

## MICROSOFT INFRASTRUCTURE MANAGEMENT TRACT (MTA, MCSA, MCSE)



The Microsoft Infrastructure Management Tract programme is for those intending to build a career in desktop or server infrastructure. The recommended entry level path for students is Microsoft Technology Associate (MTA) skills development. After students are well versed in the basics, they can begin preparing for the Microsoft Certified Solutions Associate (MCSA) certification and the Microsoft Certified Solutions Expert (MCSE) certification. Business students can enhance their business skills and differentiate themselves by validating their technology literacy with MTA certification.

The Microsoft Infrastructure Management Tract Programme consists of the following study path:



**Microsoft Technology Associate (MTA):** This is an introductory Microsoft certification for individuals considering a career in technology. MTA certification addresses a wide spectrum of fundamental technical concepts, assesses and validates your core technical knowledge, and enhances your technical credibility. The MTA IT Infrastructure track, are for those intending to build a career in desktop or server infrastructure or private cloud computing.

**Microsoft Certified Solutions Associate (MCSA) Windows Server 2012:** Prove your mastery of the primary set of Windows Server 2012 skills required to reduce IT costs and deliver more business value. Get hands-on instruction and practice installing and configuring Windows Server 2012, including Windows Server 2012 R2. The three courses collectively cover implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server 2012 environment. Although there is some cross-over of skills and tasks across these courses, this course focuses on the initial implementation and configuration of core services, such as Networking, Storage, Active Directory Domain Services (AD DS), Group Policy, File and Print Services, and Hyper-V.

**Microsoft Certified Solutions Expert (MCSE):** Server Infrastructure certification validates that you have the skills needed to run a highly efficient and modern data centre, with expertise in identity management, systems management, virtualisation, storage and networking.

**Microsoft Certified Solutions Expert (MCSE):** Private Cloud certification enables you to prove your expertise in managing and implementing Microsoft private cloud computing technologies. With Windows Server and System Center, you will build your Microsoft private cloud solution to optimize

IT service delivery and gain the automation and flexibility you need for your IT infrastructure, now and in the future.

## CAREER OPORTUNITIES

This is for IT Professionals intending on building a career as a:

- Computer support specialist
- Information security analyst
- Server administrator
- Systems programmer
- Network manager

## COURSE DURATION

Based on contact hours as determined by the accreditation body and based on HC Varsity course progression structure and schedule, to complete the MTA – IT Infrastructure track, the MCSA – Windows Server 2012 and the MCSE –Server Infrastructure or the MCSE – Private Cloud will take:

- Full Time – approximately 2 and a half years
- Part Time – approximately 3 years
- Distance Learning – approximately 3 years

## ENTRANCE REQUIREMENTS

- MTA: Individuals must have basic computer skills.
- MCSA: It is recommended that individuals have successfully completed the Microsoft Technology Associate (MTA) – IT Infrastructure track or the CompTIA A+ and CompTIA Network + Certifications
- MCSE: It is a pre-requisite that individuals have successfully completed the Microsoft Certified Solutions Associate (MCSA) - Windows Server 2012
- Access to a computer

## COURSE CONTENT

MICROSOFT TECHNOLOGY ASSOCIATE
360 – MOBILITY AND DEVICE
<ul style="list-style-type: none"><li>• Understand device configurations</li><li>• Understand data access and management</li><li>• Understand device security</li><li>• Understand cloud services</li><li>• Understand enterprise mobility</li></ul>
369 – CLOUD FUNDAMENTALS
<ul style="list-style-type: none"><li>• Understand the cloud</li><li>• Enable Microsoft cloud services</li><li>• Administer Office 365 and Microsoft Intune</li></ul>

<ul style="list-style-type: none"> <li>• Use and configure Microsoft cloud services</li> <li>• Support cloud users</li> </ul>
<b>366 – NETWORKING FUNDAMENTALS</b>
<ul style="list-style-type: none"> <li>• Understanding Local Area Networking</li> <li>• Defining Networks with OSI Model</li> <li>• Understanding Wired and Wireless Networks</li> <li>• Understanding Internet Protocol</li> <li>• Implementing TCP/IP in the command line</li> <li>• Working with network services</li> <li>• Understanding Wide Area Networks</li> <li>• Defining Network Infrastructures and Network Security</li> </ul>
<b>367 – SECURITY FUNDAMENTALS</b>
<ul style="list-style-type: none"> <li>• Understanding security layers</li> <li>• Authentication, authorisation, and accounting</li> <li>• Understanding security policies</li> <li>• Understanding network security</li> <li>• Protecting the server and client</li> </ul>
<b>MICROSOFT CERTIFIED SOLUTIONS ASSOCIATE (MCSA) - WINDOWS SERVER 2012</b>
<b>410 – INSTALLING AND CONFIGURING WINDOWS SERVER 2012</b>
<ul style="list-style-type: none"> <li>• Deploying and managing windows server 2012</li> <li>• Introduction to active directory domain services</li> <li>• Managing active directory domain services objects</li> <li>• Automating active directory domain services administration</li> <li>• Implementing Ipv4</li> <li>• Implementing dynamic host configuration protocol</li> <li>• Implementing DNS</li> <li>• Implementing Ipv6</li> <li>• Implementing local storage</li> <li>• Implementing file print services</li> <li>• Implementing group policy</li> <li>• Securing windows servers using group policy objects</li> <li>• Implementing server virtualisation with hyper-v</li> </ul>
<b>411 – ADMINISTIRING THE WINDOWS SERVER 2012</b>
<ul style="list-style-type: none"> <li>• Configuring and troubleshooting domain name system</li> <li>• Maintaining active domain services</li> <li>• Managing user and service accounts</li> <li>• Implementing a group policy</li> <li>• Managing user desktops with group policy</li> <li>• Installing, configuring and troubleshooting the network policy server role</li> <li>• Implementing network access protection</li> <li>• Implementing remote access</li> <li>• Optimising file services</li> <li>• Configuring encryption and advanced auditing</li> <li>• Deploying and maintaining server images</li> <li>• Implementing update management</li> <li>• Monitoring windows server 2012</li> </ul>
<b>412 – CONFIGURING ADVANCED WINDOWS SERVER 2012 SERVICES</b>
<ul style="list-style-type: none"> <li>• Implementing advanced network services</li> </ul>

- Implementing advanced file services
- Implementing dynamic access control
- Implementing distributed active directory domain services deployments
- Implementing active directory domain services sites and replication
- Implementing AD CS
- Implementing active directory rights management services
- Implementing and administering AD FS
- Implementing network load balancing
- Implementing failover clustering
- Implementing failover clustering with hyper-v
- Implementing business continuity and disaster recovery

### **MICROSOFT CERTIFIED SOLUTIONS EXPERT - (MCSE) SERVER INFRASTRUCTURE**

#### **413 - DESIGNING AND IMPLEMENTING A SERVER INFRASTRUCTURE**

- Planning Server Upgrade and Migration
- Planning and Implementing a Server Deployment Strategy
- Planning and Deploying Servers Using Virtual Machine Manager
- Designing and Maintaining an IP Configuration and Address Management Solution
- Designing and Implementing Name Resolution
- Designing and Implementing an Active Directory Domain Services Forest and Domain Infrastructure
- Designing and Implementing an AD DS Organizational Unit Infrastructure
- Designing and Implementing a Group Policy Object Strategy
- Designing and Implementing an AD DS Physical Topology
- Planning and Implementing Storage and File Services
- Designing and Implementing Network Protection
- Designing and Implementing Remote Access Services

#### **414 - Implementing an Advanced Server Infrastructure**

- Overview of Management in an Enterprise Data Centre
- Planning and Implementing a Server Virtualization Strategy
- Planning and Implementing Networks and Storage for Virtualization
- Planning and Deploying Virtual Machines
- Planning and Implementing a Virtualization Administration Solution
- Planning and Implementing a Server Monitoring Strategy
- Planning and Implementing High Availability for File Services and Applications
- Planning and Implementing a High Availability Infrastructure Using Failover Clustering
- Planning and Implementing a Business Continuity Strategy
- Planning and Implementing an Public Key Infrastructure
- Planning and Implementing an Identity Federation Infrastructure
- Planning and Implementing Data Access for Users and Devices
- Planning and Implementing an Information Rights Management Infrastructure

### **MICROSOFT CERTIFIED SOLUTIONS EXPERT - (MCSE) PRIVATE CLOUD**

#### **246 - Monitoring and Operating a Private Cloud with System Centre 2012**

- Introduction to the Cloud Model
- Configuring a Private Cloud Environment
- Deploying Cloud Services
- Monitoring Cloud Based Applications
- Configuring Application Performance Monitoring
- Operating and Extending Service Management in the Private Cloud

- Automating Incident Creation, Remediation, and Change Requests
- Problem Management in the Private Cloud
- Operating a Self Service, Multi-Tenant Cloud with Windows Azure Pack
- High Availability, Protection, and Recovery for the Cloud
- Optimizing Your Cloud Infrastructure
- Configuring SLAs, Dashboards, and Widgets

#### 247 - Configuring and Deploying a Private Cloud with System Centre 2012

- Planning for the Cloud
- Configuring and Deploying the Private Cloud with Microsoft System Centre 2012 R2 Virtual Machine Manager
- Extending and Maintaining Cloud Infrastructure
- Configuring Application Delivery
- Creating the Private Cloud Building Blocks
- Deploying and Configuring Access to a Private Cloud
- Monitoring Cloud Infrastructure
- Extending and Customizing Monitoring of the Cloud Infrastructure
- Implementing Service Management for the Cloud
- Configuring High Availability, Disaster Recovery and Protection for a Cloud
- Automating and Standardizing a Cloud
- Configuring a Self-Service Multi-Tenant Cloud with the Windows Azure Pack

## ASSESSMENTS

This internationally recognised course is assessed by CERTIPORT and Pearson VUE through HC Varsity which is an accredited testing Centre. HC Varsity can also offer practice tests to prepare the learner for the final exam.

## CERTIFICATION

On successful completion of the international online examinations you will be awarded the following Certification:

- Microsoft Technology Associate (MTA) – IT Infrastructure
- Microsoft Certified Solutions Associate (MCSA) – Windows Server 2012
- Microsoft Certified Solutions Expert (MCSE) – Server Infrastructure
- Microsoft Certified Solutions Expert (MCSE) – Private Cloud

This MCSE certification requires you to show continued ability to perform in your chosen solution area by completing a recertification exam every three years.

## FURTHER STUDIES

After successful completion of the course, there are several career paths that you may specialise in. Please contact HC Varsity for further information.