

# Certificate Course in Networking (A+, N+, MCSE 2012, CCNA Exposure to ITIL)

## Course Objective

This course aims at preparing the participants for Installation, Maintenance and Troubleshooting of the Networks using Microsoft (Servers, Client, and Security) and Cisco Products (Routers and Switches). The Hardware and Network Essential Module will give the Participants good foundation to start with

## Course Outcomes

On completion of this course the participants will be able to:

- 1. Install, Troubleshoot and Maintain Server and PC Hardware and Peripherals
- 2. Understand the network topology, Devices and protocols, configure and Maintaining of Ipv4,Ipv6 based networks
- 3. Install, Configure, Maintain, Troubleshoot, Upgrading of router & switches devices
- 4. Deploy and Manage Windows Server 2012.
- 5. Implementing of AD DS services, objects & Automate Administration.
- 6. Implementing of DHCP,DNS,Local Storage, files & print services
- 7. Secure Windows servers by using Group Policy Objects (GPOs).
- 8. Install, configure and troubleshoot the Network Policy Server (NPS) role.
- 9. Install, configure and troubleshoot AD CS, AD RMS, iSCSI, Branch Cache deployment , Network Load Balancing, Failover clustering
- 10. Understand appropriate command-line, PowerShell and applicable management shell commands
- 11. understands How a network works, selecting the appropriate administrative tasks required for a WLAN
- 12. Configuring, verifying and troubleshooting basic switch & router operation on Cisco devices
- 13. Implementing an IP addressing scheme and IP services to meet network requirements
- 14. Identifying security threats to a network
- 15. Identifying methods to mitigate security threats

## Target Audience

Officials from IT Departments of all Ministries, Govt. Departments, Banks, Telecom Companies, Universities, NGOs, Colleges, ICT Organizations etc.

## Teaching Methodology

This course is based on theoretical lessons and delivered in a Classroom atmosphere.

## Prerequisites

Graduates / Engineers / Diploma Holders with prior Knowledge in Computer Networking

## Duration : 12 Weeks (5 days a week , 6 - 8 hours per day)

**Batch 1** – 17-07-2017 to 07-10-2017

**Batch 2** – 20-11-2017 to 10-02-2018

**Batch 3** – 26-03-2018 to 16-06-2018

## Course Outline

### A+ & N+

- Hardware Basics, PC Functions & Components, Tools and Equipments,
- System Configuration, BIOS, CMOS Settings, Installation, Upgradation & Troubleshooting,
- Power Supplies, Expansion Bus, Hard Drives, Floppy Drives, Printers Motherboard, Safety & Preventive Measures
- Networking Essentials, LAN, WAN, Protocols, ISO Model, IP Addressing, Internet, Intranet, Network Cables etc.,

### Microsoft Certified Solution Expert (MCSE 2012)

- Installing & Configuring Windows Server 2012 (70-410)
- Administering Windows Server 2012 (70-411)
- Configuring Advanced Windows Server 2012 Services (70-412)
- Designing & Implementing a Server infrastructure (70-413)
- Implementing an advanced server infrastructure (70-647)

### Exposure to ITIL Standards

### Cisco Certified Network Associate (CCNA) Track

- Concept of internetworking, internet protocols
- IP addressing, subnetting, CIDR, VLSM, Cisco IOS, IP routing, RIP, EIGRP, OSPF.
- Layer 2 switching VLAN, STP, VTP, Managing traffic with access control list.
- Wide Area Networking Protocols.
- Identify enhanced switching technologies (RSTP, PVSTP, Etherchannels)
- IP addressing (IPv4 / IPv6) & configuration
- Global unicast, Multicast, Link local, Unique local, eui 64, Auto configuration, Recognize high availability (FHRP, VRRP, HSRP, GLBP)
- Troubleshooting and Concepts of WAN Technologies.

■ **Case Study** : UTL has implemented six state wide area networks & e-governance projects in various states of India. Overview of couple of these complex networks will be given as case studies to have a perfect understanding of the technologies learnt

■ **Industrial Visit / Training**: Participants are taken to State Wide Area Network project implemented by UTL and also to R&D Manufacturing facilities of UTL & its partners