ-040T00: Automating Administration with Windows PowerShell

AZ - 040: Automating Administration with Windows PowerShell is a five-day instructor-led class that provides in-depth coverage of Windows PowerShell scripting and automation. This comprehensive course takes participants from basic to advanced techniques in PowerShell, including automation of repetitive tasks, development of scripts, and management of Windows environments. Attendees will have the opportunity to practice scripting with expert guidance to master PowerShell commands and capabilities.

- Master the basics of PowerShell scripting for automating administrative tasks.

- Develop advanced PowerShell scripts to automate complex management tasks.
- Gain hands-on experience with PowerShell to streamline Windows environment management.

There are no prerequisites for this course.

DP-100T01 Designing and Implementing a Data Science Solution on Azure

This 3-day, instructor-led course will teach students how to use Python services to manage a Machine Learning solution in Microsoft Azure. Students will learn how to:

- Explain Azure Machine Learning
- Perform experiments using Azure Machine Learning Service
- Define Data science and work with data
- Manage and deploy models

Recommended prerequisites for this course include AZ – 900T01: Microsoft Azure Fundamental (1 Day), experience with Microsoft Azure, Python code, and prior knowledge of data science.

DP-200T01: Implementing an Azure Data Solution

This 3-day, instructor-led course will give students hands on experience applying business and technical Azure solutions for data platforms. Students will learn how to:

- Manage Data storage
- Understand data analytics
- Analyze relational and No SQL data
- Monitor and evaluate Azure Solutions

Recommended prerequisites for this course include AZ – 900T01: Microsoft Azure Fundamental (1 Day),

DP-201T01: Designing an Azure Data Solution

This 2-day, instructor-led course will give students hands-on experience designing business and technical Azure solutions for data platforms. Students will learn how to:

- Identify Data Platform Architecture Options
- Describe Architectures for Azure Batch Processing References and Azure Real-Time References
- Explore Security Design Options
- Design an Azure Solution for resiliency, scale, efficiency, and operations

Recommended prerequisites for this course include AZ – 900T01: Microsoft Azure Fundamental (1 Day),

DP-300T00: Administering Relational Databases on Microsoft Azure

This 4-day, instructor-led course teaches students how to administer an SQL Server database infrastructure for different platforms. Students will learn to:

- Plan, deploy, and configure Azure SQL features
- Evaluate database performance and develop strategies for improvement
- Develop a High Availability solution

Recommended prerequisites for this course include AZ – 900T01: Microsoft Azure Fundamental (1 Day) and Microsoft Azure Data Fundamentals.

DP-900T00: Microsoft Azure Data Fundamentals

This 1-day, instructor-led course will teach students how to apply business and technical concepts to a solution using Microsoft Azure Data Services. Students will learn how to:

- Use relational and non-relational SQL data on Azure
- Describe cloud data services

- Explore Azure Data Warehouses

There are no prerequisites for this course.

SC-300: Microsoft Identity and Access Administrator

Microsoft Identity and Access Administrator is a four-day instructor-led class that prepares IT professionals to manage tasks related to identity and access within Microsoft Azure. The course covers identity protection, access management, and security strategies.

- Understand the fundamentals of identity and access management in Azure environments.
- Learn to implement and manage identity protection and access control mechanisms.
- Master the strategies for ensuring secure access to resources in Azure.

AMAZON WEB SERVICES (AWS)

Cloud Practitioner

In this 1-day course is intended for individuals seeking to gain knowledge about the AWS Cloud. This course also helps you prepare for the AWS Certified Cloud Practitioner Exam. This training course will teach the following:

- What the cloud is and how it works
- How to identify the differences between cloud computing and deployment models
- AWS Cloud Value proposition
- The basic global infrastructure of the cloud
- How to interact with AWS
- How to implement solutions with AWS Cloud services
- The AWS service domains
- The framework of AWS
- AWS Cloud principles
- The Shared Responsibility Model
- Security Services with the AWS Cloud
- Billing, Account Management, and pricing models for the AWS platform
- Future developments

Students should have General IT technical and business knowledge.

Fundamentals of AWS

Fundamentals of AWS is a one-day instructor-led class introducing the Amazon Web Services (AWS) cloud platform. Participants will learn about AWS core services, architecture, and how to navigate the AWS Cloud environment effectively.

- Gain an introduction to the AWS cloud platform and its core services.
- Understand the architecture of AWS and how to navigate the cloud environment.
- Learn the basics of deploying and managing applications on AWS.

There are no prerequisites for this course.

AWS Technical Essentials

In this 1-day course, students will be introduced to AWS products, services, and common solutions. This course will explain the following:

- Terminology and concepts related to the AWS platform
- How to navigate the AWS Management Console
- Key concepts of AWS security measures and AWS Identity and Access Management (IAM)
- What some of the key AWS services are, including:

- Foundational services: Amazon Elastic Compute Cloud (Amazon EC2), Amazon Virtual Private Cloud (Amazon VPC), Amazon Simple Storage Service (Amazon S3), and Amazon Elastic Block Store (Amazon EBS)
- Database services: Amazon DynamoDB and Amazon Relational Database Service (Amazon RDS)
- Management services: including AWS Auto Scaling, Amazon CloudWatch, Elastic Load Balancing (ELB), and AWS Trusted Advisor

There are no prerequisites to this course.

AWS Certified Solutions Architect - Associate Training

AWS Certified Solutions Architect - Associate Training is a one-day instructor-led class designed to prepare participants for the AWS Certified Solutions Architect - Associate exam. The course covers the fundamentals of building IT infrastructure on AWS and provides an understanding of AWS services and architecture best practices. Attendees will gain the knowledge required to design secure and robust solutions using AWS technologies.

- Acquire a foundational understanding of AWS cloud architecture and services.
- Learn best practices for designing secure and reliable AWS-based applications.
- Prepare for the AWS Certified Solutions Architect - Associate exam with targeted study strategies and insights.

There are no prerequisites for this course.

AWS Security Essentials

This 1-day instructor-led course covers fundamental AWS cloud security concepts, including AWS access control, data encryption methods, and how network access to your AWS infrastructure can be secured. At the completion of this course, participants will be able to:

- Identify security benefits and responsibilities when using the AWS Cloud
- Describe the access control and management features of AWS
- Understand the different data encryption methods to secure sensitive data
- Describe how to secure network access to your AWS resources
- Determine which AWS services can be used for security logging and monitoring

Prerequisites: Working knowledge of IT security practices and infrastructure concepts and familiarity with cloud computing concepts.

Security Engineering on AWS

In this 3-day AWS course, students will gain knowledge of the AWS Security Cloud and how to protect the infrastructure. Students will learn which security features are available to them and which solutions would be best to protect their business. The course will teach students to:

- Understand the security features of the AWS Cloud
- Describe the access control and management features of AWS
- Identify different data encryption methods to secure sensitive data
- Secure network access to AWS resources

Prerequisites for this course include AWS Cloud Practitioner, AWS Security Fundamental, and Architecting on AWS.

System Operations on AWS

This 3-day course covers best practices for Systems Operations on the AWS platform. Students will learn how to create automated and repeatable deployments of networks and systems on the AWS platform.

Students should complete the AWS Technical Essentials course before taking this course. This course prepares students for the AWS Certified SysOps Administrator – Associate Exam.

DevOps Engineering on AWS

In this 3-day course, students will learn common DevOps patterns to develop, deploy, and maintain applications on the AWS platform. The course will cover a variety of use cases for varying computing environments ranging from small to enterprise organizations with relation to the usage of core DevOps methodology.

Students should complete the Developing on AWS course before taking this course. This course prepares students for the AWS Certified DevOps Engineer - Professional Exam.

Architecting on AWS

In this 3-day AWS course, students will learn to use architectural best practices for AWS, build scalable and reliable infrastructure solutions, and leverage AWS solutions within different computing environments.

The Prerequisite for this course is the AWS Technical Essentials course. This course prepares students for the AWS Certified Solutions Architect-Associate Exam.

Advanced Architecting on AWS

In this 3-day AWS course, students will learn how to build complex solutions that incorporate data services, governance, and security on AWS. This Amazon AWS Training course introduces specialized AWS services, including AWS Direct Connect and AWS Storage Gateway, to support hybrid architecture. It also covers designing best practices for building scalable, elastic, secure, and highly available applications on AWS.

Students should complete the Architecting on AWS course before taking this course. This course prepares students for the AWS Certified Solutions Architect-Professional exam.

Architecting on AWS Accelerator Training

This 5-day AWS course combines topics covered in Architecting on AWS and Advanced Architecting on AWS to offer a comprehensive, immersive course in cloud architecture. Students will learn about AWS services, including computing, storage, database, networking, security monitoring, automation, optimization, and more. Students will also be able to experience hands-on learning to help them apply their knowledge. This course will teach students to:

- Make architectural decisions based on AWS architectural principles and best practices
- Use AWS services for infrastructure operations
- Use AWS-managed services to enable greater flexibility and resiliency in your infrastructure
- Increase performance and reduce costs
- Use the Well Architecture Framework to improve architectures and AWS solutions

Students can take AWS technical Essentials as a prerequisite for this course, or they should be familiar with AWS cloud computing, TCP/IP networking concepts, and multi-tier architectures and distributed systems.

Developing on AWS

In this 3-day AWS course will address how to develop secure and scalable cloud applications with the AWS SDK. Additionally, students will get hands-on experience interacting with AWS with code while learning about best practices, key concepts, troubleshooting guidelines.

Students should complete the AWS Technical Essentials course before taking this course. This course prepares students for the AWS Certified Developer-Associate exam.

Advanced Developing on AWS

This 3-day AWS course builds upon the concepts discussed in the “Developing on AWS” course. Students will deep dive into advanced development topics such as architecting for non–cloud environment legacy applications, and develop ing an understanding of the Twelve-Factor application methodology. This course will teach students how to:

- Analyze a monolithic application architecture
- Understand the Twelve-Factor application methodology

- Develop a microservices-based cloud-native application
- Implement AWS, API, CLI, and SDKs for AWS services
- Demonstrate the use of the 6 Rs of migration
- Explain the SysOps application to microservices in AWS
- Explain DevOps application to microservices in AWS

Prerequisites for this course are completion of the Developing on AWS course, at least 6 months of real-world experience with the concepts, experience with AWS services, and working knowledge of at least one programming language.

DevOps Engineering on AWS

This 3-day AWS course will address common DevOps patterns to develop, deploy, and maintain applications on the AWS platform. The course will cover a variety of use cases for varying computing environments ranging from small to enterprise organizations with relation to the usage of core DevOps methodology.

Students should complete the Developing on AWS course before taking this course. This course prepares students for the AWS Certified DevOps Engineering - Professional exam.

Data Warehousing on AWS

In this 3-day instructor-led course, participants will be introduced to concepts, strategies, and best practices for designing a cloud-based data warehousing solution using Amazon Redshift, the petabyte-scale data warehouse in AWS. This course demonstrates how to collect, store, and prepare data for the data warehouse by using AWS services such as Amazon DynamoDB, Amazon EMR, Amazon Kinesis, and Amazon S3. Additionally, this course demonstrates how to use Amazon QuickSight to perform analysis on data. At the completion of this course, participants will be able to:

- Discuss the core concepts of data warehousing and the intersection between data warehousing and big data solutions
- Launch an Amazon Redshift cluster and use the components, features, and functionality to implement a data warehouse in the cloud
- Use other AWS data and analytic services, such as Amazon DynamoDB, Amazon EMR, Amazon Kinesis, and Amazon S3, to contribute to the data warehousing solution
- Architect the data warehouse
- Identify performance issues, optimize queries, and tune the database for better performance
- Use Amazon Redshift Spectrum to analyze data directly from an Amazon S3 bucket
- Use Amazon QuickSight to perform data analysis and visualization tasks against the data warehouse.

Prerequisites: Students taking this course should have taken the AWS Technical Essentials course or have equivalent experience. They should also be familiar with relational databases and database design concepts.

Big Data on AWS

In this 3-day AWS course, students will learn about Cloud-based Big Data Solutions available on the AWS Big Data platform. Students will learn how to process data and use different tools to create Big Data environments. Students will also learn about how to implement security and cost-effectiveness while using Big Data platforms. The course will teach students:

- How to fit AWS inside a Big Data Ecosystem
- How to leverage Apache Hadoop in the context of Amazon EMR
- The components of an Amazon EMR cluster and how to launch and configure the cluster
- How to use common programming frameworks
- Choose appropriate AWS storage options
- Comprehend and manage costs and security for a Big Data Solution
- Identify options for ingesting, transferring, and compressing data
- Demonstrate knowledge and understanding of Amazon Kinesis
- Demonstrate knowledge and understanding of Amazon Athena
- Demonstrate knowledge and understanding of Amazon Quicksight
- Use AWS Glue to operate workloads

Prerequisites include completion of the AWS Technical Essentials course or equivalent experience and working knowledge of big data technologies, AWS services, public cloud implementation, and relational database design. Students should complete the Developing on AWS course before taking this course.

Planning and Designing Databases on AWS

In this 3-day AWS course, students will learn all about AWS databases so that students can determine whether a relational or nonrelational AWS database is better for their workload. Students will be able to follow the process for planning and designing databases and gain an understanding of the eight different AWS database services. The course will teach students to:

- Apply Database concepts, data management, and data modeling techniques
- Evaluate hosting databases on Amazon EC2 instances
- Identify relational AWS database services and their features
- Identify non-relational AWS database services and their features
- Identify how design differentiates amongst each service
- Understand how to implement management capabilities for each service

Prerequisites include completion of the AWS Technical Essentials course or equivalent experience and working knowledge of AWS services and public cloud implementation. Students should complete the Architecting on AWS course before taking this course.

RED HAT

RH 124: Red Hat System Administration I

This 5-day, instructor-led course is aimed at systems administrators with the fundamental skills and tools to perform systems administrator tasks in a Red Hat environment. This course will teach you how to:

- Navigate the command line
- Manage physical storage
- Install & configure software components & services
- Establish network connections & firewall access
- Monitor & manage processes
- Manage &secure files
- Administrate users and groups
- Access Linux file systems
- Install & use virtualized systems
- Review system log files & journal

This course will prepare you for the RH134 Red Hat System Administration II training course. After completing both courses, students can then take the RHCSA certification exam.

There are no prerequisites for this course. However, we recommend that candidates hold basic systems administration experience and familiarity with Linux operating systems.

RH 134: Red Hat System Administration II

This 4-day, instructor-led course is aimed at junior Linux, network, and systems administrators seeking their RHCSA certification. Students will learn:

- Essential Linux tools
- Operations for running systems
- Local storage configuration
- Creating and configuring file systems
- Users and group management

- Security management

This course will prepare you to take the RHCSA certification exam.

There are no prerequisites for this course. However, we recommend that candidates hold basic systems administration experience and familiarity with Linux operating systems.

RH 199: RHCSA Rapid Track

This 4-day, instructor-led course is aimed at junior Linux, network, and systems administrators seeking their RHCSA certification. Students will learn:

- Essential Linux tools
- Operations for running systems
- Local storage configuration
- Creating and configuring file systems
- Users and group management
- Security management

This course will prepare you to take the RHCSA certification exam.

There are no prerequisites for this course. However, we recommend that candidates hold basic systems administration experience and familiarity with Linux operating systems.

RH 254: Red Hat System Administration III

This 4-day, instructor-led course is aimed at experienced Linux system administrators and RHCSA certification holders seeking their RHCE. Students will learn:

- Systems configuration and management
- Network services
- HTTP/HTTPS
- DNS
- Network file system (NFS)
- Server message block (SMB)
- SMTP
- Secure shell (SSH)
- Network time protocol (NTP)
- Database services

This course will prepare you to take the RHCE certification exam.

Prerequisites: Candidates should hold a RHCSA certification or equivalent experience.

RH 299: RHCE Rapid Track Course

This 4-day, instructor-led course combines the RHCSA Rapid Track Course and Red Hat System Administration III aimed at experienced Linux and Solaris users who want a lab-based review prior to sitting for the RHCE exam. Students will learn:

- Essential Linux tools
- Operations for running systems
- Local storage configuration
- Creating and configuring file systems
- User and group management
- Security management
- Systems configuration and management
- Network services
- HTTP/HTTPS

- DNS
- Network file system (NFS)
- Server message block (SMB)
- SMTP
- Secure shell (SSH)
- Network time protocol (NTP)
- Database services

This course will prepare you to take the RHCE certification exam.

Prerequisites: Candidates should hold a RHCSA certification or equivalent experience.

RH 318: Red Hat Enterprise Virtualization

This 4-day, instructor-led course is aimed at Linux system administrators who manage enterprise servers and VMs, as well as professionals seeking an RHCVA certification. Students will learn how to:

- Install Red Hat enterprise virtualization manager and dependencies
- Utilize Red Hat enterprise virtualization manager
- Install and configure Red Hat
- Virtualization Hypervisor to support guests and attach Red Hat enterprise virtualization manager
- Import installation media to build virtual machines
- Execute management tasks such as collecting logs and developing bookmarks for events.

This course will prepare you to take the Red Hat Certified Virtualization Administrator certification exam.

Prerequisites: Candidates should hold a RHCSA certification or equivalent experience.

RH 401: Red Hat Enterprise Deployment and Systems Management

This 4-day, instructor-led course is aimed at senior Red Hat Enterprise Linux (RHEL) system administrators. Students will learn how to:

- Configure Red Hat Network (RHN) satellite server
- Child channels of base channels
- RHN user types
- Groups and adding group administrators
- Configuration channelsCustom RPM spec files
- Build binary RPM from provided source code
- Create activation keysRPMs to RHN satellite server
- Configure erratoAssign groups, software channels, and configuration channels to activation keys
- Kickstart and provision RHN satellite server clients
- SVN version control repository
- Cobbler
- Manage virtual machines

This course will prepare you to take the Red Hat Certificate of Expertise in Deployment and Systems Management certification exam.

Prerequisites: Candidates should hold a RHCE certification or equivalent experience.

RH 413: Red Hat Server Hardening

This 4-day, instructor-led course is aimed at IT professionals seeking stronger knowledge in RHEL security, implementing RHEL system security, and managing security-critical OS and software updates. Students will learn:

- Review errata and apply them to Red Hat Enterprise Linux

- Use special permissions and file system access control lists
- Manage users and password-aging policy requirements
- Install and configure Red Hat Identity Management tools
- Understand system auditing

This course will prepare you to take the Red Hat Certificate of Expertise in Server Hardening certification exam.

Prerequisites: Candidates should hold RHCSA and RHCE certifications or equivalent experience.

RH 442: Red Hat Enterprise Performance Tuning

This 4-day, instructor-led course is geared toward experienced Linux system administrators. Students will learn:

- Tuning for use-case scenarios (for example, HPC, large memory, database, and file server)
- Tuning for power consumption
- Tuning virtual machines (host and guest)
- Tuning memory and caches
- Tuning CPU and memory utilization using cgroups
- Gathering performance metrics and other data for tuning purposes

This course will prepare you to take the Red Hat Certificate of Expertise in Performance Tuning certification exam.

Prerequisites: Candidates should hold a RHCE certification or equivalent experience.

RH 436: Red Hat Enterprise Clustering and Storage Management

This 4-day, instructor-led course is aimed at IT professionals seeking stronger knowledge in RHEL security, implementing RHEL system security, and managing security-critical OS and software updates. Students will learn how to:

- Configure high-availability clusters using physical and virtual systems
- Manage logical volumes in clustered environments
- Configure GFS file systems
- Configure iSCI target sand initiators
- Manage device configuration with UDEV
- Build and manage Red Hat storage clusters

This course will prepare you to take the Red Hat Certificate of Expertise in Clustering and Storage Management certification exam.

Prerequisites: Candidates should hold RHCSA and RHCE certifications or equivalent experience.

JB 225: JBoss Enterprise Application Development

This 4-day, instructor-led course is aimed at Linux systems administrators who manage enterprise servers and VMs, as well as professionals seeking a RHCVA certification. Students will learn how to:

- Build robust enterprise applications using JBoss middleware
- Build secure enterprise applications
- Integrate applications with back-end enterprise information and messaging systems
- Test with Arquillian
- Use Contexts and Dependency Injection (CDI) for seamless multi-tier applications
- Understand administration tasks for developers
- Leverage JBoss Developer Studio tools

This course will prepare you to take the Red Hat Certified Virtualization Administrator certification exam.

Prerequisites: Candidates should hold a RHCSA certification or equivalent experience.

JB 248: JBoss Application Administration I

This 4-day, instructor-led course is aimed at systems administrators without much experience with Red Hat JBoss or those fluent in version 5 and wanting to master the new application platform 6. Students will learn how to:

- Install and manage the JBoss enterprise application platform
- Configure JBoss EPA domains, hosts, and servers
- Configure JBoss EPA to support clustered and HA operation
- Manage and monitor JBoss EPAs
- Configure for Java messaging service (JMS)
- Manage applications
- Configure JBoss web connectors
- Configure JBoss enterprise application platform security

This course will prepare you to take the Red Hat Certified JBoss Administration certification exam.

Prerequisites: Candidates should have minimal systems administration experience with various operating systems and an understanding of fundamental hardware and networking.

JB 325: JBoss Enterprise Application Development II

This 4-day, instructor-led course is aimed at Java developers and Java architects. Students will learn how to:

- Developing advanced web applications
- Developing for JBoss EAP 6
- Extensive review of web services
- Securing Java EE applications
- Performance tuning

There is no exam associated with this course.

Prerequisites: Candidates should have experience with Java programming and Java EE, at least 2 years with each.

JB 437: JBoss A-MQ Development and Deployment

This 2-day, instructor-led course is for Java developers and architects. Students will learn:

- Topologies
- Protocols
- Message groups virtual destinations
- Failover
- High availability

There is no exam associated with this course.

Prerequisites: Candidates should have a strong grasp of Java concepts and terminology.

JB 348: JBoss Application Administration

This 4-day, instructor-led course is for systems administrators who manage the deployment and administration of JBoss Enterprise Application Platform 6. Through this course, students will learn:

- Install JBoss Enterprise Application Platform 6 and optional components
- Learn about clustering with an emphasis on tuning
- Deploy to production and cloud environments
- Script with CLI
- Monitor and manage resources for the Enterprise Application Platform
- Manage, cluster, and tune a HornetQ messaging system

- Configure security settings that include authentication, authorization, networking, and management interfaces

There is no exam associated with this course.

Prerequisites: Candidates should have completed JBoss Application Administration and received RHCJA for Enterprise Application Platform 6.

CL 210: Red Hat OpenStack Administration

This 4-day, instructor-led course is for Linux and cloud systems administrators and RHCSA holders. Students will learn:

- An overview of the Red Hat Enterprise Linux OpenStack Platform architecture
- Install Red Hat Enterprise Linux OpenStack Platform using Packstack and Foreman
- Deploy each Red Hat Enterprise Linux OpenStack Platform service manually
- Manage users and projects
- Deploy instances and use Heat to deploy and customize instances

This course prepares you for the Red Hat Certified Administrator in OpenStack exam.

There are no prerequisites for this course. However, relevant certifications or equivalent experience is helpful.

CL 275: OpenShift Enterprise Application Development

This 2-day, instructor-led course is for Java and Python developers, system administrators with developer skills, and DevOps professionals. Students will learn:

- Create Python applications using rhc
- Create JBoss applications using Red Hat JBoss Developer Studio
- Create cartridges to expand OpenShift Enterprise capabilities
- Troubleshoot problems in OpenShift Enterprise environment
- Identify performance problems

There is no exam associated with this training course.

Prerequisites: Candidates should have systems administration and Java and Python programming skills.

CL 280: OpenShift Enterprise Administration

This 2-day, instructor-led course is for Linux system administrators, storage administrators, and RHCE professionals. Students will learn to:

- Deploy OpenShift Enterprise infrastructure
- Deploy OpenShift Enterprise node
- Monitor OpenShift Enterprise infrastructure
- Deploy applications to OpenShift Enterprise
- Customize application platforms
- Manage applications running on OpenShift Enterprise
- Manage deployment environments
- Configure automatic and manual scaling for OpenShift Enterprise applications
- Obtain usage analytics

This course prepares students for the Red Hat Certificate of Expertise in Platform-as-a-Service certification exam.

Prerequisites: Candidates should have the RHCSA and RHCE certifications or the equivalent knowledge.

VMWARE

VMware vSphere: Install, Configure, Manage [V6.5] (VICM6.5)

This 5-day, instructor-led course is for system administrators and system engineers. Students will learn to:

- Describe the software-defined data center
- Explain the vSphere components and their function in the infrastructure
- Deploy an ESXi host
- Deploy VMware vCenter Server Appliance
- Use a local content library as an ISO store and deploy a virtual machine
- Describe the vCenter Server architecture
- Use vCenter Server to manage an ESXi host
- Describe virtual networks with vSphere infrastructure with VMware vSphere
- Configure standard switch policies
- Use vCenter Server to manage various types of host storage
- Manage virtual machines, templates, clones, and snapshots
- Create. clone and export a vApp
- Describe and use the content library
- Migrate virtual machines with VMware vSphere Storage vMotion to migrate virtual machine storage
- Use VMware vSphere Storage vMotion to migrate virtual machine storage
- Monitor resource usage and manage resource pools
- Use esxtop to identify and solve performance issues
- Discuss the VMware vSphere High Availability cluster architecture
- Configure vSphere HA
- Manage vSphere HA and VMware vSphere Fault Tolerance
- Use VMware vSphere Replication and VMware vSphere Data Protection to protect virtual and perform data recovery
- Use VMware vSphere Distributed Resource Scheduler cluster to improve host scalability
- Use VMware vSphere Update Manager to apply patches and perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server Operations

Prerequisites: Candidates should have system administration experience on MS Windows or Linux operating systems

VMware vSphere: Install, Configure, Manage [V7] (VICM 7)

This 5-day, instructor-led course is for system administrators and system engineers. Students will learn to:

- Describe the software-defined data center (SDDC)
- • Explain the vSphere components and their function in the infrastructure
- • Describe the benefits and capabilities of VMware Skyline
- • Install and configure ESXi hosts
- • Deploy and configure VMware vCenter® Server Appliance™
- • Use VMware vSphere® Client™ to manage the vCenter Server inventory and the vCenter Server
- configuration
- • Manage, monitor, back up, and protect vCenter Server Appliance
- • Create virtual networks with vSphere standard switches
- • Describe the storage technologies supported by vSphere
- • Configure virtual storage using iSCSI and NFS storage
- • Create and manage VMware vSphere® VMFS datastores
- • Use the vSphere Client to create virtual machines, templates, clones, and snapshots
- • Create a content library and deploy virtual machines from templates in the library
- • Manage virtual machine resource use
- • Migrate virtual machines with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
- • Create and manage a vSphere cluster that is enabled with VMware vSphere® High Availability and
- VMware vSphere® Distributed Resource Scheduler™
- • Discuss solutions for managing the vSphere life cycle

- • Use VMware vSphere® Lifecycle Manager™ to perform upgrades to ESXi hosts and virtual machines

Prerequisites: Candidates should have system administration experience on MS Windows or Linux operating systems

NETAPP

Managing NAS Performance on Clustered Data ONTAP (NASPAD)

This 5-day, instructor-led course is for professionals who manage NetApp storage systems and need a deeper understanding of protocols and performance in a clustered Data ONTAP environment. Students will learn to:

- Define and describe NFS protocol versions
- Configure clustered ONTAP 9 for NFSv3,NFSv4,and NFSv4.1 with parallel NFS (pNFS)
- Configure Kerberos in a Linux and NetApp ONTAP 9 environment using Windows Active Directory authentication
- Discuss performance management and troubleshooting for NetApp storage systems and clients
- Explain the CIFS and SMB protocol
- Demonstrate the Windows PowerShell CLI
- Configure SMB features using ONTAP 9 software
- Create and manage SMB shares and sessions
- Secure SMB sessions
- Configure ONTAP for multiprotocol data access
- Discuss SMB advanced topics, such as opportunistic locks (oplocks), BranchCache, auditing, group policy, automatic home shares, symbolic links (symlinks), and widelinks
- Describe how data flows through the network and protocol layers of clustered Data ONTAP
- Define performance-related terms and describe basic methodologies
- Identify the methods that can be used to monitor and analyze storage system performance
- Explain how methods and tools can be used to collect performance data
- Use command output to analyze system performance
- Use command output from case studies to identify performance bottlenecks
- Implement configuration for recommended practices for resiliency and performance
- Locate resources and information that help you maximize system performance

Prerequisites: Candidates should have ONTAP Cluster Administration and Data Protection Bundle.

ONTAP 9 Cluster Administration (ONTAP9ADM)

This 3-day class teaches basic administration and configuration of an ONTAP cluster. Students will learn how to do the following:

- Describe how ONTAP fits into the NetApp Cloud and Data Fabric strategy
- Identify supported ONTAP configurations
- Create a cluster
- Manage ONTAP administrators
- Configure and manage storage resources
- Configure and manage networking resources
- Create and configure a storage virtual machine (SVM)
- Create and manage FlexVol volumes
- Implement storage efficiency features
- Create protocol servers with an SVM
- Upgrade and revert ONTAP patches and releases

There are no prerequisites for this course.

ONTAP 9 Cluster Administration and Data Protection Bundle (CDOTDP9)

This 5-day class teaches basic administration and configuration of an ONTAP cluster. Students will learn how to do the following:

- Describe how ONTAP 9 fits into NetApp's Cloud and Data Fabric strategy
- Identify supported ONTAP platforms
- Define ONTAP cluster components
- Create a cluster
- Manage ONTAP administrators
- Configure and manage storage resources
- Configure and manage networking resources
- Describe a Storage Virtual Machine's (SVM's) role in NetApp's storage architecture
- Create and configure an SVM
- Create and manage FlexVols
- Implement storage efficiency features
- Create protocol servers within an SVM
- Upgrade and revert ONTAP patches and releases
- Describe the levels at which ONTAP protects data
- Describe the ONTAP 9 data protection features
- Understand the various data mirroring relationships available with ONTAP 9
- Configure and operate SnapMirror and SnapVault data replication
- Demonstrate Storage Virtual Machine data protection
- Explain the components and configuration involved with SyncMirror and MetroCluster
- Describe NDMP protocol operation, configuration, and management

There are no prerequisites for this course.

ONTAP 9 Data Protection Administration (DATAPROT9)

This 2-day class teaches basic administration and configuration of an ONTAP cluster. Students will learn how to do the following:

- Describe NetApp protection technology and the NetApp integrated data protection solutions that are supported in ONTAP 9
- Design, implement, and manage ONTAP 9 SnapMirror replication
- Perform storage virtual machine disaster recovery setup and operation
- Design, implement, and manage ONTAP 9 SnapVault replication
- Use the OnCommand System Manager to set up and manage backup and restore operation
- Explain the components and configuration involved with SyncMirror and MetroCluster
- Describe how SyncMirror software can be used to protect data at the aggregate level
- Describe how to implement the NDMP protocol in ONTAP 9 software

There are no prerequisites for this course.

NETWORK SKILLS

Fundamentals of Communications and Networking

Our 4-day, instructor-led course is designed for cyber security professionals. It will teach you:

- About today's networks and the way they support the evolving requirements of different organizations
- To design a network that will meet an organization's performance needs

Prerequisites: Before taking this course, you should

Network Fundamentals

Network Fundamentals is a four-day instructor-led class providing a comprehensive overview of networking concepts. Attendees will explore network architectures, protocols, and services with practical exercises to reinforce learning.

- Gain a comprehensive understanding of network fundamentals.
- Explore network architectures, protocols, and services through practical exercises.
- Build a solid foundation for further study or work in networking.

There are no prerequisites for this course.

Introduction to IPv6

This 3-day, instructor-led course is aimed at IT networking professionals responsible for transitioning a network from the Internet Engineering Task Force (IETF) IPv4 to IPv6. It covers:

- Auto-configuration of IP addresses
- Neighbor Discovery
- Multicasting routing & group management
- Path MTU discovery
- Mobile IPv6 based on ICMPv6

This course will prepare you to effectively manage and defend an IPv6 network.

Prerequisites: Before enrolling in this course, you must have the CCNA® and CCNP®-ROUTE certifications. You should also have experience working with the Windows operating system.

IP6FD: IPv6 Fundamentals, Design, and Deployment v3.0

This 5-day, instructor-led course is geared toward IT networking professionals responsible for transitioning to an IPv6 network. It focuses on various IPv6 implementation processes regarding:

- Design
- Operation
- Addressing
- Routing
- Services
- Transition

This course will fully prepare you to effectively deploy IPv6 within your organization.

Prerequisites: Before taking this course, you should have the CCNA® Certification and be familiar with the Microsoft and Windows operating systems.

Multi-Protocol Label Switching (MPLS)

This 3-day, instructor-led course is for network engineers and system administrators. Students will learn:

- The features, functions, and benefits of MPLS
- Basic MPLS operation
- The future of MPLS

Prerequisites: Candidates should have some experience in the field of networking.

IT SKILLS

Hands-on Linux Training

Hands-on Linux Training is a three-day instructor-led class that offers practical experience with the Linux operating system. Participants will engage in hands-on activities to learn about Linux installation, configuration, system management, and troubleshooting.

- Gain practical experience with Linux installation, configuration, and system management.
- Learn troubleshooting techniques for common issues encountered in Linux environments.
- Develop a deeper understanding of Linux command line tools and utilities.

There are no prerequisites for this course.

Information Technology Asset Management (ITAM)

This 3-day instructor-led course is a practical, comprehensive, and authoritative guide to software and IT asset management. This course can help organizations achieve major benefits in risk management, cost reduction, enhanced security, and improved service delivery. It will facilitate the integration of SAM/ITAM with service management and information security management while linking to organizational objectives. By the completion of this course, participants will know how to:

- Define software and IT asset management
- Identify the four key areas of ITAM
- Use ITAM best practices
- Define information and people as assets
- Create sound asset management policies
- Effectively communicate their organization's ITAM goals

There are no prerequisites for this course.

Introduction to Blockchain

Introduction to Blockchain is a two-day instructor-led class that provides a foundational understanding of blockchain technology and its business implications. The course covers the basics of how blockchains work, including cryptocurrencies, smart contracts, and decentralized applications. Attendees will gain insights into how blockchain can be used to increase transparency and efficiency in various industries.

- Grasp the basic principles of blockchain technology and its key components.
- Explore the applications of blockchain, including cryptocurrencies and smart contracts, across different sectors.
- Understand the potential of blockchain to revolutionize transparency and efficiency in business processes.

There are no prerequisites for this course.

PowerShell in Depth

Our 5-day, instructor-led course covers the following topics:

- Task automation
- HTML and XML data management
- Background jobs and scheduling
- PowerShell security
- Packaging and deploying scripts
- Scripting conventions
- .NET frameworks in PowerShell scripts

Prerequisites: Before taking this course, you should have some experience with PowerShell administration.

CLOUD TECHNOLOGIES

Cloud Essentials

Cloud Essentials is a two-day instructor-led class that provides an overview of cloud computing concepts, models, and technology. Participants will explore the benefits and challenges of cloud adoption, as well as the fundamental components such as SaaS, PaaS, and IaaS. By the end of the course, attendees will understand the best practices for cloud service selection and management.

- Understand the key concepts and models of cloud computing, including SaaS, PaaS, and IaaS.
- Evaluate the benefits and challenges of cloud adoption for businesses.
- Apply best practices for selecting and managing cloud services effectively.

There are no prerequisites for this course.

Cloud Manager

This 3-day instructor-led course provides the basic knowledge and skills needed to analyze, select, monitor, and protect cloud resources in a vendor-neutral format; this includes vulnerability management, network reconnaissance and monitoring, connecting networks to clouds, cloud migration, secure policies and procedures, host and network security, identity management systems, and incident response. Upon completion of this course, students will be able to:

- Understand the possibilities offered by cloud and serverless computing for organizations.
- Invest in hands-on courses to help develop the skills to diagnose and troubleshoot while testing, deploying, and monitoring complex IT environments.
- Discuss the potential computing, environmental, legal, and ethical issues associated with cloud computing.
- Present cloud computing from the perspective of users, researchers, and decision-makers.

There are no prerequisites for this course.

PROGRAMMING

PYTHON

Introduction to Python 3

In this 3-day Python training course, students who are new to Python will learn the following:

- To write and run Python scripts
- File operations, regular expressions, working with binary data
- To use the extensive functionality of Python modules

There are no prerequisites for this course.

Advanced Python 3 Programming

In this 3-day Python training course, students already familiar with Python programming will learn the following:

- Advanced Python techniques such as Jupyter Notebook, the Collections module
- Mapping and filtering, lambda functions, advanced sorting
- Working with regular expressions in Python
- Working with databases, CSV files, JSON, and XM
- Writing object-oriented code, testing, and debugging
- Unicode and text encoding.

Prerequisites: Students should be familiar with Python programming.

Python Deep Learning

This 5 day, instructor-led course is designed for ISEA engineers and operation research analysts who need the software engineering skillset: particularly research and development engineers and analysts. The engineers will be using the software skillset to write deep learning scripts for CBM+, data analysis, ship data, etc. At the conclusion of training, students will be more proficient with:

- Basic Python programming
- How to use Numpy and Matplotlib in the context of deep learning.
- How to use Jupyter Notebook with a remote server.
- The principles and practices of supervised learning and deep learning.
- How to use neural networks to solve regression and classification problems.
- How to use unsupervised learning for visualization and dimensionality reduction.
- How to use convolutional neural networks for image classification. • How to use TensorFlow, TensorBoard, and Keras.
- How to optimize and tune the performance of deep neural networks.
- How to prepare datasets and manage the process around deep learning.
- Deep learning concepts and techniques in current use such as gradient descent algorithms, learning curves, regularization, dropout, batch normalization, the Inception architecture, and residual networks.

There are no prerequisites for this course.

Python Security for Practitioners

In this 4-day Python training course, students already familiar with Python programming will learn the following:

- Create a trojan command-and-control using GitHub

- Detect sandboxing and automate common malware tasks, like keylogging and screenshotting
- Escalate Windows privileges with creative process control
- Use offensive memory forensics tricks to retrieve password hashes and inject shellcode into a virtual machine
- Extend the popular Burp Suite web-hacking tool
- Abuse Windows COM automation to perform a man-in-the-browser attack
- Exfiltrate data from a network most sneakily

Prerequisites: Students should be familiar with Python programming.

RUBY

Ruby Programming

This 3-day course introduces students to the Ruby programming language, which is the basics of the Ruby on Rails web development framework. Students will learn how to develop code that is elegant and maintainable. They will explore how to write solid object-oriented code using best practices. In this course, students will learn about:

- Environment setup
- Syntax
- Program structures
- Modules and mixins
- File I/O

There are no prerequisites for this course.

Advanced Ruby Programming

Advanced Ruby Programming is a three-day instructor-led class that delves deeper into the Ruby programming language for developers looking to enhance their expertise. The course covers advanced topics such as metaprogramming, DSL creation, and performance optimization. Participants will engage in hands-on exercises to solidify their understanding and ability to write more complex and efficient Ruby code.

- Explore advanced Ruby programming concepts, including metaprogramming and DSL creation.
- Implement performance optimization techniques to enhance the efficiency of Ruby applications.
- Apply advanced coding practices in hands-on projects to solve complex programming challenges.

There are no prerequisites for this course.

DRUPAL

Developing Drupal 7 Websites: Developer Immersion

In this 4-day Drupal 7 training course, students new to Drupal will learn the following:

- Drupal 7 installation
- To plan sites that are easy to use and manage
- To add content
- To incorporate powerful site features without programming
- To run your site safely and efficiently

There are no prerequisites for this course.

Advanced Python 3 Programming

In this 3-day Python training course, students already familiar with Python programming will learn the following:

- Advanced Python techniques such as Jupyter Notebook, the Collections module
- Mapping and filtering, lambda functions, advanced sorting
- Working with regular expressions in Python
- Working with databases, CSV files, JSON, and XM
- Writing object-oriented code, testing, and debugging
- Unicode and text encoding.

Prerequisites: Students should be familiar with Python programming.

Developing Drupal 8 Websites: Developer Immersion

In this 4-day Drupal 8 training course, students new to Drupal will learn the following:

- How to better manage content using custom blocks and views
- To display content in multiple ways, taking advantage of display modes
- To create custom modules with YAML and Symfony 2
- To translate content using the new multilingual capabilities
- To use RESTful services and JavaScript frameworks to build headless websites
- To manage Drupal configuration from one server to another easily

Students should have previous experience with Drupal to get the most from this course.

Learn Drupal 7: Site Building and Theming Best Practices

In this 2-day Drupal 7 training course, front-end developers and designers will learn the following:

- How to manage users
- How to add custom content and manage content
- Content references and relationships
- Content flagging and bookmarking
- Maintain a secure website

Students should have previous experience with Drupal to get the most from this course.

Learn Drupal 8: Site Building and Theming Best Practices

In this 2-day Drupal 8 training course, front-end developers and designers will learn the following:

- To create beautiful responsive Drupal 8 websites using Twig
- Mater theme administration, custom block layouts, view, and the Twig template structure

Students should have previous experience with Drupal to get the most from this course.

SCRUM ALLIANCE

CSM - Certified ScrumMaster Certification

This 2-day instructor-led training and certification boot camp provides participants with a comprehensive understanding of the Scrum methodology while specifically reviewing the behaviors expected of a Scrum Master. In this course, participants will learn:

- The details on Scrum roles: Team Member, Product Owner, Scrum Master
- How to gain an understanding of the foundational/critical concepts of Scrum with our Certified Scrum Trainer® instructional program
- How to apply empirical thinking to your project work
- How a teamand#;s productivity can be adjusted to account for its composition
- How to appreciate the importance of organizational agreement on software readiness
- Why the Scrum Master role can be the most satisfying as well as the most difficult job on a project

- How conflict resolution plays a critical role in Scrum
- How to work on a real-world Scrum project live in the classroom
- How to practice and utilize the Scrum Framework
- How to know when software is “Done” under Scrum

There are no prerequisites for this course.

CSPO - Certified Scrum Product Owner Certification

This 2-day instructor-led training and certification boot camp provides a comprehensive understanding of this agile product development methodology while specifically reviewing the behaviors expected of a Product Owner. After successfully completing this class, participants will be registered with the Scrum Alliance as Certified Scrum Product Owners (CSPOs). PMPs can also claim 16 PDUs with the PMI.

There are no prerequisites for this course.

CSD - Certified Scrum Developer Certification

This 2-day instructor-led training and certification boot camp provides participants with a solid understanding of the key concepts of the Agile methodology and scrum ceremonies. After taking this course, participants will be able to:

- Define the core concepts of Agile Software Development
- Participate in Sprint Planning and Execution
- Implement Test Driven Development
- Incorporate Continuous Inspection
- Implement Continuous Integration

Prerequisites: Students taking this course should have previously completed the SCM course. They must bring a laptop to participate in hands-on activities

Disciplined Agile Scrum Master Certification

This 2-day instructor-led course will help you understand all the benefits of Agile, and make it work for you and your organization. DASM equips you to successfully lead agile teams, thereby future-proofing your career in a world in which agile is fast becoming the way forward. This course is also recommended to help those preparing to take the DASM certification exam. At the completion of this course, participants will be able to:

- Grasp the fundamentals of Agile and Lean and how you can practically use both approaches to produce value for your teams.
- Explore multiple agile and lean techniques from methods such as Scrum, Kanban, SAFe®, and more.
- Understand how to put these techniques into practice and ensure successful agile implementation.
- Appreciate the DA™ mindset and its underlying principles, such as pragmatism, the power of choice, and adapting to context.
- Learn how to apply the Disciplined Agile tool kit to discover the most effective way of working (WoW) for you, and your team in your unique situation.

There are no prerequisites for this course.

C, C++ & C#

C Programming

In this 3-day course, C programmers will learn the following:

- About basic and derived data types
- About parameter passing
- About standard and low-level file I/O

- How to work with malloc and calloc
- About the memory layout of C programs
- About linked lists

Students should have previous experience programming in C.

Introduction to C Programming

In this 2-day course, C programmers will learn the following:

- Problem analysis
- Logic design
- Program coding
- Testing and debugging

No previous programming experience is necessary.

Intermediate C Programming

In this 5-day course, C programmers will learn the following:

- Write a variety of C programs
- Understand variable attributes such as local, global, external, and static
- Write programs that perform file and interactive I/O
- Understand how C implements data structures

Prerequisites: Before taking this class, students should take Introduction to C Programming or have the equivalent experience.

C++ Programming

In this 5-day course, non-programmers will learn the following:

- About the core C features of C++
- C++ class construct
- About memory management, scope, and access control mechanisms
- About Polymorphisms and virtual functions and inheritance

No previous programming experience is necessary.

C++ Beginner

This 4-day instructor-led course begins by introducing participants to the C++ compilation model and syntax. Participants will then analyze data types, variable declaration, scope, and control flow statements. Participants will learn how variables, references, and pointers are used. As students advance through the course, they will evaluate the advantages of C++ programming and create templates for generic algorithms that will work with any type. By the end of this course, participants will be able to write code as well as improve and manage systems. At the end of this course, participants will be able to:

- Create a C++ compilation model
- Write functions and classes
- Write code with templates
- Analyze containers
- Identify C++11, C++14, and C++17 features
- Understand the core language associated with C++
- Implement object-oriented programming in C+

There are no prerequisites for this course.

C++ Intermediate

This 4-day instructor-led course provides C++ programmers with more advanced real-world development knowledge and the skills to create clean code. Participants will get an in-depth look at C++17 features, then learn about modular programming, GUI programming, smart pointers, multithreaded programming, and debugging. At the end of this course, students will learn how to:

- Create modular C++ applications
- Manage C++ applications
- Implement Cucumber and Google Test/Mock
- Operate frameworks with C++
- Analyze C++17 features
- Develop GUI applications in C++
- Organize cross-platform applications using C++

Prerequisites: Students taking this course should have completed C++ Beginner or have equivalent knowledge.

C++ Advanced

This 4-day, instructor led course begins will teach participants advanced C++ concepts by helping students understand the C++ type system. Participants will learn how to control the flow of execution, capture data, and pass data around. Participants will also understand how to use advanced lambdas, captures and express common API design patterns in C++, as well as identify how to use resources to implement memory alignment into their code. At the end of this course, students will learn how to:

- Analyze workflows of C++
- Identify different C++ coding methods
- Manage programs
- Link object files as a dynamic library
- Evaluate SFINAE, constexpr if expressions, and variadic templates
- Determine tools for resource management

Prerequisites: Students taking this course should have completed C++ Intermediate or have equivalent knowledge.

Efficient C++ Programming

Efficient C++ Programming is a five-day instructor-led class that focuses on advanced programming techniques to optimize C++ code for performance. Participants will explore efficiency in memory management, algorithm optimization, and system architecture. This course is ideal for experienced C++ programmers looking to enhance the speed and resource management of their applications.

- Learn advanced techniques for optimizing C++ code for better performance and efficiency.
- Explore memory management strategies and algorithm optimization in C++.
- Enhance understanding of system architecture to improve application speed and resource usage.

There are no prerequisites for this course.

Programming in C#

This 5-day instructor-led course will provide students with the knowledge and skills they need to develop C# applications for the Microsoft .NET Platform. The course focuses on C# program structure, language syntax, and implementation details. C# was created to be the programming language best suited for writing enterprise applications for .NET. C# combines the high productivity of Microsoft Visual Basic with the raw power of C++. It is a simple, object-oriented, and type-safe programming language that is based on the C and C++ family of languages. After completing this course, students will be able to:

- Explain the purpose of the .NET Framework, and understand how to use C# and Visual Studio to build .NET Framework applications.
- Understand the syntax of basic C# programming constructs.
- Create and call methods in a C# application.

- Catch, handle, and throw exceptions.
- Perform basic file IO operations in a C# application.
- Create and use new types (enumerations, classes, and structures), and understand the differences between reference types and value types.
- Control the visibility and lifetime of members in a type.
- Use inheritance to create new reference types.
- Manage the lifetime of objects and control the use of resources.
- Define properties and indexers to encapsulate data, and define operators for this data.
- Decouple an operation from the method that implements an operation, and use these decoupled operations to handle asynchronous events.
- Use collections to aggregate data, and use Generics to implement type-safe collection classes, structures, interfaces, and methods.
- Implement custom collection classes that support enumeration.
- Query in-memory data by using LINQ.
- Integrate code written by using a dynamic language such as Ruby and Python, or technologies such as COM, into a C# application

Prerequisites: This course is targeted at professional developers with at least 12 months of experience programming in an object-oriented environment. Participants should have existing knowledge of C++ or Java and the Visual Studio IDE.

ADDITIONAL PROGRAMMING LANGUAGES

Java Programming

In this 5-day course, non-programmers will learn the following:

- About the Java language syntax
- About the object-oriented feature of the Java language
- To use I/O streams, collections, Swing GUI programming, threads, and accessing a database with JDBC

Professional programming experience in C, C++, or C# is required.

Assembly Language Programming

This 4-day instructor-led course will teach developers to convert to Intel Architecture machine code using an assembler. Participants will learn to do the following:

- Obtain a deeper understanding of the underlying platform
- Understand binary arithmetic and logic operations
- Create elegant and efficient code in Assembly language
- Understand how to link Assembly code to the outer world
- Obtain an in-depth understanding of relevant internal mechanisms of Intel CPU
- Write stable, efficient, and elegant patches for running processes

There are no prerequisites for this course.

Beginner Puppet

This 4-day instructor-led course will introduce the participant to the features of Puppet. The participants will develop the skills needed to administer Puppet as well as learn how to use Puppet code to manage cloud resources. This course is ideal for system administrators and developers. At the end of this course, participants will be able to:

- Understand the latest Puppet 5 features
- Install and set up Puppet and discover the latest and most advanced features
- Configure, build and run containers in production using Puppet's industry-leading Docker support
- Deploy configuration files and templates at super-fast speeds and manage user accounts and access control

- Automate your IT infrastructure
- Use the latest features in Puppet 5 onward and its official modules
- Manage clouds, containers, and orchestration
- Get to know the best practices to make Puppet more reliable and increase its performance

There are no prerequisites for this course.

Ansible

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- To gain an in-depth understanding of how Ansible works
- To automate the Ansible playbook with encrypted data
- Access and manipulate variable data within playbooks
- To explore the Playbook debugger and Ansible Console
- To work with cloud infrastructure providers and container systems

Prerequisites: Before taking this course, students should have minimal to significant experience with network administration.

SOFTWARE DEVELOPMENT

Advanced Software Architecture

Advanced Software Architecture is a four-day instructor-led class designed to expand the knowledge of experienced software architects. This course explores advanced design patterns, architectural styles, and methodologies for creating scalable and resilient systems. Attendees will learn to make strategic decisions in software design that effectively address complex technical challenges.

- Analyze and apply advanced design patterns and architectural styles in software development.
- Develop strategies for creating scalable and resilient software systems that can withstand evolving business needs.
- Make informed architectural decisions that address complex technical challenges and promote long-term system stability.

There are no prerequisites for this course.

Continual Delivery

Continual Delivery is a two-day instructor-led class that teaches the principles and practices of continuous delivery in the software development lifecycle. Attendees will learn how to implement automated systems to improve the release process, ensuring that software can be reliably released at any time. This course aims to help developers and operations professionals enhance their deployment strategies for better workflow efficiency.

- Master the principles of continuous integration and continuous delivery (CI/CD) to streamline software development and deployment.
- Implement automation tools and techniques to ensure reliable software release processes.
- Develop strategies to integrate continuous delivery practices into existing development workflows.

There are no prerequisites for this course.

Design and Develop Graphical User Interface (UI) Using QT

Design and Develop Graphical User Interface (UI) Using QT is a five-day instructor-led class that teaches the fundamentals of creating user interfaces with the QT framework. Attendees will learn to design and build interactive and user-friendly GUIs for software applications. The course provides hands-on experience with QT tools and best practices in UI development.

- Acquire the skills to design and develop user-friendly graphical user interfaces using QT.
- Gain practical experience with QT tools and libraries for UI development.
- Understand best practices and principles in creating effective and interactive GUIs.

There are no prerequisites for this course.

DevSecOps Bootcamp

DevSecOps Bootcamp is a three-day instructor-led class that introduces the principles and practices of integrating security into DevOps processes. Attendees will learn how to incorporate security at every phase of software development, from design to deployment. This intensive course aims to build a culture of security and collaboration among development, security, and operations teams.

- Understand the principles and practices of DecSecOps for integrating security into DevOps.
- Learn to incorporate security measures from the initial stages of software development.
- Promote a culture of security and collaboration across development, security, and operations teams.

There are no prerequisites for this course.

Docker

Our 3-day, instructor-led course will include lectures and exercises to teach students the following:

- To develop containerized applications using Docker
- To build Docker images from containers and launch them
- To develop Docker images and containers using Dockerfiles
- To use Docker volumes to share data
- Frequently used commands in Docker

Prerequisites: Before taking this course, students should have minimal to significant experience with software development.

GitLab DevSecOps Fundamentals

This 4-day instructor-led course will focus on the implementation of the GitLab tool. GitLab allows Developers to use tools within their platform to perform collaboration, integration and issue management. This course will begin by introducing Gitlab and what it is. Then, the history of GitLab will be reviewed alongside past editions of GitLab. Following this review, the course will discuss the advantages and disadvantages that occur when using GitLab and its features. At the completion of this course, participants will be able to:

- Discuss the history of Gitlab and its components
- Install and configure Gitlab
- Identify GitLab UI options and configuration
- Implement the use of Kubernetes and Docker containers
- Perform Migration from GitHub
- Compare and contrast CVS and Gitlab
- Compare and contrast SVN and Gitlab
- Manage repositories
- Understand how Gitlab and DevOps integrate and work together
- Review the software development life cycle
- Identify the parts and tools available within the GitLab architecture
- Utilize source control, issue tracking, CI/CD, and monitoring
- Use GitLab CI/CD to troubleshoot errors and catch bugs
- Perform continuous integration

There are no prerequisites for this course, but the material assumes that participants have prior experience with software development workflow.

There are no prerequisites for this course.

Linux for Developers

Our 5-day, instructor-led course will teach students how to:

- Use the standard Linux C libraries
- Utilize most of the standard Linux development tools
- Store data under Linux using DBM and MySQL database systems
- Build graphical user interfaces for the X Windows system using GTX and QT libraries
- Develop their own real-world applications

Prerequisites: Before taking this course, students should have minimal to significant experience in Systems Administration, specifically in Windows work environments, and understand security best practices.

Unit Testing with Visual Studio 2017

This 3-day workshop ensures that students learn how to effectively use Visual Studio 2017 to enhance productivity while simplifying the most common tasks, allowing more time to focus on projects. This course teaches students what it takes to put it to work for your projects. Students will learn to use XAML tools to build classic WPF apps and UWP tools to build apps targeting Windows 10. They will learn about .NET Core and then explore NuGet, the package manager for the Microsoft development platform. In addition, students will learn the debugging and live unit testing techniques that come with the IDE. Finally, they will adapt Microsoft's implementation of cloud computing with Azure, and the Visual Studio integration with Source Control repositories.

Prerequisites: Students should have knowledge of and experience with information security systems and best practices.

Unit Testing with Android Studio

This 4-day workshop introduces the Android Studio software, then moves straight into UI development using the sophisticated WYSIWYG layout editor and XML code to design and test complex interfaces for a wide variety of screen configurations. In addition, the course covers application logic development, exploring the latest APIs provided by the SDK. One of Android Studio's greatest features is the large number of third-party plugins available for it, and this course explores the most useful of these, along with samples and libraries that can be found on GitHub. Finally, the course deals with the final stages of development: building and distribution.

Prerequisites: Students should have knowledge of and experience with information security systems and best practices.

TECHNICAL SKILLS

MICROSOFT OFFICE SUITE

Microsoft Word 2016 Introduction

This 1-day, instructor-led course is designed to teach you about the tools and features of Microsoft Word 2016. You will learn how to:

- Create documents
- Format text
- Insert pictures, headers, and footers
- Create and format tables

There are no prerequisites for these courses.

Microsoft Word 2016 Intermediate

This 1-day, instructor-led course is designed to teach you to use the more advanced tools and features of Microsoft Word 2016. You will learn how to:

- Use Shapes, WordArt, and SmartArt
- Manage Documents
- Insert References and Hyperlinks
- Save and Share Documents

There are no prerequisites for these courses, however, MS Word 2016 Introduction might be helpful.

Microsoft Word 2016 Advanced

This 1-day, instructor-led course is designed to teach you advanced skills for power users of Microsoft Word 2016. You will learn:

- Advanced formatting
- Advanced document management
- Using references
- Creating mailings
- Creating and using macros and forms

MS Word 2016 Introduction and Intermediate will be helpful for this class.

Microsoft Word 2019 Introduction

This 1-day, instructor-led course is designed to teach you about the tools and features of Microsoft Word 2019. You will learn how to:

- Create documents
- Format text
- Insert pictures, headers, and footers
- Create and format tables

There are no prerequisites for these courses.

Microsoft Word 2019 Intermediate

This 1-day, instructor-led course is designed to teach you to use the more advanced tools and features of Microsoft Word 2019. You will learn how to:

- Use Shapes, WordArt, and SmartArt
- Manage Documents
- Insert References and Hyperlinks
- Save and Share Documents

There are no prerequisites for these courses, however, MS Word 2019 Introduction might be helpful.

Microsoft Word 2016 Advanced

This 1-day, instructor-led course is designed to teach you advanced skills for power users of Microsoft Word 2019. You will learn:

- Advanced formatting
- Advanced document management
- Using references
- Creating mailings
- Creating and using macros and forms

MS Word 2019 Introduction and Intermediate will be helpful for this class.

Microsoft Word 2021/365 Introduction

This 1-day, instructor-led course is designed to teach you about the tools and features of Microsoft Word 2021/365. You will learn how to:

- Create documents
- Format text
- Insert pictures, headers, and footers
- Create and format tables

There are no prerequisites for these courses.

Microsoft Word 2021/365 Intermediate

This 1-day, instructor-led course is designed to teach you to use the more advanced tools and features of Microsoft Word 2021/365. You will learn how to:

- Use Shapes, WordArt, and SmartArt
- Manage Documents
- Insert References and Hyperlinks
- Save and Share Documents

There are no prerequisites for these courses, however, MS Word 2021/365 Introduction might be helpful.

Microsoft Word 2021/365 Advanced

This 1-day, instructor-led course is designed to teach you advanced skills for power users of Microsoft Word 2021/365. You will learn:

- Advanced formatting
- Advanced document management

- Using references
- Creating mailings
- Creating and using macros and forms

MS Word 2021/365 Introduction and Intermediate will be helpful for this class.

Microsoft Excel 2016 Introduction

This 1-day, instructor-led course provides the basic concepts and skills to start being productive with Excel 2016. You will learn to:

- Create worksheets
- Format
- Manipulate data
- Create charts

MS Excel 2016 Introduction does not require any prerequisites.

Microsoft Excel 2016 Intermediate

This 1-day, instructor-led course builds on the concepts and skills of the Introduction course for more advanced analysis and presentation. You will learn to:

- Manage workbooks
- Use names in formulas
- Manipulate tables
- Summarize data
- Use PivotTables

MS Excel 2016 Intermediate does not require any prerequisites, but the MS Excel 2016 Introduction course is helpful.

Microsoft Excel 2016 Advanced

This 1-day, instructor-led course provides advanced tools for solving real-world problems in MS Excel 2016. You will learn:

- Logical and lookup functions
- Advanced formulas
- Special functions
- Importing and exporting
- Analysis
- Macros and forms

MS Excel 2016 Introduction and Intermediate or equivalent experience are recommended.

Microsoft Excel 2019 Introduction

This 1-day, instructor-led course provides the basic concepts and skills to start being productive with Excel 2019. You will learn how to:

- Create worksheets
- Format
- Manipulate data
- Create charts
- Output and share workbooks

MS Excel 2019 Introduction does not require any prerequisites.

Microsoft Excel 2019 Intermediate

This 1-day, instructor-led course builds on the concepts and skills of the Introduction course for more advanced analysis and presentation. You will learn how to:

- Manage workbooks
- Use names in formulas
- Manipulate tables
- Summarize data
- Use PivotTables
- Create presentations
- Collaborate with others

MS Excel 2019 Intermediate does not require any prerequisites, but the MS Excel 2019 Introduction course is helpful.

Microsoft Excel 2019 Advanced

This 1-day, instructor-led course provides advanced tools for solving real-world problems in MS Excel 2019. You will learn:

- Logical and lookup functions
- Advanced formulas
- Special functions
- Importing and exporting
- Analysis
- Macros and forms

MS Excel 2019 Introduction and Intermediate or equivalent experience are recommended.

Microsoft Excel 2021/365 Level 1

Microsoft Excel 2021/365 Level 1 is a one-day instructor-led class that introduces the basic features and functionalities of Microsoft Excel. Participants will learn spreadsheet basics, data entry, and fundamental formulas to start leveraging Excel for daily tasks.

- Understand the basic functionalities of Excel for spreadsheet management.
- Learn to perform data entry and apply fundamental formulas for calculations.
- Acquire the skills to manage and organize data effectively using Excel.

There are no prerequisites for this course.

Microsoft Excel 2021/365 Level 2

Microsoft Excel 2021/365 Level 2 is a one-day instructor-led class aimed at those familiar with basic Excel functionalities who are looking to improve their skills in data analysis and more complex functions.

- Enhance Excel skills with more complex functions and data analysis techniques.
- Learn to use tools for analyzing large data sets and generating insights.
- Explore advanced features of Excel for more sophisticated data management and presentation.

Prerequisites: Students should have completed the Introduction class or have equivalent experience.

Microsoft Excel 2021/365 Level 3

Microsoft Excel 2021/365 Level 3 is a one-day instructor-led class designed for advanced Excel users. This course covers macros, advanced data analysis tools, and techniques for automating tasks within Excel.

- Master advanced Excel functions and tools for data analysis and automation.
- Learn to create and use macros to automate repetitive tasks and workflows.
- Develop expertise in using Excel for complex data manipulation and presentation.

Prerequisites: Students should have completed the Intermediate class or have equivalent experience.

Microsoft Outlook 2016 Introduction

This 1- day, instructor-led course is designed to introduce you to the use of Microsoft Outlook 2016 in the workplace. After taking these courses, you will be able to manage:

- Email messages
- Contacts
- Tasks
- Events & calendars
- Meeting requests

There are no prerequisites for these courses.

Microsoft Outlook 2016 Advanced

This 1- day, instructor-led course is designed to introduce you to the use of Microsoft Outlook 2016 in the workplace. After taking these courses, you will be able to manage:

- Collaboration
- Mailbox Management
- Contact and calendar management

MS Outlook 2016 Introduction is recommended before taking this course.

Microsoft Outlook 2019 Introduction

This 1- day, instructor-led course is designed to introduce you to the use of Microsoft Outlook 2019 in the workplace. After taking these courses, you will be able to manage:

- Email messages
- Contacts
- Tasks
- Events & calendars
- Meeting requests

There are no prerequisites for these courses.

Microsoft Outlook 2019 Advanced

This 1- day, instructor-led course is designed to introduce you to the use of Microsoft Outlook 2019 in the workplace. After taking these courses, you will be able to manage:

- Collaboration
- Mailbox Management
- Contact and calendar management

MS Outlook 2019 Introduction is recommended before taking this course.

Microsoft Outlook 2021/365 Introduction

This 1- day, instructor-led course is designed to introduce you to the use of Microsoft Outlook 2021/365 in the workplace. After taking these courses, you will be able to manage:

- Email messages
- Contacts
- Tasks
- Events & calendars
- Meeting requests

There are no prerequisites for these courses.

Microsoft Outlook 2021/365 Advanced

This 1- day, instructor-led course is designed to introduce you to the use of Microsoft Outlook 2021/365 in the workplace. After taking these courses, you will be able to manage:

- Collaboration
- Mailbox Management
- Contact and calendar management

MS Outlook 2021/365 Introduction is recommended before taking this course.

Microsoft Access 2016 Introduction

This 1-day, instructor-led course is designed to teach you a working knowledge of Microsoft Access 2016 in the workplace. This course will teach you:

- Database Concepts
- Access Basics
- To create databases
- To work with fields and records
- Create and use forms
- Create and use reports

There are no prerequisites for this course.

Microsoft Access 2016 Intermediate

This 1-day, instructor-led builds on the knowledge of Microsoft Access 2016 in the workplace. This course will teach you:

- Relational Database Concepts
- To perform calculations
- To work with advanced form functions and report functions
- Design and create tables

MS Access 2016 Introduction is recommended before taking this course.

Microsoft Access 2016 Advanced

This 1-day, instructor-led shows you how to bring all the different Access objects to use advanced functions. This course will teach you:

- To design an application
- Macros
- Programming
- Subforms, dialog boxes, and controls

MS Access 2016 Introduction and Intermediate are recommended before taking this course

Microsoft Access 2019 Introduction

This 1-day, instructor-led course is designed to teach you a working knowledge of Microsoft Access 2019 in the workplace. This course will teach you:

- Database Concepts
- Access Basics
- To create databases
- To work with fields and records
- Create and use forms
- Create and use reports

There are no prerequisites for this course.

Microsoft Access 2019 Intermediate

This 1-day, instructor-led builds on the knowledge of Microsoft Access 2019 in the workplace. This course will teach you:

- Relational Database Concepts
- To perform calculations
- To work with advanced form functions and report functions
- Design and create tables

MS Access 2019 Introduction is recommended before taking this course.

Microsoft Access 2019 Advanced

This 1-day, instructor-led shows you how to bring all the different Access objects to use advanced functions. This course will teach you:

- To design an application
- Macros
- Programming
- Subforms, dialog boxes, and controls

MS Access 2019 Introduction and Intermediate are recommended before taking this course.

Microsoft Access 2021/365 Introduction

This 1-day, instructor-led course is designed to teach you a working knowledge of Microsoft Access 2021/365 in the workplace. This course will teach you:

- Database Concepts
- Access Basics
- To create databases
- To work with fields and records
- Create and use forms
- Create and use reports

There are no prerequisites for this course.

Microsoft Access 2021/365 Intermediate

This 1-day, instructor-led builds on the knowledge of Microsoft Access 2021/365 in the workplace. This course will teach you:

- Relational Database Concepts
- To perform calculations
- To work with advanced form functions and report functions
- Design and create tables

MS Access 2019 Introduction is recommended before taking this course.

Microsoft Access 2021/365 Advanced

This 1-day, instructor-led shows you how to bring all the different Access objects to use advanced functions. This course will teach you:

- To design an application
- Macros
- Programming
- Subforms, dialog boxes, and controls

MS Access 2021/365 Introduction and Intermediate are recommended before taking this course.

Microsoft Project 2016 Introduction

This 1-day, instructor-led addresses the features of MS Project. Students will learn to do the following:

- Navigate and understand the important features of the Microsoft Project environment
- Create a new project schedule from scratch
- Understand and work with task types, scheduling options, and task constraints
- Work with resources, including scheduling and assignment
- Manage the project schedule in accordance with the critical path and project baseline
- Print project views, dashboards, and various other kinds of reports

There are no prerequisites for this course.

Microsoft Project 2016 Advanced

This 1-day, instructor-led addresses the advanced features of MS Project. Students will learn to do the following:

- Work with the Quick Access Toolbar and advanced calendar topics
- Add task notes; set task deadlines and priorities; and group, sort, filter, highlight, and add fixed costs to tasks
- Group, sort, filter, and highlight resources; set resource working-time exceptions and pool resources for sharing; and create resource budget cost items
- Work with multiple baselines and interim plans, update a project schedule using a status date and resolve resource conflicts and scheduling issues
- Use the Task Form, Task Details Form, and Task Name Form; use the Resource Form and Resource Name Form; and understand the Relationship Diagram and compound views
- Consolidate projects using Master projects and Subprojects and work with Project Server, Project Online, and SharePoint
- Use Project data in other applications, and create final reports

Students should have some experience with MS Project to take this course

Microsoft Project 2019 Basic

Microsoft Project 2019 Basic is a one-day instructor-led class that introduces the key features of Microsoft Project. Attendees will learn how to create project plans, manage tasks, and track progress using Project 2019.

- Understand the basic features of Microsoft Project for project planning and management.
- Learn to create project schedules, assign resources, and track project progress.
- Develop skills to manage tasks effectively using Project 2019 tools.
- There are no prerequisites for this course.

Microsoft Project 2019 Advanced

Microsoft Project 2019 Advanced is a one-day instructor-led class that dives deeper into advanced functionalities of Microsoft Project for complex project management scenarios, including resource allocation, progress tracking, and custom reporting.

- Master advanced Microsoft Project features for detailed project management.
- Learn to manage complex project scenarios with resource allocation and custom reporting.
- Gain expertise in advanced project tracking and analysis techniques for improved project outcomes.

Prerequisites: Participants should have completed Microsoft Project 2019 Basic or have equivalent experience.

Microsoft Project 2021/365 Basic

Microsoft Project 2021/365 Basic is a one-day instructor-led class that introduces the key features of Microsoft Project. Attendees will learn how to create project plans, manage tasks, and track progress using Project 2021/365.

- Understand the basic features of Microsoft Project for project planning and management.
- Learn to create project schedules, assign resources, and track project progress.
- Develop skills to manage tasks effectively using Project 2021/365 tools.

- There are no prerequisites for this course.

Microsoft Project 2021/365 Advanced

Microsoft Project 2021/365 Advanced is a one-day instructor-led class that dives deeper into advanced functionalities of Microsoft Project for complex project management scenarios, including resource allocation, progress tracking, and custom reporting.

- Master advanced Microsoft Project features for detailed project management.
- Learn to manage complex project scenarios with resource allocation and custom reporting.
- Gain expertise in advanced project tracking and analysis techniques for improved project outcomes.

Prerequisites: Participants should have completed Microsoft Project 2021/365 Basic or have equivalent experience.

Microsoft PowerPoint 2016 Introduction

This 1-day, instructor-led course is designed to introduce you to Microsoft PowerPoint 2016 in the workplace. After taking this course, you will understand how to:

- Develop a presentation
- Add graphical elements
- Add charts, tables, and graphs
- Deliver your presentation

There are no prerequisites for these courses.

Microsoft PowerPoint 2016 Advanced

This 1-day, instructor-led course builds on the concepts of Microsoft PowerPoint 2016 Introduction. After taking this course, you will understand how to:

- Customizing Design Templates
- Adding SmartArt
- Working with Media
- Collaborating
- Customizing a Slideshow
- Securing and Distributing a Presentation

MS PowerPoint 2016 Introduction is recommended before taking this course.

Microsoft PowerPoint 2019 Introduction

This 1-day, instructor-led course is designed to introduce you to Microsoft PowerPoint 2019 in the workplace. After taking this course, you will understand how to:

- Develop a presentation
- Add graphical elements
- Add charts, tables, and graphs
- Deliver your presentation

There are no prerequisites for these courses.

Microsoft PowerPoint 2019 Advanced

This 1-day, instructor-led course builds on the concepts of Microsoft PowerPoint 2019 Introduction. After taking this course, you will understand how to:

- Customizing Design Templates
- Adding SmartArt
- Working with Media

- Collaborating
- Customizing a Slideshow
- Securing and Distributing a Presentation

MS PowerPoint 2019 Introduction is recommended before taking this course.

Microsoft PowerPoint 2021/365 Introduction

This 1-day, instructor-led course is designed to introduce you to Microsoft PowerPoint 2021/365 in the workplace. After taking this course, you will understand how to:

- Develop a presentation
- Add graphical elements
- Add charts, tables, and graphs
- Deliver your presentation

There are no prerequisites for these courses.

Microsoft PowerPoint 2021/365 Advanced

This 1-day, instructor-led course builds on the concepts of Microsoft PowerPoint 2021/365 Introduction. After taking this course, you will understand how to:

- Customizing Design Templates
- Adding SmartArt
- Working with Media
- Collaborating
- Customizing a Slideshow
- Securing and Distributing a Presentation

MS PowerPoint 2021/365 Introduction is recommended before taking this course.

MS 50413: Mastering Microsoft Project 2010

This 3-day, instructor-led course is aimed at IT professionals who work with Microsoft Project 2010. It covers:

- Initializing Project 2010
- Task-based schedule creation
- Managing tasks & company resources
- Communicating project information
- Project tracking & analysis

This course will prepare you for the Microsoft 70-178 exam.

There are no prerequisites for this course. However, it may be helpful to have a basic understanding of project management principles before attending.

MS 50468: SharePoint 2010 End User Level 1

This 3-day, instructor-led course is directed toward any IT or business professional who uses SharePoint sites. It will teach you how to work with:

- SharePoint Lists
- List Management tasks
- Permissions
- Basic SharePoint Foundation sites

Prerequisites: Before taking this course, you should have a basic understanding of website functionality and experience working with SharePoint sites.

MS 50469: SharePoint 2010 End User Level 2

This 2-day, instructor-led course is intended for anyone responsible for managing SharePoint sites. It covers:

- The new SharePoint navigation ribbon
- New end-user features
- New features of My Sites
- Social computing features such as ranking & tagging

Prerequisites: Before taking this course, you must successfully complete MS 50468: SharePoint 2010 End User Level 1.

Microsoft SharePoint Level 1

This 1-day instructor-led course is for end users working in a SharePoint 2016 environment. It is an abbreviated version of our complete SharePoint End User class and is intended for people new to using SharePoint who will not be responsible for managing a SharePoint site. At the completion of this course, participants will be able to:

- Navigate a SharePoint 2016 Team Site
- Create SharePoint lists
- Customize SharePoint lists
- Create SharePoint libraries
- Manage library document versions
- Create SharePoint list and library views
- Integrate Office Outlook and Excel applications with SharePoint 2016

There are no prerequisites for this course.

Microsoft SharePoint Level 2

This 1-day instructor-led course is an intermediate course designed for the Site Owner. This course will help experienced SharePoint users learn how to create and manage sites. It will look at changes that have been made to the user interface, show users how to create new sites, libraries, and lists, as well as change site settings and manage site options. At the completion of this course, participants will be able to:

- Create a New Site
- Add and configure libraries
- Add and configure lists
- Configure Site Settings
- Assign Permission and Access Rights

Prerequisites: Microsoft SharePoint Level 1 or equivalent experience.

Microsoft SharePoint Level 3

This 1-day instructor-led course covers more advanced features of SharePoint, such as collection administration, from planning to reporting. At the completion of this course, participants will be able to:

- Create and configure site collections
- Configure top-level sites
- Configure site collection metadata
- Practice archiving and compliance
- Create workflows
- Implement and configure search

There are no prerequisites for this course.

Microsoft SharePoint End User

This 1-day, instructor-led course is customized to work with DISA DEPS governance. It covers:

- Accessing SharePoint
- SharePoint Libraries
- Search
- Using SharePoint Task Lists
- Working with Calendars
- SharePoint Wikis
- Discussion Boards

Prerequisites: Participants should have some experience with MS Office.

Microsoft SharePoint (Customized)

This 5-day, instructor-led course is customized to work with DISA DEPS governance. It covers:

- Organization and Development of SharePoint Sites
- Site Collections
- Libraries and Lists
- Managing Permissions
- Office Integration
- Search and Views.
- Consistency Across Sites
- Displaying Data with Web Parts
- Document Management through Workflows

Prerequisites: Participants should have some experience with MS Office.

WEB APPLICATIONS

Google Applications

Google Applications is a one-day instructor-led class that focuses on maximizing productivity using Google's suite of applications. Attendees will learn how to effectively use tools like Google Docs, Sheets, Slides, and Drive for collaboration and business operations.

- Master the use of Google Docs, Sheets, Slides, and Drive for professional purposes.
- Enhance collaboration and productivity through the effective use of Google applications.
- Learn tips and tricks for optimizing work processes with Google's tools.

There are no prerequisites for this course.

Intermediate Excel with Google Sheets

Intermediate Excel with Google Sheets is a one-day instructor-led class that builds upon basic spreadsheet skills, teaching more advanced functions and data analysis techniques in both Microsoft Excel and Google Sheets.

- Master advanced spreadsheet functions and techniques for data analysis in Excel and Google Sheets.
- Learn how to use both platforms for effective data management and presentation.
- Enhance productivity with skills in creating complex formulas, charts, and data visualizations.

Advanced Excel with Google Sheets

Advanced Excel with Google Sheets is a one-day instructor-led class that merges the functionalities of Microsoft Excel with the collaborative features of Google Sheets. This course will guide participants through complex functions, data analysis techniques, and automation tools to streamline workflow. Attendees will gain hands-on experience in using advanced features of both applications to manage and interpret large datasets effectively.

- Master advanced functions and formulas in Excel and Google Sheets for complex data analysis.
- Utilize automation tools and techniques to streamline data management and workflow processes.

- Develop skills in creating dynamic and interactive data reports for effective data interpretation and decision-making.

There are no prerequisites for this course.

GOVERNMENT-SPECIFIC TRAINING

Risk Management Framework (RMF)

Our 4-day, instructor-led course is designed for IT security professionals based on the Risk Management Framework used by the DoD. It covers:

- The RMF process
- NIST baseline security controls
- Documentation package
- Continuous monitoring process
- DoDI 8510.01
- NIST 800-53 security controls
- NIST 800-53a evaluation procedures

This course replaces DIACAP and provides universal cyber security training for all federal agencies.

There are no prerequisites for this course. However, you are encouraged to have a general working knowledge of information systems prior to enrollment.

Risk Management Framework (RMF) for DoD IT

Our 4-day, instructor-led course is designed to prepare students to implement the Risk Management Framework for their IT systems as prescribed in the updated DoD series of publications, as well as the related NIST and CNSS publications. No matter what type or security categorization your system, products, or service is, RMF for DoD IT will help you meet or exceed DoD and Federal compliance requirements.

Prerequisites: Individuals attending this class should have knowledge and experience with information system security and best practices.

Risk Management Framework (RMF) for Security Control Assessors

This RMF course provides an in-depth look at testing the controls using NIST SP 800-53A Rev. 4 and ensuring the use of the Risk Management Framework (RMF) for Federal Security Systems. Expert instructors explain each NIST SP 800-53 Revision 4 controls to include what method should be used to test and validate each security control in accordance with NIST SP 800-53A, Rev. 4 and NIST SP 800-115, what evidence should be gathered, and how to more efficiently and effectively test Federal systems and infrastructure. The course introduces the independent tester or Validator to test the process for any of the Federal IA controls using manual and automated tests to ensure all controls are tested properly.

Prerequisites: Individuals attending this class should have a minimum of 3 years of experience with information system security and best practices. In addition, students should have some knowledge of NIST SP 800- 53A, Rev. 4, NIST SP 800-115, NIST SP 800-37, NIST SP 800-39 and the development of the Security Assessment Report (SAR), and Plan of Action and Milestones (POA&M).

RMF for Program Managers

This 2-day course is high-level training that introduces the Risk Management Framework (RMF), including a review of the laws, policy, and regulations that govern the process, the roles and responsibilities associated with the RMF, introducing risk, the 6 steps, planning for an assessment, and the documentation and artifacts required. It will primarily focus on the PM's role in the RMF process and the impact that it can have on the cost, timeline, and authorization to operate

eMASS Direct User Training

Through this 5-day course, students learn to navigate eMASS to support the creation, assessment, and authorization of a completed A&A package. Most importantly, students spend 50% of the class working with eMASS in a full Beta environment managed by the DoD for training purposes to create a complete authorization package. Our experienced instructors take the time to guide students through every role with eMASS. They customize the training session so students walk away ready to provide their agency with the full benefit of this important tool. Our 5-day course, complete with an exit exam, ensures that students can take advantage of this crucial tool. Because of the full hands-on nature of this class and the sensitivity of eMASS, this class can only be run at the client's location. Clients must can connect with the .mil network to access the BETA version of eMASS. Our operations team will make sure that your system is set up for a seamless 5 days of instruction and practice.

Prerequisites: Students should have access to a government computing system with an associated CAC and reader.

eMASS Managers Overview

Through this 1-day course, students will proceed step-by-step through the RMF authorization process. Our qualified instructors show cybersecurity leaders how to get the most out of every vital screen. Students in this course will be the go-to authority on every important field and feature. Approach your next A&A with the knowledge that gets results!

Prerequisites: Students should have knowledge of and experience with information security systems and best practices

eMASS Workshop

This 3-day workshop ensures that IA professionals are well versed in the capabilities and application of this dynamic tool. Students in our three-day workshop will learn to navigate eMASS to support the creation, assessment, and authorization of a complete A&A package. In addition to expert instruction, students spend much of the class completing exercises that will prepare them to create a complete authorization package. Our experienced instructors guide students through every role with eMASS and customize the training session so students walk away ready to provide their team with the full benefit of this important tool. The course concludes with an exit exam to ensure that students have the knowledge to take full advantage of eMASS

Prerequisites: Students should have knowledge of and experience with information security systems and best practices.

CCA – Certified CMMC Assessor

This 4-day instructor-led course will prepare participants for the Organizations Seeking Certification (OSC) Cybersecurity Maturity Model Certification (CMMC) Level 2 Assessor exam. In this course, participants will learn the following:

- Evaluating Organizations Seeking Certification (OSC) against CMMC Level 2 requirements
- CMMC Level 2 Assessment Scoping
- CMMC Assessment Process (CAP)
- Assessing CMMC Level 2 Practices

Prerequisites: Participants must have passed the Certified CMMC Professional exam.

CCP - Certified CMMC Professional

This 4-day instructor-led course will prepare participants for the Organizations Seeking Certification (OSC) Cybersecurity Maturity Model Certification (CMMC) Professional exam. In this course, participants will learn the following:

- CMMC Ecosystem
- CMMC-AB Code of Professional Conduct (Ethics)
- CMMC Governance and Sources Documents
- CMMC Model Construct and Implementation Evaluation
- CMMC Assessment Process (CAP)
- Scoping

Prerequisites: Participants must have a college degree in a cyber or IT field or 2+ years of related experience or education and 2+ years of equivalent experience (including military) in a cyber, IT, or assessment field. CompTIA A+ or equivalent knowledge is suggested. To take the CCP exam, they must also pass DoD CUI awareness training no less than three months prior to the exam.

PROJECT MANAGEMENT

PMI® Agile Certified Practitioner (PMI®-ACP®)

This 3-day, instructor-led course is intended for project management professionals who use Agile practices in their organization. It covers:

- Agile principles & practices
- The Agile software development methodology
- The latest Agile developments in the field

This course will prepare you for the PMI®-ACP® Certification.

Prerequisites: Before taking this course, you should have at least 2000 hours of project management experience or the PMI® PMP® Certification. You should also have an additional 1500+ hours working with Agile.

Project Management for the IT Professional

This 4-day, instructor-led course is ideal for current project managers and project team members. This training provides students with an understanding of:

- IT Project Management skills
- Roles and responsibilities
- Context and process groups
- Controlling costs
- Managing scope
- Effective time management
- Integration management

There are no prerequisites for this course.

Jira Fundamentals

Our 1-day, instructor-led course will include lectures and exercises to teach students the following:

- Understand Jira's data hierarchy and how to design and work with projects in Jira
- Use Jira for agile software projects, business process management, customer service support, and more
- Understand issues and work with them
- Design both system and custom fields to behave differently under different contexts
- Create and design your own screens and apply them to different project and issue types
- Gain an understanding of the workflow and its various components
- Set up both incoming and outgoing mail servers to work with e-mails

Prerequisites: Before taking this course, students should have minimal to significant experience with software development

Advanced Jira

This 2-day instructor-led course is intended for developers who are looking to advance their skills in this project management application. It will teach you:

- How to delegate administrator permissions effectively

- Insights into integrating Jira with Bitbucket Cloud and GitHub
- Ways to collaborate with your internal teams on service requests
- How to add permissions to fields
- How to set up SSO with Google

Confluence

This three-day instructor-led course teaches the essential features and functionalities of Atlassian Confluence, including creating and organizing content, collaborating with team members, customizing Confluence spaces, and optimizing workflows. By the end of this course, participants will be able to:

- Understand the fundamentals of Atlassian Confluence.
- Create and organize content effectively in Confluence.
- Collaborate with team members using Confluence features.
- Customize Confluence spaces to suit their organization's needs.

Jira and Confluence Essentials

This 5-day instructor-led course Jira and Confluence Essentials course is intended for IT project managers and developers who want to use these tools to plan and track projects. It will teach you:

- Jira architecture
- The Jira Project Administrator Interface
- Using Jira for Agile Projects
- Jira Issue Management
- Jira Field Management
- Jira Screen Management
- Workflow and Business Process
- Jira email and notifications
- Securing Jira
- Searching, reporting, and analysis in Jira
- Creating and managing content
- Collaborating in Confluence
- Securing your content in Confluence
- Customizing Confluence

There are no prerequisites for this course.