On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSA Advantage!, a menu driven database system. The INTERNET address for GSA Advantage! is: [www.GSAAdvantage.gov](http://www.GSAAdvantage.gov).

**Schedule Title:** Multiple Award Schedule (MAS)  
**FSC Group:** Information Technology  
**FSC/PSC Codes:** U012

**Contract Number:** GS-35F-0469W

For more information on ordering from Federal Supply Schedules go to the GSA Schedules page at [GSA.gov](http://GSA.gov).

**Contract Period:** June 3, 2010 – June 2, 2025

**ULTIMATE KNOWLEDGE CORPORATION**  
9943 E Bell RD STE 106  
Scottsdale, AZ 85260-2530  
Phone Number: (202) 740-3005  
Fax Number: (202) 379-7978  
[www.ultimateknowledge.com](http://www.ultimateknowledge.com)

**Contact For Contract Administration:**  
Greg Dama, VP Business Development  
gdama@ultimateknowledge.com

**Business size:** Small Business

Current as of Modification Number PS-0040 effective July 20, 2022

Prices Shown Herein are Net (discount deducted)
CUSTOMER INFORMATION

1a. Table of awarded Special Item Numbers (SINs):

<table>
<thead>
<tr>
<th>SIN #</th>
<th>SIN TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>611420</td>
<td>Information Technology Training</td>
</tr>
<tr>
<td>OLM</td>
<td>Order-Level Materials (OLM)</td>
</tr>
</tbody>
</table>

1b. Identification of the lowest priced course for each special item number awarded in the contract.

See page 4

1c. If the Contractor is proposing hourly rates, a description of all corresponding commercial job titles, experience, functional responsibility and education for those types of employees or subcontractors who will perform services shall be provided.

Not applicable

2. Maximum order for each SIN:

<table>
<thead>
<tr>
<th>SIN #</th>
<th>MAXIMUM ORDER*</th>
</tr>
</thead>
<tbody>
<tr>
<td>611420</td>
<td>$250,000</td>
</tr>
<tr>
<td>OLM</td>
<td>$250,000</td>
</tr>
</tbody>
</table>

*If the best value selection places your order over the Maximum Order identified in this catalog/price list, you have an opportunity to obtain a better scheduled contract price. Before placing your order, contact the aforementioned contractor for a better price. The contractor may (1) offer a new price for this requirement (2) offer the lowest price available under this contract or (3) decline the order. A delivery order that exceeds the maximum order may be placed under the schedule contract in accordance with FAR 8.404.

3. Minimum order: **$100.00**

4. Geographic coverage (delivery area): **Worldwide**

5. Point(s) of production: **Not applicable**

6. Discount from list prices or statement of net price: **Net prices are shown (discount applied)**

7. Quantity discounts:

   5% more for more than 20 students or 20 classes
   Additional 5% discount for 2 or more classes on same task order

8. Prompt payment terms: **Not applicable**

9. Foreign items: **Not applicable**

10a. Time of delivery: **As negotiated**

10b. Expedited delivery: **Contact Contractor**
10c. Overnight and 2-day delivery: Contact Contractor

10d. Urgent requirements: Contact Contractor

11. F.O.B. point(s): Destination

12a. Ordering address(es):
ATTN: GSA Order Processing
ULTIMATE KNOWLEDGE INSTITUTE 9943 E Bell RD STE 106
Scottsdale, AZ 85260

12b. Ordering procedures:
For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPAs) are found in Federal Acquisition Regulation (FAR) 8.405-3.

13. Payment address:
ATTN: Accounts Payable
ULTIMATE KNOWLEDGE INSTITUTE 9943 E Bell RD STE 106
Scottsdale, AZ 85260

14. Warranty provision: Not applicable

15. Export packing charges: Not applicable

16. Terms and conditions of rental maintenance, and repair: Not applicable

17. Terms and conditions of installation: Not applicable

18a. Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices: Not applicable

18b. Terms and conditions for any other services: Not applicable

19. List of service and distribution points: Not applicable

20. List of participating dealers: Not applicable

21. Preventative maintenance: Not applicable

22a. Special attributes such as environmental attributes: Not applicable

22b. Section 508 compliance: The EIT standards can be found at: www.Section508.gov/

23. Unique Entity Identifier (UEI) number: MQ1TKVG8MN89

24. Notification regarding registration in the System for Award Management (SAM) database. ULTIMATE KNOWLEDGE CORPORATION is registered and active in SAM
## GSA Pricing

<table>
<thead>
<tr>
<th>SIN</th>
<th>Course Title</th>
<th>GSA Net Price</th>
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<tr>
<td>611420</td>
<td>Cisco Training and/or Certification Class (10 students)</td>
<td>$29,332.80 per course</td>
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<tr>
<td>611420</td>
<td>CCNA Boot Camp v2 (10 students)</td>
<td>$29,332.80 per course</td>
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<tr>
<td>611420</td>
<td>ITIL Training and/or Certification (10 students)</td>
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<td>611420</td>
<td>ITIL V2 Foundation Certificate (10 students)</td>
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<td>ITIL V2 Practitioner Certificate (10 students)</td>
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<td>ITIL V2 Service Manager Certificate (10 students)</td>
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<td>ITIL V3 Foundation Bridge Certificate (10 students)</td>
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<tr>
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<td>Wireless LAN Foundations (10 students)</td>
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<td>Wireless LAN Security and Analysis (10 students)</td>
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<td>Computer Hacking Forensics Investigator (CHFI) (10 students)</td>
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<td>Essentials of Information Security (Security+) (10 students)</td>
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<tr>
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<td>CISSP Prep Course (10 students)</td>
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<td>Very Small Aperture Terminal (10 students)</td>
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<td>Solar Winds Professional (10 students)</td>
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<td>AN/PRC 117G (10 students)</td>
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<td>Training Venue with Internet (daily)</td>
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<td>Microsoft Administering Windows Server 2012 (10 Students)</td>
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<td>Microsoft Administering System Center Configuration Manager (10 Students)</td>
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<td>611420</td>
<td>Microsoft Windows 10 Managing Modern Desktops (10 Students)</td>
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<td>VMware Certified Associate – Digital Business Transformation (10 students)</td>
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<td>611420</td>
<td>CompTIA CASP (10 Students)</td>
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<tr>
<td>611420</td>
<td>CompTIA Cloud+ (10 students)</td>
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<tr>
<td>611420</td>
<td>CompTIA Linux+ (10 students)</td>
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<td>ISACA Certified Information Systems Auditor (CISA) (10 students)</td>
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<td>Red Hat System Administration I (10 students)</td>
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<td>VMware vSphere: Install, Configure, Manage (10 students)</td>
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<td>Basic Project Management Fundamentals (10 students)</td>
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<td>Troubleshooting TCP/IP Networks w/Wireshark (10 students)</td>
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<td>CompTIA PenTest+ (10 students)</td>
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<td>EC-Council Certified Chief Information Security Officer (CCISO) (10 students)</td>
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<td>(ISC)2 Certified Secure Software Lifecycle Professional (CSSLP) (10 students)</td>
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<td>(ISC)2 Information Systems Security Architecture Professional (ISSAP) (10 students)</td>
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<td>(ISC)2 Information Systems Security Engineering Professional (ISSEP) (10 students)</td>
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<td>(ISC)2 Information Systems Security Management Professional (ISSMP) (10 students)</td>
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<tr>
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<td>GIAC SANS SEC503 - Certified Intrusion Analyst (10 students)</td>
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<td>GIAC SANS SEC501 – Certified Enterprise Defender (10 students)</td>
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<td>GIAC SANS FOR508 - Certified Forensic Analyst (10 students)</td>
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<td>GIAC SANS SEC504 - Certified Incident Handler (10 students)</td>
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<td>GIAC SANS SEC401 – Security Essentials Certification (10 students)</td>
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<td>GIAC SANS MGT512 - Security Leadership Certificate (10 students)</td>
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<td>ITIL Specialist Create, Deliver and Support (10 students)</td>
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<td>ITIL Specialist High-velocity IT (10 students)</td>
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<td>Microsoft SharePoint Level 3 (SHARE3) (10 students)</td>
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AWS Certified Advanced Networking (Specialty)

Course Description
The AWS Certified Advanced Networking – Specialty exam validates advanced technical skills and experience designing and implementing AWS and hybrid IT network architectures at scale. As a networking specialist, you will design a secure, scalable, and highly available network infrastructure on AWS while addressing requirements like network security, hybrid IT connectivity, network integration with other AWS services, routing techniques, and network troubleshooting.

Audience
- Data engineers
- Solutions architects
- Network engineers
- Infrastructure engineers

Prerequisites
- A current AWS Certified Cloud Practitioner or Associate-level AWS Certification
- Two or more years of hands-on experience in maintaining and implementing large-scale networks

What You’ll Learn
- Navigate the AWS Certified Advanced Networking – Specialty exam
- Understand advanced networking concepts in AWS so you can design well-architected networking frameworks for your workloads in Amazon Virtual Private Cloud (Amazon VPC)
- Connect on-premises data centers to Amazon VPC (AWS Direct Connect, AWS VPN), enabling AWS to function as an extension of the data center
- Leverage network automation to accelerate workload deployments and app migration
- Incorporate individual application networking requirements that use different AWS services into the overall network design
- Practice network security and network troubleshooting best practices
- Design, manage, and maintain tools to automate operational processes.

AWS Certified Data Analytics (Specialty)

Duration: 3 Day Training
Course Description
In this course, you learn about the process for planning data analysis solutions and the various data analytic processes that are involved. This course takes you through five key factors that indicate the need for specific AWS services in collecting, processing, analyzing, and presenting your data. This includes learning basic architectures, value propositions, and potential use cases. The course introduces you to the AWS services and solutions to help you build and enhance data analysis solutions.

Audience
- Data architects
- Data scientists
- Data analysts

Prerequisites
- Working knowledge of database concepts
- Basic understanding of data storage, processing, and analytics
- Experience with enterprise IT systems

What You'll Learn
- Identify the characteristics of data analysis solutions and the characteristics that indicate such a solution may be required
- Define types of data including structured, semistructured, and unstructured data
- Define data storage types such as data lakes, AWS Lake Formation, data warehouses, and the Amazon Simple Storage Service (Amazon S3)
- Analyze the characteristics of and differences in batch and stream processing
- Define how Amazon Kinesis is used to process streaming data
- Analyze the characteristics of different storage systems for source data
- Analyze the characteristics of online transaction processing (OLTP) and online analytical processing (OLAP) systems and their impact on the organization of data within these systems
- Analyze the differences of row-based and columnar data storage methods
- Define how Amazon EMR, AWS Glue, and Amazon Redshift each work to process, cleanse, and transform data within a data analysis solution
- Analyze the concept of atomicity, consistency, isolation, and durability (ACID) compliance as well as basic availability, soft state, eventual consistency (BASE) compliance and how an extract, transform, load (ETL) process can help to ensure compliance
- Explore the concept of data schemas and understand how they define data and how this information is stored in metastores
- Analyze the concept of data versus information
- Recognize the ways to analyze data to produce information for reports using tools such as Amazon QuickSight and Amazon Athena
- Define how AWS services work together to visualize data

AWS Certified Database (Specialty)
Course Description
This course will help you learn the design considerations for hosting databases on Amazon Elastic Compute Cloud (Amazon EC2). You will learn about our relational database services including Amazon Relational Database Service (Amazon RDS), Amazon Aurora, and Amazon Redshift. You will also learn about our non relational database services including Amazon DocumentDB, Amazon DynamoDB, Amazon ElastiCache, Amazon Neptune, and Amazon QLDB. By the end of this course, you will be familiar with the planning and design requirements of all 8 of these AWS databases services, their pros and cons, and how to know which AWS databases service is right for your workloads.

Audience
- Data platform engineers
- Database administrators
- Solutions architects
- IT professionals

Prerequisites
- AWS Database Offerings digital training
- Data Analytics Fundamentals digital training
- Architecting on AWS classroom training

What You'll Learn
- Apply database concepts, database management, and data modeling techniques
- Evaluate hosting databases on Amazon EC2 instances
- Evaluate relational database services (Amazon RDS, Amazon Aurora, and Amazon Redshift) and their features
- Evaluate non relational database services (Amazon DocumentDB, Amazon DynamoDB, Amazon ElastiCache, Amazon Neptune, and Amazon QLDB) and their features
- Examine how the design criteria apply to each service
- Apply management principles based on the unique features of each service

AWS Certified Developer (Associate)

Course Description
In this course, you learn how to use the AWS SDK to develop secure and scalable cloud applications using multiple AWS services such as Amazon DynamoDB, Amazon Simple Storage Service, and
AWS Lambda. You explore how to interact with AWS using code and learn about key concepts, best practices, and troubleshooting tips.

**Audience**

- Intermediate software developers

**Prerequisites**

- In-depth knowledge of at least one high-level programming language
- Working knowledge of core AWS services and public cloud implementation

**What You'll Learn**

- Set up the AWS SDK and developer credentials for Java, C#/.NET, Python, and JavaScript
- Interact with AWS services and develop solutions by using the AWS SDK
- Use AWS Identity and Access Management (IAM) for service authentication
- Use Amazon Simple Storage Service (Amazon S3) and Amazon DynamoDB as data stores
- Integrate applications and data by using AWS Lambda, Amazon API Gateway, Amazon Simple Queue Service (Amazon SQS), Amazon Simple Notification Service (Amazon SNS), and AWS Step Functions
- Use Amazon Cognito for user authentication
- Use Amazon ElastiCache to improve application scalability
- Leverage the CI/CD pipeline to deploy applications on AWS

## AWS Certified DevOps Engineer (Professional)

*Duration: 3 Day Training*

### Course Description

The AWS Certified DevOps Engineer – Professional exam validates technical expertise in provisioning, operating, and managing distributed application systems on the AWS platform. Join this full-day, advanced-level course to learn how to prepare for the exam by exploring the exam's topic areas and how they map to DevOps on AWS and to specific areas to study. We will review sample exam questions in each topic area and teach you how to interpret the concepts being tested so that you can more easily eliminate incorrect responses. This course covers the core principles of the DevOps methodology and examines several use cases applicable to startup, small- and medium-sized business, and enterprise development scenarios.

**Audience**

- DevOps engineers
- Solutions architects
- Systems administrators
Prerequisites

- One or more years of hands-on experience designing and maintaining an AWS based application
- In-depth knowledge of at least one high-level programming language

What You'll Learn

- Prepare for the AWS Certified DevOps Engineer – Professional exam.
- Implement and manage continuous delivery systems and methodologies on AWS.
- Understand, implement, and automate security controls, governance processes, and compliance validation.
- Define and deploy monitoring, metrics, and logging systems on AWS.
- Implement systems that are highly available, scalable, and self-healing on the AWS platform.
- Design, manage, and maintain tools to automate operational processes.

AWS Certified Machine Learning (Specialty)

Duration: 3 Day Training

Course Description
This course builds upon and extends the DevOps practice prevalent in software development to build, train, and deploy machine learning (ML) models. The course stresses the importance of data, model, and code to successful ML deployments. It will demonstrate the use of tools, automation, processes, and teamwork in addressing the challenges associated with handoffs between data engineers, data scientists, software developers, and operations. The course will also discuss the use of tools and processes to monitor and take action when the model prediction in production starts to drift from agreed-upon key performance indicators.

Audience

- DevOps engineers
- ML engineers
- Developers/operations with responsibility for operationalizing ML models

Prerequisites

- AWS Technical Essentials
- DevOps Engineering on AWS
- Practical Data Science with Amazon Sage Maker

What You’ll Learn

- Describe machine learning operations
- Understand the key differences between DevOps and MLOps
● Describe the machine learning workflow
● Discuss the importance of communications in MLOps
● Explain end-to-end options for automation of ML workflows
● List key Amazon SageMaker features for MLOps automation
● Build an automated ML process that builds, trains, tests, and deploys models
● Build an automated ML process that retrains the model based on change(s) to the model code
● Identify elements and important steps in the deployment process
● Describe items that might be included in a model package, and their use in training or inference
● Recognize Amazon SageMaker options for selecting models for deployment, including support for ML frameworks and built-in algorithms or bring-your-own-models
● Differentiate scaling in machine learning from scaling in other applications
● Determine when to use different approaches to inference
● Discuss deployment strategies, benefits, challenges, and typical use cases
● Describe the challenges when deploying machine learning to edge devices
● Recognize important Amazon SageMaker features that are relevant to deployment and inference
● Describe why monitoring is important
● Detect data drifts in the underlying input data
● Demonstrate how to monitor ML models for bias
● Explain how to monitor model resource consumption and latency
● Discuss how to integrate human-in-the-loop reviews of model results in production

AWS Certified Security (Specialty)

Duration: 3 Day Training

Course Description
In this course, you will learn how to efficiently use AWS security services for optimal security and compliance in the AWS cloud. This course focuses on the AWS-recommended best practices that you can implement to enhance the security of your data and systems in the cloud. The course highlights the security features of AWS key services including compute, storage, networking, and database services. This course also refers to the common security control objectives and regulatory compliance standards. Additionally, you will examine use cases for running regulated workloads on AWS across different verticals, globally. You will also learn how to leverage AWS services and tools for automation and continuous monitoring-taking your security operations to the next level.

Audience
● Security engineers, architects, analysts, and auditors
● Individuals who are responsible for governing, auditing, and testing an organization's IT infrastructure, as well as ensuring conformity of the infrastructure to security, risk, and compliance guidelines

Prerequisites
- Have attended the AWS Security Fundamentals course
- Experience with governance, risk, compliance regulations, and control objectives
- Working knowledge of IT security practices
- Working knowledge of IT infrastructure concepts
- Familiarity with cloud computing concepts

**What You'll Learn**

- Assimilate and leverage the AWS shared security responsibility model
- Manage user identity and access management in the AWS cloud
- Use AWS security services such as AWS Identity and Access Management, Amazon Virtual Private Cloud, AWS CloudTrail, Amazon CloudWatch, AWS Key Management Service, AWS CloudHSM, AWS Config, AWS Service Catalog, and AWS Trusted Advisor
- Implement better security controls for your resources in the AWS cloud
- Manage and audit your AWS resources from a security perspective
- Monitor and log access and usage of AWS compute, storage, networking, and database services
- Assimilate and leverage the AWS shared compliance responsibility model
- Identify AWS services and tools to help automate, monitor, and manage security operations on AWS
- Perform security incident management, cloud resiliency, and business continuity in the AWS cloud

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**AWS Certified Solutions Architect (Associate)**

*Duration: 4 Day Training*

**Course Description**

This four-day, instructor-led course helps busy architects get away from the day-to-day to get focused and ready for their AWS Certified Solutions Architect – Associate exam. Attendees learn the fundamentals of building IT infrastructure on AWS, so they can build scalable and resilient solutions in the cloud. They’ll start getting in the exam readiness mindset with bonus end of module quizzes. The course broadens attendees’ knowledge of AWS services with deep dives into Amazon Redshift, Amazon Kinesis, and AWS Key Management Service, and then concludes with two quizzes and an instructor guided review of the AWS Certified Solutions Architect – Associate practice exam.

**Audience**

- Solutions architects and cloud architects seeking their AWS Certified Solutions Architect – Associate certification
- Customers and APN Partners who have 6 to 12 months of experience with AWS including a strong architecture background and experience
- Individuals who prefer an instructor led course for training and exam readiness
- Individuals who have not taken the Architecting on AWS course in the last ~6 months

**Prerequisites**
At least 6 to 12 months of hands-on experience designing with AWS services
Hands-on experience using compute, networking, storage, and database AWS services
An understanding of the basic architectural principles of building on the AWS cloud
An understanding of the AWS global infrastructure

What You'll Learn

- Make architectural decisions based on AWS architectural principles and best practices
- Leverage AWS services to make your infrastructure scalable, reliable, and highly available
- Leverage AWS Managed Services to enable greater flexibility and resiliency in an infrastructure
- Make an AWS-based infrastructure more efficient to increase performance and reduce costs
- Use the Well-Architected Framework to improve architectures with AWS solutions
- Navigate the logistics of the examination process, exam structure, and question types
- Identify how questions relate to AWS architectural concepts
- Interpret the concepts being tested by an exam question

AWS Certified Solutions Architect (Professional)

Duration: 3 Day Training

Course Description
Advanced Architecting on AWS is intended for individuals who are experienced with designing scalable and elastic applications on the AWS platform. Building on concepts introduced in Architecting on AWS, this course covers how to build complex solutions that incorporate data services, governance, and security on AWS. This 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.

Audience
- This course is intended for experienced IT professionals who are already familiar with AWS services.

Prerequisites
- Architecting on AWS
- AWS Certified Solutions Architect – Associate certification

What You'll Learn

- Apply the AWS Well-Architected Framework
- Manage multiple AWS accounts for your organization
- Connect an on-premises datacenter to the AWS Cloud
- Discuss billing implications of connecting multi-region VPCs
- Move large data from an on-premises datacenter to AWS
- Design large data stores for the AWS Cloud
- Understand different architectural designs for scaling a large website
- Protect your infrastructure from distributed denial of service (DDOS) attacks
- Secure your data on AWS with encryption
- Design protection of data at rest and data in transit
- Enhance the performance of your solutions
- Select the most appropriate AWS deployment mechanism
- Use the Well-Architected Framework to improve architectures with AWS solutions
- Navigate the logistics of the examination process, exam structure, and question types
- Identify how questions relate to AWS architectural concepts
- Interpret the concepts being tested by an exam question

## AWS Certified Solutions Architect (Professional)

*Duration: 3 Day Training*

### Course Description
Advanced Architecting on AWS is intended for individuals who are experienced with designing scalable and elastic applications on the AWS platform. Building on concepts introduced in Architecting on AWS, this course covers how to build complex solutions that incorporate data services, governance, and security on AWS. This 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.

### Audience
This course is intended for experienced IT professionals who are already familiar with AWS services.

### Prerequisites
- Architecting on AWS
- AWS Certified Solutions Architect – Associate certification

### What You'll Learn
- Apply the AWS Well-Architected Framework
- Manage multiple AWS accounts for your organization
- Connect an on-premises datacenter to the AWS Cloud
- Discuss billing implications of connecting multi-region VPCs
- Move large data from an on-premises datacenter to AWS
- Design large data stores for the AWS Cloud
- Understand different architectural designs for scaling a large website
- Protect your infrastructure from distributed denial of service (DDOS) attacks
- Secure your data on AWS with encryption
AWS Certified Solutions Architect (Professional)

Duration: 3 Day Training

Course Description
Advanced Architecting on AWS is intended for individuals who are experienced with designing scalable and elastic applications on the AWS platform. Building on concepts introduced in Architecting on AWS, this course covers how to build complex solutions that incorporate data services, governance, and security on AWS. This 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.

Audience
This course is intended for experienced IT professionals who are already familiar with AWS services.

Prerequisites
- Architecting on AWS
- AWS Certified Solutions Architect – Associate certification

What You'll Learn
- Apply the AWS Well-Architected Framework
- Manage multiple AWS accounts for your organization
- Connect an on-premises datacenter to the AWS Cloud
- Discuss billing implications of connecting multi-region VPCs
- Move large data from an on-premises datacenter to AWS
- Design large data stores for the AWS Cloud
- Understand different architectural designs for scaling a large website
- Protect your infrastructure from distributed denial of service (DDOS) attacks
- Secure your data on AWS with encryption
- Design protection of data at rest and data in transit
- Enhance the performance of your solutions
- Select the most appropriate AWS deployment mechanism
- Use the Well-Architected Framework to improve architectures with AWS solutions
- Navigate the logistics of the examination process, exam structure, and question types
- Identify how questions relate to AWS architectural concepts
- Interpret the concepts being tested by an exam question
CyberSec First Responder by CertNexus (CFR)

Duration: 5 Day Training

Course Description
The CFR-410 course covers network defense and incident response methods, tactics, and procedures that are in alignment with industry frameworks such as NIST 800-61r2, US-CERT’s NCIRP, and PPD-41 on Cyber Incident Coordination. 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. The course introduces tools, tactics, and procedures to manage cybersecurity risks, defend cybersecurity assets, identify various types of common threats, evaluate the organization’s security, collect and analyze cybersecurity intelligence, and remediate and report incidents as they occur.

Audience
- Cybersecurity Analyst
- Security Administrators
- Incident Responders
- Security Auditors
- Security Managers

Prerequisites
- At least two years (recommended) of experience or education in computer network security technology or a related field.
- The ability or curiosity to recognize information security vulnerabilities and threats in the context of risk management.
- Foundational knowledge of the concepts and operational framework of common assurance safeguards in network environments. Safeguards include, but are not limited to, firewalls, intrusion prevention systems, and VPNs.
- General knowledge of the concepts and operational framework of common assurance safeguards in computing environments. Safeguards include, but are not limited to, basic authentication and authorization, resource permissions, and anti-malware mechanisms.
- Foundation-level skills with some of the common operating systems for computing environments.
- Entry-level understanding of some of the common concepts for network environments, such as routing and switching.
- General or practical knowledge of major TCP/IP networking protocols, including, but not limited to, TCP, IP, UDP, DNS, HTTP, ARP, ICMP, and DHCP.

What You’ll Learn
- Assess cybersecurity risks to the organization.
• Analyze the threat landscape.
• Analyze various reconnaissance threats to computing and network environments.
• Analyze various attacks on computing and network environments.
• Analyze various post-attack techniques.
• Assess the organization's security posture through auditing, vulnerability management, and penetration testing.
• Collect cybersecurity intelligence from various network-based and host-based sources.
• Analyze log data to reveal evidence of threats and incidents.
• Perform active asset and network analysis to detect incidents.
• Respond to cybersecurity incidents using containment, mitigation, and recovery tactics.
• Investigate cybersecurity incidents using forensic analysis techniques.
Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)

Duration: 5 Day Training

Course Description
The ENCOR - Implementing and Operating Cisco Enterprise Network Core Technologies v1.2 course 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.

Audience
- Mid-level network engineers
- Network administrators
- Network support technicians
- Help desk technicians

Prerequisites
- CCNA

What You'll Learn
- 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, while defining the Ternary Content
- Addressable Memory (TCAM) and Content Addressable Memory (CAM), along with process switching, fast switching, and Cisco Express Forwarding concepts
- Troubleshoot Layer 2 connectivity using VLANs and trunking
- Implementation of redundant switched networks using Spanning Tree Protocol
- Troubleshooting link aggregation using Etherchannel
- Describe the features, metrics, and path selection concepts of Enhanced Interior Gateway Routing Protocol (EIGRP)
- Implementation and optimization of Open Shortest Path First (OSPF)v2 and OSPFv3, including adjacencies, packet types, and areas, summarization, and route filtering for IPv4 and IPv6
- Implementing External Border Gateway Protocol (EBGP) interdomain routing, path selection, and single and dual-homed networking
- Implementing network redundancy using protocols including Hot Standby Routing Protocol (HSRP) and Virtual Router Redundancy Protocol (VRRP)
- Implementing internet connectivity within Enterprise using static and dynamic Network Address Translation (NAT)
● Describe the virtualization technology of servers, switches, and the various network devices and components
● Implementing overlay technologies such as Virtual Routing and Forwarding (VRF), Generic Routing Encapsulation (GRE), VPN, and Location Identifier Separation Protocol (LISP)
● Describe the components and concepts of wireless networking including Radio Frequency (RF) and antenna characteristics, and define the specific wireless standards
● Describe the various wireless deployment models available, include autonomous Access Point (AP) deployments and cloud-based designs within the centralized Cisco Wireless LAN Controller (WLC) architecture
● Describe wireless roaming and location services
● Describe how APs communicate with WLCs to obtain software, configurations, and centralized management
● Configure and verify Extensible Authentication Protocol (EAP), WebAuth, and Pre-shared Key (PSK) wireless client authentication on a WLC
● Troubleshoot wireless client connectivity issues using various available tools
● Troubleshooting Enterprise networks using services such as Network Time Protocol (NTP), Simple Network Management Protocol (SNMP), Cisco Internetwork Operating System (Cisco IOS®) IP Service Level Agreements (SLAs), NetFlow, and Cisco IOS Embedded Event Manager
● Explain the use of available network analysis and troubleshooting tools, which include show and debug commands, as well as best practices in troubleshooting
● Configure secure administrative access for Cisco IOS devices using the Command-Line Interface (CLI) access, Role-Based Access Control (RBAC), Access Control List (ACL), and Secure Shell (SSH), and explore device hardening concepts to secure devices from less secure applications, such as Telnet and HTTP
● Implement scalable administration using Authentication, Authorization, and Accounting (AAA) and the local database, while exploring the features and benefits
● Describe the enterprise network security architecture, including the purpose and function of VPNs, content security, logging, endpoint security, personal firewalls, and other security features
● Explain the purpose, function, features, and workflow of Cisco DNA Center™ Assurance for Intent-Based Networking, for network visibility, proactive monitoring, and application experience
● Describe the components and features of the Cisco SD-Access solution, including the nodes, fabric control plane, and data plane, while illustrating the purpose and function of the Virtual Extensible LAN (VXLAN) gateways
● Define the components and features of Cisco SD-WAN solutions, including the orchestration plane, management plane, control plane, and data plane
● Describe the concepts, purpose, and features of multicast protocols, including Internet Group Management Protocol (IGMP) v2/v3, Protocol-Independent Multicast (PIM) dense mode/sparse mode, and rendezvous points
● 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
● Describe APIs in Cisco DNA Center and vManage
Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

Duration: 5 Day Training

Course Description
The ENARSI - Implementing Cisco Enterprise Advanced Routing and Services v1.0 course 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 ENCOR - Implementing and Operating Cisco Enterprise Network Core Technologies v1.0 course.

Audience
- Enterprise network engineers
- System engineers
- System administrators
- Network administrators

Prerequisites
- General understanding of network fundamentals
- Basic knowledge of how to implement LANs
- General understanding of how to manage network devices
- General understanding of how to secure network devices
- Basic knowledge of network automation
- ENCOR

What You'll Learn
- Configure classic Enhanced Interior Gateway Routing Protocol (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 Open Shortest Path First (OSPF)v2 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 Policy-Based Routing (PBR) and IP service level agreement (SLA)
- Configure Multiprotocol-Border Gateway Protocol (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 Multiprotocol Label Switching (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 Internetwork Operating System (IOS®) Dynamic Multipoint VPNs (DMVPNs)

● Implement Dynamic Host Configuration Protocol (DHCP)
● Describe the tools available to secure the IPV6 first hop
● Troubleshoot Cisco router security features
● Troubleshoot infrastructure security and services

Implementing and Operating Cisco Security Core Technologies (SCOR) v1.0

Duration: 5 Day Training

Course Description
The Implementing and Operating Cisco Security Core Technologies (SCOR) course helps to prepare for Cisco CCNP security and CCIE security certifications and senior-level security roles. This course will teach the skills and technologies needed to implement core Cisco security solutions to provide advanced threat protection against cybersecurity attacks. This course will cover security for networks, cloud and content, endpoint protection, secure network access, visibility, and enforcements.

Audience
● Consulting systems engineer
● Network administrator
● Network designer
● Network engineer
● Network manager
● Security engineer
● Systems engineer
● Technical solutions architect

Prerequisites
● Skills and knowledge equivalent to those learned in CCNA v1.0 course
● Familiarity with Ethernet and TCP/IP networking
● Working knowledge of the Windows OS
● Working knowledge of Cisco IOS networking and concepts
● Familiarity with basics of networking security concepts

What You’ll Learn
● 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 Internetwork Operating System
- Describe and deploy Cisco secure remote access connectivity solutions and describe how to configure 802.1X and EAP authentication
- Provide basic understanding of endpoint security and describe Advanced Malware Protection (APT) for Endpoints architecture and basic features
- Examine various defense on Cisco device that protect the control and management plane
- 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 environments.

Understanding Cisco Cybersecurity Operations Fundamentals v1.0 (200-201)

Duration: 5 Day Training

Course Description
Cisco Certified CyberOps Associate validates the tactical knowledge and skills that Security Operations Center (SOC) teams need to detect and respond to cybersecurity threats. The course and training cover knowledge and skills related to security concepts, security monitoring, host-based analysis, network intrusion analysis, and security policies and procedures.

Audience
- SOC Personnel
- Cybersecurity Analysts
- Incident Responders
- Network Administrators
- Security Administrators

Prerequisites
No formal prerequisites

What You'll Learn
- Security concepts to include the CIA triad, security terms and concepts
Network Fundamentals

Duration: 5 Days (10 students minimum / 20 students maximum)

Course Description
A course that teaches basic networking fundamentals, how to configure workstations for the network, analyze network traffic using basic tools understand the basics to switch and router configurations and how to do IPv4 addressing and sub-netting.

Included: Courseware and labs
Audience
New IT professionals who want to learn the basics of a structured, layered approach to networking, including the fundamentals of network hardware and components, network protocols, IP addressing and subnetting, and various tools used in network monitoring and troubleshooting.

Prerequisites
None. Entry-level and newly hired technical professionals

What You’ll Learn

- Basics of layered network protocols and compare the two primary reference models: OSI and TCP/IP
- Inspect a structured cabling system, including the proper use and installation of UTP and fiber optic cables
- Configure a workstation to connect to a network
- Ethernet operations and the use of VLANs by examining the configuration and operation of switches on a network
- Spanning Tree operation as a method of eliminating broadcast storms on a switched network
- Configure a Wi-Fi router for operation on a SOHO network, including security, SSID, and Wi-Fi channel
- Various IP addressing considerations, including binary to decimal conversion, dotted decimal notation, classful vs. classless addressing, private vs. public addresses, and the use of network masking
- Create a subnet for a small network, selecting the correct masks for various situations to accommodate the current number of hosts in each subnet and to also allow for future growth
- Operation of various TCP/IP protocols on a network, including connectionless and connection-oriented communications using UDP and TCP, translation between private and public addresses using NAT, and support protocols such as ARP, DNS, and DHCP
- Router configurations to determine the function of various routing protocols, including RIP, IGRP, and OSPF, within and between networks
- Various WAN technologies, including circuit switched solutions such as leased lines and packet switched solutions such as Carrier Ethernet, and determine the best WAN connectivity solution for a given corporate network
- Use a protocol analyzer to capture and view network traffic, including e-mail, instant message exchanges, and web transactions
- Basic network security implementations by testing the impact a router that has been configured as a firewall has on the flow of traffic through a network
- Research the suitability of popular anti-malware suites for mitigating network security threats
- Research Mobile Device Management (MDM) solutions to support BYOD deployments
Implementing Secure Solutions with Virtual Private Networks (SVPN) v1.0

Duration: 5 Day Training

Course Description
The SVPN v1.0 course teaches how to implement, configure, monitor, and support enterprise VPN solutions. The course will cover and provide the knowledge and skills to deploy and troubleshoot traditional IPSec, DMVPN, FlexVPN, and remote access VPN to create secure and encrypted data, remote accessibility, and increased privacy.

Audience
- Network security engineer
- CCNP Security candidate
- Network designer
- Network engineer
- Network manager
- Security engineer
- Systems engineer
- Technical solutions architect

Prerequisites
- Implementing and Administering Cisco Solutions (CCNA)
- Implementing and Operating Cisco Security Core Technologies (SCOR)
- Familiarity with various Cisco router and firewall command modes
- Experience navigating and managing Cisco routers and firewalls
- Clear understanding of the benefits of site-to-site and Remote Access VPN options

What You’ll Learn
- Introduce site-to-site VPN options available on Cisco router and firewalls
- Introduce remote access VPN options available on Cisco router and firewalls
- Review site-to-site and remote access VPN design options
- Review troubleshooting processes for various VPN options available on Cisco router and firewalls
CompTIA Cybersecurity Analyst (CySA+)

Duration: 5 Day Training (Client Location)

Course Description
Learn about the duties of cybersecurity analysts who are responsible for monitoring and detecting security incidents in information systems and networks and for executing a proper response to such incidents. Gain the tools and tactics to manage cybersecurity risks, identify various types of common threats, evaluate an organization's security, collect and analyze cybersecurity intelligence, and handle incidents as they occur.

Audience
- IT Security Analyst
- Security Operations Center (SOC) Analyst
- Vulnerability Analyst
- Cybersecurity Specialist
- Threat Intelligence Analyst
- Security Engineer

Prerequisites
Before attending this course, students must:
- At least two years (recommended) of experience in computer network security technology or a related field.
- The ability to recognize information security vulnerabilities and threats in the context of risk management.
- Foundation-level operational skills with some of the common operating systems for computing environments.
- Foundational knowledge of the concepts and operational framework of common assurance safeguards in computing environments. Safeguards include, but are not limited to, basic authentication and authorization, resource permissions, and anti-malware mechanisms.
- Foundation-level understanding of some of the common concepts for network environments, such as routing and switching.
- Foundational knowledge of major TCP/IP networking protocols including, but not limited to, TCP, IP, UDP, DNS, HTTP, ARP, ICMP, and DHCP.
- Foundational knowledge of the concepts and operational framework of common assurance safeguards in network environments. Safeguards include, but are not limited to, firewalls, intrusion prevention systems, and VPNs.

What You’ll Learn
After completing this course, students will be able to:
- Assess information security risk in computing and network environments.
- Analyze reconnaissance threats to computing and network environments.
- Analyze attacks on computing and network environments.
● Analyze post-attack techniques on computing and network environments.
● Implement a vulnerability management program.
● Collect cybersecurity intelligence.
● Analyze data collected from security and event logs.
● Perform active analysis on assets and networks.
● Respond to cybersecurity incidents.
● Investigate cybersecurity incidents.
● Address security issues with the organization's technology architecture.

CompTIA Advanced Security Practitioner (CASP)

Duration: 5 Day Training (Client Location)

Course Description
In this course, you will expand on your knowledge of information security to apply more advanced principles that will keep your organization safe from the many ways it can be threatened. Today's IT climate demands individuals with demonstrable skills, and the information and activities in this course can help you develop the skill set you need to confidently perform your duties as an advanced security professional.

Audience
This course is designed for IT professionals in the cybersecurity industry whose primary job responsibility is to secure complex enterprise environments. The target student should have real-world experience with the technical administration of these enterprise environments.

Prerequisites
Before attending this course, students must:

● Knowledge of identity and access management (IAM) concepts and common implementations, such as authentication factors and directory services.
● Knowledge of cryptographic concepts and common implementations, such as Secure Sockets Layer/Transport Layer Security (SSL/TLS) and public key infrastructure (PKI).
● Knowledge of computer networking concepts and implementations, such as the TCP/IP model and configuration of routers and switches.
● Knowledge of common security technologies used to safeguard the enterprise, such as anti-malware solutions, firewalls, and VPNs.

What You'll Learn
After completing this course, students will be able to:

● Support IT governance in the enterprise with an emphasis on managing risk.
● Leverage collaboration tools and technology to support enterprise security.
● Use research and analysis to secure the enterprise.
● Integrate advanced authentication and authorization techniques.
● Implement cryptographic techniques.
- Implement security controls for hosts.
- Implement security controls for mobile devices.
- Implement network security.
- Implement security in the systems and software development lifecycle.
- Integrate hosts, storage, networks, applications, virtual environments, and cloud technologies in a secure enterprise architecture.
- Conduct security assessments.
- Respond to and recover from security incidents

CompTIA Cloud+ (10 students minimum / 20 students Maximum)

*Duration: 5 Days*

**Course Description**
The course is intended for IT professionals who wish to develop cloud computing skills to enable them to move IT workloads to the cloud and integrate products and services from different providers and industries. The focus is to ensure that cloud deployments are secure, that automation and orchestration are used effectively to bring business value from the cloud, and that costs are controlled through effective management of cloud vendors.

Included: Courseware and labs

**Audience**
- System Administrator
- Systems Engineer
- Network Administrator
- Network Engineer
- Cloud Developer
- Cloud Specialist
- Project Manager, Cloud Computing Services
- Cloud Engineer
- Manager, Data Center SAN
- Business Analyst, Cloud Computing

**Prerequisites**
Students should also have familiarity with any major hypervisor technologies for server virtualization, as well as basic knowledge of common cloud service models and common cloud deployment models.

**What You'll Learn**
The Official CompTIA Cloud+ Guide (Exam CV0-002) will give students the skills necessary to evaluate and implement standard cloud deployments. Students will use cloud technologies, including network, storage, and virtualization components, to create cloud solutions. Students will also manage workload migrations, manage cloud vendors to control costs, use automation and orchestration to bring business value from cloud solutions, and ensure cloud security. This guide provides full coverage of the objectives for the CompTIA Cloud+ certification and will help prepare students to take the exam.
CompTIA Linux+ (10 students minimum / 20 students Maximum)

Duration: 5 Days

Course Description
CompTIA Linux+ validates the skills of IT professionals with hands-on experience configuring, monitoring, and supporting servers running the Linux operating system. The new exam has an increased focus on the following topics: security, kernel modules, storage & visualization, device management at an enterprise level, git & automation, networking & firewalls, server side & command line, server (vs. client-based) coverage, troubleshooting and SELinux.

Included: Courseware and labs

Audience

- New and experienced systems administrators, preferably with three to five years of open-source platforms' experience.
- Those involved in managing servers and devices running the Linux operating system.
- IT professionals willing to gain competencies in Linux-based systems, network administration, and management.

Prerequisites
12 months of hands-on experience configuring, monitoring, and supporting servers running the Linux OS

What You'll Learn

- Hardware and System Configuration
- Systems Operation and Maintenance
- Security
- Linux Troubleshooting and Diagnostics
- Automation and Scripting

CompTIA PenTest+ (PTO-001)

Duration: 5 Day Training

Course Description
The CompTIA PenTest+ will teach and verify the knowledge and skills required to plan and scope an assessment, understand legal and compliance requirements, perform vulnerability scanning and penetration testing, analyze data, and effectively report and communicate results.
Audience

- Security administrator
- Penetration testers
- Security analyst
- SOC personnel
- Incident response personnel

Prerequisites

- Network+, Security+ or equivalent knowledge
- Minimum 3-4 years of hand-on information security or related experience

What You'll Learn

- Plan and scope an assessment
- Understand legal and compliance requirements
- Perform vulnerability scanning and penetration testing using appropriate tools and techniques
- Analyze the results
- Produce written reports containing proposed remediation techniques
- Effectively communicate results to management
- Provide practical recommendations
EC-Council Certified Chief Information Security Officer (CCISO)

Duration: 5 Day Training

Course Description
The CCISO course is designed to bring middle managers up to the level of Executive leaders and hone the skills of existing InfoSec leaders. CCISO is not a technical course but a leadership course designed specifically for lead experienced InfoSec processionals. This course is designed to allow and encourage new and existing CISOs to continually improve their own processes and programs.

Audience
- Upper-level management
- Experienced security professionals
- Existing experienced security managers
- Experienced security program managers

Prerequisites
- Applicants that attend training must apply via the CCISO Eligibility Application showing 5 years of experience in at least 3 of the CCISO domains.

What You'll Learn
- Governance, Risk, Compliance
- Information security controls and audit management
- Security program management and operation
- Information security core competencies
- Strategic planning, finance, procurement, and third-party management

EC-Council Certified Network Defender (CND)

Duration: 5 Day Training

Course Description
The CND course is designed to cover domains such as network defense management, network perimeter protection, endpoint protection, application and data protection, enterprise virtual, cloud, and wireless network protection, incident detection and response, and threat prediction. The skills and knowledge learned in this course can be applied to current network security technologies and operations.
**Audience**

- Network administrator
- Network security administrators
- Network security engineer
- Network defense technicians
- CND analyst
- Security analyst
- Security operator
- Network operations personnel
- Cybersecurity Red Team members

**Prerequisites**

No formal prerequisites, however, students should have 3-5 years’ experience in network operations and security

**What You'll Learn**

- Network attacks and defense strategies
- Administrative network security
- Technical network security
- Network perimeter security
- Endpoint security for Windows systems
- Endpoint security for Linux systems
- Endpoint security for mobile devices
- Endpoint security for IoT devices
- Administrative application security
- Data security
- Enterprise virtual network security
- Enterprise cloud network security
- Network traffic monitoring and analysis
- Network logs monitoring and analysis
- Incident response and forensic investigation
- Business continuity and disaster recovery
- Risk anticipation with risk management
- Threat assessment with attack surface analysis
- Threat prediction with Cyber Threat Intelligence
ISACA Certified Information Systems Auditor (CISA)

Duration: 5 Days (10 students minimum / 20 students maximum)

Course Description
The technical skills and practices that CISA promotes and evaluates are the building blocks of success in the field. Possessing the CISA designation demonstrates proficiency and is the basis for measurement in the profession. With a growing demand for professionals possessing IS audit, control and security skills, CISA has become a preferred certification program by individuals and organizations around the world. CISA certification signifies commitment to serving an organization and the IS audit, control and security industry with distinction. In addition, it presents a number of professional and personal benefits.

Included: Courseware

Audience
This course is designed for experienced information security professionals who are preparing to take the CISA exam.

Prerequisites
This course is designed for experienced information security professionals who are preparing to take the CISA exam.

What You'll Learn

- Prepare for and pass the Certified Information Systems Auditor (CISA) Exam
- Develop and implement a risk-based IT audit strategy in compliance with IT audit standards
- Evaluate the effectiveness of an IT governance structure
- Ensure that the IT organizational structure and human resources (personnel) management support the organization's strategies and objectives
- Review the information security policies, standards, and procedures for completeness and alignment with generally accepted practices
(ISC)2 Certified Software Lifecycle Professional

Duration: 5 Day Training

Course Description
The CSSLP shows that the student has the advanced technical skills and knowledge necessary for authentication, authorization, and accounting throughout the SDLC using best practices, policies, and procedures. This course will teach how to incorporate security practices into each phase of the SDLC.

Audience
- Software developers
- Software testers
- Software architects
- Software engineers
- Application security specialist
- Software program manager
- QA tester
- Penetration tester
- Software procurement analyst
- Security manager
- IT Director/Manager

Prerequisites
- A candidate is required to have a minimum of four years of cumulative paid Software Development Lifecycle (SDLC) processional work experience in or more of the eight domains with a four-year degree leading to a Baccalaureate, or regional equivalent in Computer Science, IT, or related fields.
- If the required experience is no met, the candidate will have five years to earn the four years required experience.

What You’ll Learn
- Secure software concepts
- Secure software requirements
- Secure software architecture and design
- Secure software implementation
- Secure software testing
- Secure software lifecycle management
- Secure software deployment, operations, and maintenance
- Secure software supply chain
Course Description
The information security architect plays a vital role to implement a sound security program as an expert shoudering the role between C-suite and upper managerial levels. This course will validate the technical skills in security architecture. This course will teach the knowledge and skillset to analyze various security solutions and provide risk-based guidance to higher management.

Audience

- System architects
- Business analysts
- System and network designers
- Chief Security Officers
- Chief Technology Officers
- IT Director/Manager

Prerequisites

- Candidates must be a CISSP in good standing and have minimum of 2 years of full-time and cumulative paid work experience in at least one of the six CISSP-ISSAP CBK domains.

What You'll Learn

- Architecture for Governance, Compliance, and Risk Management
- Security architecture modeling
- Infrastructure security architecture
- Identify and Access Management (IAM) architecture
- Architecture for application security
- Security operations architecture

Course Description
This course is designed for CISSPs who specialize in the practical application of systems engineering principles and processes to develop secure systems. This course provides a deep
understanding of the broad spectrum of topics and addresses new threats, technologies, regulations, standards, and practices.

**Audience**

- Senior systems engineer
- Information assurance systems engineer
- Information Assurance Officer
- Information assurance analyst
- Senior security analyst

**Prerequisites**

- Candidates must be a CISSP in good standing and have two years cumulative paid work experience in one or more of the five domains of the CISSP-ISSEP.

**What You'll Learn**

- Systems security engineering foundations
- Risk management
- Security planning and design
- Systems implementation, verification, and validation
- Secure operations, change management and disposal

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

*Duration: 5 Day Training*

**Course Description**

This course will teach the student how so specialize in establishing, presenting, and governing information security programs, and demonstrate management and leadership skills. ISSMPs direct the alignment of security programs with the organization's mission, goals, and strategies in order to meet enterprise financial and operational requirements in support of its desired risk position.

**Audience**

- Chief Information Officer
- Chief Information Security Officer
- Chief Technology Officer
- Senior security executives and management
Prerequisites
Candidates must be a CISSP in good standing and have two years cumulative paid work experience in one or more of the six domains of the CISSP-ISSMP.

What You'll Learn

- Leadership and business management
- Systems lifecycle management
- Risk management
- Threat intelligence and incident management
- Contingency management
- Laws, ethics, and security compliance management
ITIL® 4 Strategist: Direct, Plan and Improve

Duration: 3 Day Training

Course Description
This course provides IT leaders, practitioners and support staff with an understanding of all types of engagement and interactions between a service provider and their customers, users, suppliers and partners. It provides practitioners with a practical and strategic method for planning and delivering continual improvement with the necessary agility. The course is based on the ITIL 4 best practice service value system featured in the latest guidelines.

Audience
- Individuals continuing of their journey in service management
- ITSM managers and aspiring ITSM managers
- Managers of all levels involved in shaping direction and strategy or developing a continually improving team

Prerequisites
- ITIL 4 Foundation Certificate

What You’ll Learn
- Understand the Key Concepts of Direct, Plan & Improve
- Understand the scope of what is to be directed and/or planned, and know how to use key principles and methods of direction and planning in that context
- Understand the role of governance, risk and compliance (GRC) and know how to integrate the principles and methods into the service value system
- Understand and know how to use the key principles and methods of continual improvement for all types of improvements
- Understand and know how to use the key principles and methods of Communication and Organizational Change Management to direction, planning and improvement
- Understand and know how to use the key principles and methods of measurement and reporting in direction, planning and improvement. Understand and know how to direct, plan and improve value streams and practices

ITIL® 4 Specialist: Drive Stakeholder Value

Duration: 3 Day Training
Course Description
Integrate different value streams and activities to create, deliver and support IT-enabled products and services, and relevant practices, methods and tools.

This course provides those IT leaders, practitioners and support staff who already hold the ITIL 4 foundation qualification with an understanding of all types of engagement and interactions between a service provider and their customers, users, suppliers and partners, including key CX, UX and journey mapping concepts. The course is based on the ITIL 4 best practice service value system featured in the latest guidelines.

Audience
- Individuals continuing their journey in service management
- ITSM managers and aspiring ITSM managers
- ITSM practitioners who are responsible for managing and integrating stakeholders, focus on the customer journey and experience, and/or are responsible for fostering relationships with partners and suppliers

Prerequisites
- ITIL 4 Foundation Certificate

What You'll Learn
- Understand how customer journeys are designed
- Know how to target markets and stakeholders
- Know how to foster stakeholder relationships
- Know how to shape demand and define service offerings
- Know how to align expectations and agree details of services
- Know how to onboard and offboard customers and users
- Know how to act together to ensure continual value co-creation (service consumption / provisioning)
- Know how to realize and validate service value

ITIL®4 Specialist: High-Velocity IT

Duration: 3 Day Training

Course Description
This course provides an understanding of the ways in which digital organizations and digital operating models function in high velocity environments, focusing on rapid delivery of products & services to obtain maximum value. The qualification will provide the candidate with an understanding of working practices such as Agile and Lean, and technical practices and technologies such as Cloud, Automation, and Automatic Testing. The course is based on the ITIL 4 best practice service value system featured in the latest guidelines.
Audience

- Individuals continuing of their journey in service management
- ITSM managers and aspiring ITSM managers
- IT managers and practitioners involved in digital services or working in digital transformation projects, working within or towards high velocity environments

Prerequisites

- ITIL 4 Foundation Certificate

What You'll Learn

- Understand concepts regarding the high-velocity nature of the digital enterprise, including the demand it places on IT
- Understand the digital product lifecycle in terms of the ITIL ‘operating model’
- Understand the importance of the ITIL Guiding Principles and other fundamental concepts for delivering high velocity IT
- Know how to contribute to achieving value with digital products

ITIL Leader Digital and IT Strategy

Duration: 3 Day Training

Course Description

ITIL Strategic Leader: Digital & IT Strategy will focus on the alignment of digital business strategy with IT strategy. The module also covers how disruption from new technologies are impacting organizations in every industry and how business leaders are responding. The pace of evolution in the digital world has never been so fast and organizations need to be flexible and adapt to the ever-changing environment if they want to keep providing value to their customers while remaining competitive in the marketplace.

Audience

- Business Directors
- Heads of Departments
- Aspiring Business Leaders

Prerequisites

- ITIL 4 Foundation Certificate

What You'll Learn

- Architecture Management
This course adds a new perspective to the ITIL suite and elevates the discussion around ITIL concepts to a strategic level among business leaders and aspiring leaders. The module will help IT leaders and aspiring leaders build and implement effective IT and digital strategy that can tackle digital disruption and drive success.

**ITIL® 4 Specialist: Create, Deliver and Support**

*Duration: 3 Day Training*

**Course Description**

Integrate different value streams and activities to create, deliver and support IT-enabled products and services, and relevant practices, methods and tools.

This course provides those IT leaders, practitioners and support staff who already hold the ITIL 4 foundation qualification with an understanding of how to integrate different value streams and activities to create, deliver and support IT-enabled products and services, and relevant practices, methods and tools. It gives them an understanding of service performance, service quality and improvement methods. The course is based on the ITIL 4 best practice service value system featured in the latest 2019 guidelines.

**Audience**

- Individuals continuing their journey in service management
- ITSM managers and aspiring ITSM managers
- ITSM practitioners managing the operation of IT-enabled & digital products and services, and those responsible for the end-to-end delivery

**Prerequisites**

- ITIL 4 Foundation Certificate

**What You’ll Learn**

- Understand how to plan and build a service value stream to create, deliver and support services
- Know how relevant ITIL 4 practices contribute to creation, delivery and support across the SVS and value streams
- Know how to create, deliver and support services
- Preparation to sit the ITIL 4 Create, Deliver, Support examination
- Understand the role of governance, risk and compliance and how to integrate the principles and methods into the service value system
- Understand and know how to use the key principles and methods of Organizational Change Management to direction, planning and improvement
- Preparation to sit the ITIL 4 foundation examination
**Windows 10 Managing Modern Desktops Course**

*Duration: 5 Day Training (Client Location)*

**Course Description**
This five-day course: Modern Desktop Administrators deploy, configure, secure, manage, and monitor devices and client applications in an enterprise environment.

**Audience**
The Modern Desktop Administrator deploys, configures, secures, manages, and monitors devices and client applications in an enterprise environment. Responsibilities include managing identity, access, policies, updates, and apps.

**Prerequisites**
Before attending this course, students must have:
The Modern Desktop Administrator must be familiar with M365 workloads and must have strong skills and experience of deploying, configuring, and maintaining Windows 10 and non-Windows devices.

**What You'll Learn**
After completing this course, students will be able to:
- Deploy and update operating systems
- Manage policies and profiles
- Manage and Protect Devices
- Manage apps and data

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**Administering System Center Configuration Manager Course**

*Duration: 5 Day Training (Client Location)*

**Course Description**
This five-day course describes how to use Configuration Manager and its associated site systems to efficiently manage network resources. In this five-day course, you will learn day-to-day management tasks, including how to manage applications, client health, hardware and software inventory, operating system deployment, and software updates by using Configuration Manager.

You also will learn how to optimize System Center Endpoint Protection, manage compliance, and create management queries and reports.

**Audience**
This course is for experienced information technology (IT) professionals, typically described as Enterprise Desktop Administrators (EDAs). These EDAs deploy, manage, and maintain PCs, devices, and applications across medium, large, and enterprise organizations. A significant portion of this
audience uses, or intends to use, the latest release of Configuration Manager to manage and deploy PCs, devices, and applications.

Prerequisites
Before attending this course, students must have:

- Networking fundamentals, including common networking protocols, topologies, hardware, media, routing, switching, and addressing.
- Active Directory Domain Services (AD DS) principles and fundamentals of AD DS management. Installation, configuration, and troubleshooting for Windows-based personal computers.
- Basic concepts of public key infrastructure (PKI) security.
- Basic understanding of scripting and Windows PowerShell syntax. Basic understanding of Windows Server roles and services.
- Basic understanding of the configuration options for iOS, Android, and Windows Mobile device platforms.

What You'll Learn
After completing this course, students will be able to:

- Describe the features Configuration Manager and Intune include, and explain how you can use these features to manage PCs and mobile devices in an enterprise environment.
- Analyze data by using queries and reports.
- Prepare a management infrastructure, including configuring boundaries, boundary groups, and resource discovery, and integrating mobile-device management with Microsoft Exchange Server.
- Deploy and manage the Configuration Manager client.
- Configure, manage, and monitor hardware and software inventory, and use Asset Intelligence and software metering.
- Identify and configure the most appropriate method to distribute and manage content used for deployments.
- Distribute, deploy, and monitor applications for managed users and systems.
- Maintain software updates for PCs that Configuration Manager manages.
- Implement Endpoint Protection for managed PCs.
- Manage configuration items, baselines, and profiles to assess and configure compliance settings and data access for users and devices.
- Configure an operating-system deployment strategy by using Configuration Manager.
- Manage and maintain a Configuration Manager site.

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Administering Windows Server® 2012 Course

Duration: 5 Day Training (Client Location)

Course Description
Get hands-on instruction and practice administering Windows Server 2012, including Windows Server 2012 R2, in this five-day Microsoft Official Course.
Audience
This course is intended for Information Technology (IT) Professionals with hands on experience working in a Windows server 2008 or Windows Server 2012 environment who wish to acquire the skills and knowledge necessary to be able to manage and maintain the core infrastructure required for a Windows Server 2012 and Windows Server 2012 R2 environment.

Prerequisites
Before attending this course, students must have:

Knowledge and skills concerning the initial implementation and configuration of core Windows Server services including Active Directory Domain Services (AD DS), Networking Services and Microsoft Hyper-V.

What You’ll Learn
After completing this course, students will be able to:

- Configure and Troubleshoot Domain Name System
- Maintain Active Directory Domain Services
- Manage User and Service Accounts
- Implement Group Policy Infrastructure
- Manage User Desktops using Group Policy
- Install, Configure and Troubleshoot Network Policy Server
- Implement Network Access Protection
- Implement Remote Access
- Optimize File Services
- Configure Encryption and Advanced Auditing
- Deploy and Maintain Server Images
- Implement Update Managements
- Monitor Windows Server 2012

Installation, Storage, and Compute with Windows Server 2016 Course

Duration: 5 Day Training (Client Location)

Course Description
This five-day course is designed primarily for IT professionals who have some experience with Windows Server. It is designed for professionals who will be responsible for managing storage and compute by using Windows Server 2016, and who need to understand the scenarios, requirements, and storage and compute options that are available and applicable to Windows Server 2016.

Audience
This course is intended for IT professionals who have some experience working with Windows Server, and who are looking for a single five-day course that covers storage and compute technologies in Windows Server 2016. This course will help them update their knowledge and skills related to storage and computation for Windows Server 2016.
Prerequisites
Before attending this course, students must have:

- A basic understanding of networking fundamentals.
- An awareness and understanding of security best practices. An understanding of basic AD DS concepts.
- Basic knowledge of server hardware.
- Experience supporting and configuring Windows client operating systems such as Windows 8 or Windows 10.

What You’ll Learn
After completing this course, students will be able 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.

Microsoft: Security Fundamentals Course

Duration: 3 Day Training (Client Location)

Course Description
This three-day MTA Training course helps you prepare for Microsoft Technology Associate Exam 98-367, and build an understanding of these topics: Security Layers, Operating System Security, Network Security, Security Software. This course leverages the same content as found in the Microsoft Official Academic Course (MOAC) for this exam. This course is updated in support of Windows 10.

Audience
The Microsoft Technology Associate (MTA) is Microsoft’s newest suite of technology certification exams that validate fundamental knowledge needed to begin building a career using Microsoft
technologies. This program provides an appropriate entry point to a future career in technology and assumes some hands-on experience or training but does not assume on-the-job experience.

Prerequisites
There are no prerequisites for this course.

What You'll Learn
After completing this course, students will be able to:

- Understand Security Layers
- Understand Operating System Security
- Understand Network Security
- Understand Security Software

Microsoft: Windows Networking Fundamentals Course

Duration: 3 Day Training (Client Location)

Course Description
This three-day MTA Training course helps you prepare for Microsoft Technology Associate Exam 98-366, and build an understanding of these topics: Network Infrastructures, Network Hardware, and Protocols and Services. This course leverages the same content as found in the Microsoft Official Academic Course (MOAC) for this exam. This course is updated in support of Windows 10.

Audience
The Microsoft Technology Associate (MTA) is Microsoft's newest suite of technology certification exams that validate fundamental knowledge needed to begin building a career using Microsoft technologies. This program provides an appropriate entry point to a future career in technology and assumes some hands-on experience or training but does not assume on-the-job experience.

Prerequisites
There are no prerequisites for this course.

What You'll Learn
After completing this course, students will be able to:

- Understand Network Infrastructure
- Understand Network Hardware
- Understand Protocols and Services
Microsoft 365 Certified: Developer Associate
Building applications and solutions with Microsoft 365 core services
MS-600T00-AC

Duration: 5 Day Training

Course Description
This course covers five central elements of Microsoft 365 platform – implementing Microsoft Identity, working with Microsoft Graph, extending and customizing SharePoint, extending Teams, and extending Office. In this course, students will learn how to implement Microsoft Identity and work with Microsoft Graph. Students will also gain the knowledge on UI elements (including Adaptive Cards and UI Fabric), Integration Points (including Microsoft Teams, Office Add-ins, SharePoint Framework, Actionable Messages), and determining workload platform targets. In implementing Microsoft Identity, students will learn to implement Microsoft identity including registering an application, implanting authentication, configuring permissions to consume an API, and creating a service to access Microsoft Graph. In working with Microsoft Graph, students will learn how to access user data, explore query parameters, manage a group lifecycle, access files, and optimize network traffic using Microsoft Graph. In extending and customizing SharePoint, students will learn about SharePoint Framework web parts, extensions, and how to package and deploy a SPFx solution. In extending Teams, students will look at the components of a Teams App, work with webhooks, tabs, and conversational bots. In extending Office, students work with Office Add-ins, task pane add-ins, JavaScript APIs, Office UI Fabric, and actionable messages with adaptive cards.

Audience
Students in this course are interested in Microsoft 365 development platform or in passing the Microsoft 365 Developer Associate certification exam.

Prerequisites
- 1-2 years experience as a developer. This course assumes students know how to code and have a basic understanding of REST APIs, JSON, OAuth2, OData, OpenID Connect, Microsoft identities including Azure AD and Microsoft accounts, Azure AD B2C, and permission/consent concepts.
- It is recommended that students have some experience developing solutions on Microsoft Teams, Office Add-ins, or SharePoint Framework through all phases of software development.

What You’ll Learn
- Implementing Microsoft Identity
- Working with Microsoft Graph
- Determining workload platform targets
- Integration Points, including Microsoft Teams, Office Add-ins, and SharePoint Framework
Microsoft 365 Certified: Enterprise Administrator Expert
Microsoft 365 Identity and Services - MS-100T00-AC

Duration: 10 Day Training

Course Description
This course covers six central elements of Microsoft 365 enterprise administration – Microsoft 365 tenant and service management, Microsoft 365 management, Microsoft 365 identity management, Microsoft 365 security management, Microsoft 365 compliance management, and Microsoft 365 device management.

Audience
This course is designed for persons who are aspiring to the Microsoft 365 Enterprise Admin role and have completed one of the Microsoft 365 role-based administrator certification paths.

Prerequisites
- Completed a role-based administrator course such as Messaging, Teamwork, Security and Compliance, or Collaboration.
- A proficient understanding of DNS and basic functional experience with Microsoft 365 services.
- A proficient understanding of general IT practices.

What You'll Learn
- Designing, configuring, and managing your Microsoft 365 tenant
- Microsoft 365 product functionality
- Configuring Microsoft 365
- Managing Microsoft 365 Apps for enterprise deployments
- Planning and implementing identity synchronization
- Implementing application and external access
- Microsoft 365 Security Metrics
- Microsoft 365 Security Services
- Microsoft 365 Threat Intelligence
- Data Governance in Microsoft 365
- Data Governance in Microsoft 365 Intelligence
- Search and Investigations
- Device Management
- Windows 10 Deployment Strategies
- Mobile Device Management

Microsoft 365 Certified: Fundamentals
Microsoft 365 Fundamentals - MS-900T01-AC

Duration: 1 Day Training
Course Description
This course provides foundational knowledge on the considerations and benefits of adopting cloud services and the Software as a Service (SaaS) cloud model, with a specific focus on Microsoft 365 cloud service offerings. You will begin by learning about cloud fundamentals, including an overview of cloud computing and specifically Microsoft cloud services. You will be introduced to Microsoft Azure, and you will examine the differences between Microsoft 365 and Office 365. You will then perform an in-depth review of Microsoft 365, including a comparison of Microsoft on-premises services versus Microsoft 365 cloud services, a review of enterprise mobility in Microsoft 365, and an analysis of how Microsoft 365 services provide collaboration. The course then analyzes how security, compliance, privacy, and trust are handled in Microsoft 365, and it concludes with a review of Microsoft 365 subscriptions, licenses, billing, and support.

Audience
This course is designed for Business Decision Makers and IT Professionals who aspire to deploy cloud services in their organization, or who are simply looking to acquire foundational knowledge on cloud fundamentals. This includes the considerations and benefits of adopting cloud services in general and the Software as a Service (SaaS) cloud model specifically, with a general focus on Microsoft 365 cloud service offerings.

Prerequisites
Students do not need to have any experience with Microsoft 365 before taking this course; however, a basic level of familiarity with computer technology and cloud computing is assumed.

What You'll Learn
- Describe cloud concepts
- Describe core Microsoft 365 services and concepts
- Describe security, compliance, privacy, and trust in Microsoft 365
- Describe Microsoft 365 pricing and support

Microsoft 365 Certified: Messaging Administrator Associate
Microsoft 365 Messaging - MS-203T00-AC

Duration: 5 Day Training

Course Description
This course examines the key elements of Microsoft 365 messaging administration, including message transport and mail flow, messaging security, hygiene, and compliance, messaging infrastructure, and hybrid messaging. This course is designed for IT Professionals who deploy and manage the messaging infrastructure for Microsoft 365 in their organization.
**Audience**
The Messaging Administrator deploys, configures, manages, and troubleshoots recipients, permissions, mail protection, mail flow, and public folders in both on-premises and cloud enterprise environments. Responsibilities include managing message hygiene, messaging infrastructure, and hybrid configuration and migration. To implement a secure hybrid topology that meets the business needs of a modern organization, the Messaging Administrator must collaborate with the Security Administrator and Microsoft 365 Enterprise Administrator. The Messaging Administrator should have a working knowledge of authentication types, licensing, and integration with Microsoft 365 applications.

**Prerequisites**
This course is designed for persons who are aspiring to the Microsoft 365 Messaging Administrator role.

**What You’ll Learn**
- Configure and manage the transport pipeline
- Manage and troubleshoot mail flow and transport issues
- Manage message hygiene and compliance
- Manage authentication for messaging
- Configure organizational settings and sharing
- Manage mobile devices
- Manage role-based permissions
- Create and manage recipient objects and resources
- Plan, implement, and troubleshoot public folders
- Plan a hybrid environment
- Perform mailbox migrations
- Deploy and troubleshoot a hybrid environment

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**Microsoft 365 Certified: Modern Desktop Administrator Associate**  
**Windows Client - MD-100T00-AC**

*Duration: 5 Day Training*

**Course Description**
In this course, students will learn how to support and configure Windows desktops in an organizational environment, plan and implement an operating system deployment strategy using modern deployment methods, as well as how to implement an update strategy. Students will develop skills that include learning how to install, customize, and update Windows 10 and later operating systems. Students will learn how to manage storage, files, and devices as well as how to configure network connectivity for Windows. Students will also learn how to secure the Windows OS and protect the data on the device. Students will also learn how to manage and troubleshoot Windows clients.
Students will be introduced to key components of modern management and co-management strategies. This course also covers what it takes to incorporate Microsoft Intune into your organization. Students will also learn about methods for deployment and management of apps and browser-based applications. Students will be introduced to the key concepts of security in modern management including authentication, identities, access, and compliance policies. Students will be introduced to technologies such as Azure Active Directory, Azure Information Protection and Microsoft Defender for Endpoint as well as how to leverage them to protect devices and data.

**Audience**
Candidates for this exam are IT professionals who perform installation, configuration, general local management and maintenance of Windows 10 and later core services. Candidates may also be familiar with enterprise scenarios and cloud-integrated services.

**Prerequisites**
- Basic understanding of computer networks and hardware concepts.
- Basic understanding of OS and Application concepts.
- Experience with using the Windows OS.

**What You'll Learn**
- 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 client, common threats and methods for mitigating against them.
- Troubleshoot Windows and application installations.
- Troubleshoot hardware and driver issues.
- Troubleshoot file issues and perform recoveries.
- 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.
Course Description
In this course you will learn how to secure user access to your organization’s resources. The course covers user password protection, multi-factor authentication, how to enable Azure Identity Protection, how to setup and use Azure AD Connect, and introduces you to conditional access in Microsoft 365. You will learn about threat protection technologies that help protect your Microsoft 365 environment. Specifically, you will learn about threat vectors and Microsoft’s security solutions to mitigate threats. You will learn about Secure Score, Exchange Online protection, Azure Advanced Threat Protection, Windows Defender Advanced Threat Protection, and threat management. In the course you will learn about information protection technologies that help secure your Microsoft 365 environment. The course discusses information rights managed content, message encryption, as well as labels, policies and rules that support data loss prevention and information protection. Lastly, you will learn about archiving and retention in Microsoft 365 as well as data governance and how to conduct content searches and investigations. This course covers data retention policies and tags, in-place records management for SharePoint, email retention, and how to conduct content searches that support eDiscovery investigations.

Audience
The Microsoft 365 Security administrator collaborates with the Microsoft 365 Enterprise Administrator, business stakeholders and other workload administrators to plan and implement security strategies and to ensures that the solutions comply with the policies and regulations of the organization. This role proactively secures Microsoft 365 enterprise environments. Responsibilities include responding to threats, implementing, managing and monitoring security and compliance solutions for the Microsoft 365 environment. They respond to incidents, investigations and enforcement of data governance. The Microsoft 365 Security administrator is familiar with Microsoft 365 workloads and hybrid environments. This role has strong skills and experience with identity protection, information protection, threat protection, security management and data governance.

Prerequisites
- Basic conceptual understanding of Microsoft Azure.
- Experience with Windows 10 devices.
- Experience with Office 365.
- Basic understanding of authorization and authentication.
- Basic understanding of computer networks.
- Working knowledge of managing mobile devices.

What You’ll Learn
- Administer user and group access in Microsoft 365.
- Explain and manage Azure Identity Protection.
- Plan and implement Azure AD Connect.
- Manage synchronized user identities.
- Explain and use conditional access.
- Describe cyber-attack threat vectors.
- Explain security solutions for Microsoft 365.
- Use Microsoft Secure Score to evaluate and improve your security posture.
- Configure various advanced threat protection services for Microsoft 365.
- Plan for and deploy secure mobile devices.
- Implement information rights management.
- Secure messages in Office 365.
- Configure Data Loss Prevention policies.
- Deploy and manage Cloud App Security.
- Implement Windows information protection for devices.
- Plan and deploy a data archiving and retention system.
- Create and manage an eDiscovery investigation.
- Manage GDPR data subject requests.
- Explain and use sensitivity labels.

Microsoft 365 Certified: Teams Administrator Associate
Managing Microsoft Teams - MS-700T00-AC

Duration: 4 Day Training

Course Description
In this course, you will learn about various Teams management tools, security and compliance feature for Teams, network requirement for Teams deployment as well as different Teams settings and policies for managing collaboration and communication experience in Teams. You will learn about Teams architecture. Specifically, you will learn about the integration between Microsoft Teams and various workloads and services in Microsoft 365. You will learn about security and compliance features for Teams, including conditional access, MFA, Threat, alerts, DLP policies, eDiscovery, and information barrier policies. You will also learn about preparing the environment for a Microsoft Teams deployment, including upgrading from Skype for Business to Microsoft Teams, network settings, and managing Microsoft Teams endpoints. Lastly, you will learn about how to create and manage teams, manage membership, including internal and external users. You will further learn about different settings and policies to manage collaboration and communication experiences in Microsoft Teams.

Audience
Students in this course are interested in Microsoft Teams or in passing the Microsoft Teams Administrator Associate certification exam. A Microsoft Teams administrator plans, deploys, configures, and manages Microsoft Teams to focus on efficient and effective collaboration and communication in a Microsoft 365 environment. A Microsoft Teams administrator must be able to plan, deploy, and manage teams, chat, apps, channels, meetings, audio/video conferencing, live events, calling, and Teams certified devices. A Microsoft Teams administrator has experience integrating Microsoft Teams with SharePoint, OneDrive, Exchange, Microsoft 365 Groups, and other Microsoft, third-party, and custom apps. A Microsoft Teams administrator understands and collaborates with other workloads and roles, such as Network, Voice, Identity, Access, Devices, Licensing, Security, Compliance, Information management, and User Adoption.

Prerequisites
- A proficient understanding of basic functional experience with Microsoft 365 services.
- A proficient understanding of general IT practices, including using PowerShell.
What You'll Learn

- What is Microsoft Teams and how the components work together
- How to implement Governance, Security and Compliance for Microsoft Teams
- How to prepare an organization's environment for a Microsoft Teams deployment
- How to deploy and manage teams
- How to manage collaboration and communication experiences in Microsoft Teams
- Techniques to manage and troubleshoot communication in Microsoft Teams

Microsoft Certified: Azure Fundamentals
Microsoft Azure Fundamentals (2 Day) - AZ-900T00-AC

Duration: 2 Day Training

Course Description
This two-day course will provide foundational level knowledge on core Azure concepts; core Azure services; core solutions and management tools; general security and network security, governance, privacy, and compliance features; Azure cost management and service level agreements. Note: This course provides an Azure pass and time for students to participate in hands-on labs.

Audience
This course is suitable for IT personnel who are just beginning to work with Azure. This audience wants to learn about our offerings and get hands-on experience with the product. This course primarily uses the Azure portal to create services and does not require scripting skills. Students in this course will gain confidence to take other role-based courses and certifications, such as Azure Administrator. This course provides an Azure pass and optional lab environment. This course combines lectures, demonstrations, and hands-on labs. This course will also help prepare someone for the AZ-900 exam.

Prerequisites
There are no prerequisites for taking this course. Familiarity with cloud computing is helpful but isn't necessary.

What You'll Learn

- Discuss the basics of cloud computing and Azure, and how to get started with Azure's subscriptions and accounts.
- Describe the advantages of using cloud computing services, learning to differentiate between the categories and types of cloud computing, and how to examine the various concepts, resources, and terminology that are necessary to work with Azure architecture.
- Outline the core services available with Microsoft Azure.
- Discuss the core solutions that encompass a wide array of tools and services from Microsoft Azure.
● Describe the general security and network security features, and how you can use the various Azure services to help ensure that your cloud resources are safe, secure, and trusted.
● Discuss the identity, governance, privacy, and compliance features, and how Azure can help you secure access to cloud resources, what it means to build a cloud governance strategy, and how Azure adheres to common regulatory and compliance standards.
● Discuss the factors that influence cost, tools you can use to help estimate and manage your cloud spend, and how Azure’s service-level agreements (SLAs) can impact your application design decisions.

Microsoft Certified: Azure AI Fundamentals
Microsoft Azure AI Fundamentals - AI-900T00-AC

**Duration:** 1 Day Training

**Course Description**
This course introduces fundamentals concepts related to artificial intelligence (AI), and the services in Microsoft Azure that can be used to create AI solutions. The course is not designed to teach students to become professional data scientists or software developers, but rather to build awareness of common AI workloads and the ability to identify Azure services to support them. The course is designed as a blended learning experience that combines instructor-led training with online materials on the Microsoft Learn platform (https://azure.com/learn). The hands-on exercises in the course are based on Learn modules, and students are encouraged to use the content on Learn as reference materials to reinforce what they learn in the class and to explore topics in more depth.

**Audience**
The Azure AI Fundamentals course is designed for anyone interested in learning about the types of solution artificial intelligence (AI) makes possible, and the services on Microsoft Azure that you can use to create them. You don't need to have any experience of using Microsoft Azure before taking this course, but a basic level of familiarity with computer technology and the Internet is assumed. Some of the concepts covered in the course require a basic understanding of mathematics, such as the ability to interpret charts. The course includes hands-on activities that involve working with data and running code, so a knowledge of fundamental programming principles will be helpful.

**Prerequisites**
Prerequisite certification is not required before taking this course. Successful Azure AI Fundamental students start with some basic awareness of computing and internet concepts, and an interest in using Azure AI services.

**Specifically:**
- Experience using computers and the internet.
- Interest in use cases for AI applications and machine learning models.
- A willingness to learn through hands-on exploration.
What You'll Learn

- Describe Artificial Intelligence workloads and considerations
- Describe fundamental principles of machine learning on Azure
- Describe features of computer vision workloads on Azure
- Describe features of Natural Language Processing (NLP) workloads on Azure

Microsoft Certified: Azure Data Engineer Associate
Data Engineering on Microsoft Azure - DP-203T00-AC

Duration: 4 Day Training

Course Description
In this course, the student will learn about the data engineering as it pertains to working with batch and real-time analytical solutions using Azure data platform technologies. Students will begin by understanding the core compute and storage technologies that are used to build an analytical solution. The students will learn how to interactively explore data stored in files in a data lake. They will learn the various ingestion techniques that can be used to load data using the Apache Spark capability found in Azure Synapse Analytics or Azure Databricks, or how to ingest using Azure Data Factory or Azure Synapse pipelines. The students will also learn the various ways they can transform the data using the same technologies that is used to ingest data. They will understand the importance of implementing security to ensure that the data is protected at rest or in transit. The student will then show how to create a real-time analytical system to create real-time analytical solutions.

Audience
The primary audience for this course is data professionals, data architects, and business intelligence professionals who want to learn about data engineering and building analytical solutions using data platform technologies that exist on Microsoft Azure. The secondary audience for this course data analysts and data scientists who work with analytical solutions built on Microsoft Azure.

Prerequisites
Successful students start this course with knowledge of cloud computing and core data concepts and professional experience with data solutions. Specifically completing:

- AZ-900 - Azure Fundamentals
- DP-900 - Microsoft Azure Data Fundamentals

What You'll Learn

- Explore compute and storage options for data engineering workloads in Azure
- Run interactive queries using serverless SQL pools
- Perform data Exploration and Transformation in Azure Databricks
Microsoft Certified: Azure Data Fundamentals

Microsoft Azure Data Fundamentals - DP-900T00-AC

Duration: 1 Day Training

Course Description
In this course, students will gain foundational knowledge of core data concepts and related Microsoft Azure data services. Students will learn about core data concepts such as relational, non-relational, big data, and analytics, and build their foundational knowledge of cloud data services within Microsoft Azure. Students will explore fundamental relational data concepts and relational database services in Azure. They will explore Azure storage for non-relational data and the fundamentals of Azure Cosmos DB. Students will learn about modern data warehousing, real-time analytics, and data visualization.

Audience
The audience for this course is individuals who want to learn the fundamentals of database concepts in a cloud environment, get basic skilling in cloud data services, and build their foundational knowledge of cloud data services within Microsoft Azure.

Prerequisites
Prerequisite certification is not required before taking this course. Successful Azure Data Fundamentals students start with some basic awareness of computing and Internet concepts, and an interest in extracting insights from data.

Specifically:

- Experience using a web browser, such as Microsoft Edge.
- Familiarity with basic data-related concepts, such as working with tables of data in a spreadsheet and visualizing data using charts.
- A willingness to learn through hands-on exploration.

What You'll Learn

- Describe core data concepts
- Identify considerations for relational data on Azure
- Describe considerations for working with non-relational data on Azure
- Describe an analytics workload on Azure
Microsoft Certified: Azure Data Scientist Associate  
Designing and Implementing a Data Science Solution on Azure - DP-100T01-AC

Duration: 3 Day Training

Course Description
Learn how to operate machine learning solutions at cloud scale using Azure Machine Learning. This course teaches you to leverage your existing knowledge of Python and machine learning to manage data ingestion and preparation, model training and deployment, and machine learning solution monitoring in Microsoft Azure.

Audience
This course is designed for data scientists with existing knowledge of Python and machine learning frameworks like Scikit-Learn, PyTorch, and Tensorflow, who want to build and operate machine learning solutions in the cloud.

Prerequisites
Successful Azure Data Scientists start this role with a fundamental knowledge of cloud computing concepts, and experience in general data science and machine learning tools and techniques.

Specifically:

- Creating cloud resources in Microsoft Azure.
- Using Python to explore and visualize data.
- Working with containers

To gain these prerequisite skills, take the following free online training before attending the course:

- Explore Microsoft cloud concepts.
- Create machine learning models.
- Administer containers in Azure

If you are completely new to data science and machine learning, please complete Microsoft Azure AI Fundamentals first.

What You'll Learn

- Manage Azure resources for machine learning
- Run experiments and train models
- Deploy and operationalize machine learning solutions
- Implement responsible machine learning
## Microsoft Excel Level 1 (EXCL1)

*Duration: 1 Day Training*

### Course Description
In this course students will be introduced to the different features within Microsoft Excel. This course will teach you the different features in the program, the basics of formatting and editing, the basics of formulas, and how to print in Excel.

### Audience
People who work with data and those who would like to advance their Microsoft Excel skillset

### Prerequisites
- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment

### What You'll Learn
- Modify a worksheet
- Format a worksheet
- Perform calculations
- Create basic charts using data
- Print workbook contents
- Refine the page layout
- Apply print options
- Customize the excel environment

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## Microsoft Excel Level 2 (EXCL2)

*Duration: 1 Day Training*

### Course Description
In this course students will be introduced to more advanced features within Microsoft Excel. This course will teach you how to use formulas and advanced functions, create and format tables, utilize graphics, sort and filter, and protect a workbook.

### Audience
People who work with data and those who would like to advance their Microsoft Excel skillset

### Prerequisites
- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment
Basic experience with Excel or completion of Microsoft Excel Level 1

What You'll Learn

- Apply range names
- Use specialized functions
- Use text, logical, lookup, data and financial functions
- Create and modify tables
- Sort and filter data
- Create charts
- Modify and format charts
- Create a trendline
- Create advanced charts

Microsoft Excel Level 3 (EXCL3)

Duration: 1 Day Training

Course Description
In this course students will learn to be able to utilize, keep and maintain workbooks for all manner of purposes. This course will teach you how to use perform advanced data analysis, collaborate with other users, and automate workbook functionality.

Audience
People who work with data and those who would like to advance their Microsoft Excel skillset

Prerequisites

- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment
- Experience with Excel or completion of Microsoft Excel Level 1&2

What You'll Learn

- Customize workbooks
- Manage themes
- Create and use templates
- Protect files
- Prepare a workbook for multiple audiences
- Trace cells
- Troubleshoot data and formula errors
- Consolidate data
- Link cells in different workbooks
- Merge workbooks
- Export data
- Create web queries
- Create PivotTables
- Use slicers to filter data
- Create and edit macros
- Use conditional formatting
- Add data validation criteria

Microsoft PowerPoint Level 1 (PPT1)

Duration: 1 Day Training

Course Description
In this course students will use PowerPoint to create dynamic and engaging multimedia presentations. The student will learn how to utilize the vast array of features and functionality contained within PowerPoint, organize their content, and deliver it seamlessly.

Audience
People who give presentations regularly or those who would like to advance their PowerPoint skillset

Prerequisites
- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment

What You’ll Learn
- View and navigate a presentation
- Create and save a presentation
- Edit and format text
- Insert shapes and images
- Create and format tables
- Create and format charts
- Review, print, and deliver your presentation

Microsoft PowerPoint Level 2 (PPT2)

Duration: 1 Day Training

Course Description
In this course students will use PowerPoint to customize and enhance dynamic and engaging multimedia presentations. The student will learn how to modify the PowerPoint environment, customize a slide show, collaborate on a presentation, incorporate media and animations, and customize design.
Audience
People who give presentations regularly or those who would like to advance their PowerPoint skillset.

Prerequisites
- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment
- Some basic experience using PowerPoint or completion of PowerPoint Level 1

What You'll Learn
- Customize the PowerPoint user interface and options
- Add headers and footers
- Modify slide layouts, slide masters, notes masters, and handout masters
- Apply transitions between slides
- Store and share presentations online
- Annotate and review a presentation

Microsoft PowerPoint Level 3 (PPT3)

Duration: 1 Day Training

Course Description
In this course students will use PowerPoint to further customize and enhance dynamic and engaging multimedia presentations. The student will learn how to add SmartArt and mathematical equations to a presentation, incorporate media and animations, enhance the presentation with high-impact visuals and animations, and how to secure and distribute a presentation.

Audience
People who give presentations regularly or those who would like to advance their PowerPoint skillset

Prerequisites
- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment
- Some moderate experience using PowerPoint or completion of PowerPoint Level 1 & 2

What You'll Learn
- Create and modify SmartArt
- Write math equations
- Edit, format, arrange and animate objects within a presentation
- Add audio and video to a presentation
Microsoft Project Level 1 (PRO1)

Duration: 1 Day Training

Course Description
In this course students will use Microsoft Project to create a comprehensive project plan. This course will give you the knowledge and skills to draft a project plan with Microsoft Project and share it with others for review.

Audience
- Project managers
- People who would like to advance their Microsoft Project skillset

Prerequisites
- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment
- A general understanding of project management principles
- Experience with Microsoft Office products

What You'll Learn
- Navigate the Microsoft Project desktop environment
- Create a project plan file and modify the options
- Assign a project calendar
- Create a Work Breakdown Structure (WBS)
- Define task relationships and schedule tasks
- Add tasks to a project plan and enter task duration estimates
- Add resources to a project and enter resource costs
- Create a resource calendar
- Assign resources to tasks and resolve resource conflicts
- Set a baseline and optimize the project plan
- Share the project plan

Microsoft Project Level 2 (PRO2)

Duration: 1 Day Training
**Course Description**

In this course students will use Microsoft Project to update and manage a comprehensive project plan. This course will give you the knowledge and skills to complete a project on time, within budget, and according to scope with Microsoft Project.

**Audience**

- Project managers
- People who would like to advance their Microsoft Project skillset

**Prerequisites**

- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment
- A general understanding of project management principles
- Experience with Microsoft Office products
- Some basic experience using Microsoft Project or completion of Microsoft Project Level 1

**What You'll Learn**

- Enter task progress and overtime work
- Edit tasks
- Update cost rate tables and the baseline
- Add custom fields
- Use view commands
- Create custom views
- Format and share the timeline view

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**Microsoft Project Level 3 (PR03)**

*Duration: 1 Day Training*

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**Course Description**

In this course students will use Microsoft Project to report on a comprehensive project plan and seamlessly work between multiple projects. This course will give you the knowledge and skills to complete multiple projects on time, within budget, and according to scope with Microsoft Project.

**Audience**

- Project managers
- People who would like to advance their Microsoft Project skillset

**Prerequisites**

- Basic knowledge of personal computers
Some experience in the Microsoft Windows environment
A general understanding of project management principles
Experience with Microsoft Office products
Experience using Microsoft Project or completion of Microsoft Project Level 1&2

What You'll Learn

View built-in reports
Create custom reports
Create visual reports
Reusing project plan information
Create project plan templates
Share project plan elements between plans
Share resources between projects
Link project plans to each other

Microsoft SharePoint Level 1 (SHARE1)

Duration: 1 Day Training

Course Description
In this course students will be introduced to SharePoint Online and the tools and components required to manage the Office 365 environment. This course will give you a foundation with SharePoint Online, teach you how to create site collections, and enable you to manage user profiles.

Audience
People who need to setup, configure, and manage SharePoint Online as part of their administration of Office365

Prerequisites

Basic knowledge of personal computers
Some experience in the Microsoft Windows environment
Experience with Microsoft Office products

What You'll Learn

Describe the key components of SharePoint Online
Navigate SharePoint admin centers and Office 365
Understand identity management
Understand hybrid scenarios
Learn how to manage the environment in PowerShell
Understand, manage, and delegate site collections
Configure external sharing
Delete, restore, and manage site collections
Understand profiles in SharePoint Online
Create a custom property mapped to a metadata term
• Define profile policies and security controls
• Create and manage audiences

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Microsoft SharePoint Level 2 (SHARE2)

Duration: 1 Day Training

Course Description
In this course students will be introduced to tools and features within SharePoint Online. This course will teach you to work with data connections, manage the term store, and configure searches in SharePoint Online.

Audience
People who need to setup, configure, and manage SharePoint Online as part of their administration of Office365

Prerequisites
• Basic knowledge of personal computers
• Some experience in the Microsoft Windows environment
• Experience with Microsoft Office products
• Experience with SharePoint or completion of Microsoft SharePoint Level 1

What You’ll Learn
• Describe the key components of data connections SharePoint Online
• Learn about PowerApps, Flow, and Power Bi
• Learn an overview of the business connectivity services
• Understand the architecture of BCS and the Secure Store Service
• Learn how to build XML definition files
• Configure single sign on credentials
• Build external content types and create external lists
• Understand the term store in SharePoint data and lifecycle management
• Use terms to enable better search and findability
• Build term stores and terms
• Manage terms through synonyms and pinning
• Create terms via PowerShell and add terms to content
• Delegate administration rights
• Understand the search service
• Configure managed properties and extend the search schema
• Define authoritative pages
• Understand, configure, and apply result sources to search queries
• Understand query rules
• Remove search results from the index
• Import and export search configurations
Microsoft SharePoint Level 3 (SHARE3)

Duration: 1 Day Training

Course Description
In this course students will be introduced to tools and features within SharePoint Online. This course will teach you to configure apps, utilize the Enterprise Content Management system (ECM), and manage options in SharePoint Online.

Audience
People who need to setup, configure, and manage SharePoint Online as part of their administration of Office365

Prerequisites
- Basic knowledge of personal computers
- Some experience in the Microsoft Windows environment
- Experience with Microsoft Office products
- Experience with SharePoint or completion of Microsoft SharePoint Level 1&2

What You'll Learn
- Understand how apps work in SharePoint Online
- Learn the difference between store apps and catalog apps
- Build out the app catalog site collection and deploy apps to it
- Add apps to SharePoint sites
- Deploy an Azure app
- Configure access to the online store marketplace
- Monitor and manage app usage
- Understand the components of ECM
- Configure in-place records management
- Build a records center and send data to it
- Discover the security and compliance center
- Build eDiscovery cases
- Understand Data Loss Prevention (DLP)
- Build DLP policies
- Configure feature options for OneDrive
- Understand and configure Information Rights Management (IRM)
- Enable IRM in SharePoint libraries
- Apply IRM policies to items in SharePoint
- Define site classification options
- Understand and enable early release features
- Understand and manage access control options
Red Hat System Administration I

*Duration: 5 Days (10 students minimum / 20 students maximum)*

**Course Description**
Red Hat System Administration I equips you with Linux® administration "survival skills" by focusing on foundational Linux concepts and core tasks. You will learn how to apply command-line concepts and enterprise-level tools, starting you on your journey toward becoming a full-time Linux system administrator.

Included: Courseware and labs

**Audience**
IT professionals across a broad range of disciplines who need to perform essential Linux administration tasks including installation, establishing network connectivity, managing physical storage, and basic security administration. This course is designed for IT professionals without previous Linux administration experience.

**Prerequisites**
This course is designed for IT professionals without previous Linux administration experience.

**What You'll Learn**

- Access & manage files from the command line
- Create, view, and edit text files
- Manage local Linux users and groups
- Monitor and manage Linux processes
- Control services and daemons
- Control access to files with Linux file-system permissions
- Analyze and store log files
- Configure and secure the OpenSSH service
- Install and update software packages
- Access Linux file systems
- Manage Linux networking
VMware Certified Associate – Digital Business Transformation

*Duration: 5 Day Training (Client Location)*

**Course Description**
This five-day course validates your understanding of virtualization concepts and how they drive an enterprise’s digital agenda. It proves that you are familiar with the VMware products and technologies that support VMware Cloud Foundation and Cross-Cloud Architecture solutions including vSphere, vSAN, NSX, and the vRealize Suite.

**Audience**
Those needing to understand VMware products, technologies, and solutions within the VMware Cloud Foundation and Cross-Cloud Architecture.

**Prerequisites**
Before attending this course, students must:
Understand industry recognized virtualization concepts and is aware of VMware products, underlying technologies, and solutions.

**What You’ll Learn**
After completing this course, students will be able to:

- Define and describe the VMware Cross-Cloud Architecture
- Define and describe vSphere solutions
- Define and describe vSAN solutions
- Define and describe the NSX solution
- Define and describe vRealize Suite solutions
- Define and describe Horizon Suite solutions
- Recommend the right products for a solution that meets customer requirements

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VMware vSphere: Install, Configure, Manage

*Duration: 5 Days (10 students minimum / 20 students Maximum)*

**Course Description**
This five-day course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere® 7, which includes VMware ESXi™ 7 and VMware vCenter Server® 7. This course prepares you to administer a vSphere infrastructure for an organization of any size.
This course is the foundation for most of the other VMware technologies in the software-defined data center.

Included: Courseware and labs

**Audience**
System administrators, systems engineers, technicians who are responsible for server virtualization will benefit from this course.

**Prerequisites**
System administration experience on Microsoft Windows or Linux operating systems

**What You'll Learn**

- Describe the software-defined data center (SDDC)
- Explain the vSphere components and their function in the infrastructure
- Install and configure VMware 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 Update Manager to apply patches and perform upgrades to ESXi hosts and virtual machines