



Institute for Capacity Development (ICD)

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Network Security Administration and Management

Course Objectives:

On Completion of the course, participants should be able to:

- Determine the network needs of an institution and set it up
- Determine hardware needs for a network
- Install a Windows based network
- Connect computers with various platforms to a network
- Evaluate and determine security needs, set up user groups and group policies
- Configure Windows-based network routers
- Install and setup different network servers
- Institute, implement and maintain a secure network

Target Groups

- System administrators
- Network Administrators
- Technical Support Specialists
- Software/Hardware Developers
- Engineers and Office Specialists.
- Network administrators

Course Outline

- General Management Principles and Practises
- Networking Overview
- IP Addressing Basics
- Implementing and Managing WINS
- Securing Network Traffic
- Secure system design, access control, and protection
- Basic web security model
- Digital Rights Management
- Transmission Modes
- Logical Network Classification
- Network Topologies
- Physical Network Classification
- Network Equipments
- Protocol Analysis
- Develop, Maintain and implement IT security
- Control hijacking attacks: exploits and defenses
- Security problems in network protocols: TCP, DNS, SMTP, and routing
- Network defense tools: Firewalls, VPNs, Intrusion Detection, and filters

- Intrusion Detection System (IDS) and Intrusion Prevention Systems (IPS)
- Malware: Computer viruses, Spyware, and key-loggers
- Maintain and implement firewalls
- Monitor and secure network and servers
- Monitor critical system files
- Security Standards
- Hardening Physical Security
- Network Security Threats
- Packet Filtering and Proxy Servers
- Securing Modems
- Troubleshooting Network
- Hardening Routers
- Hardening Operating Systems
- Log Analysis
- Application Security
- Web Security
- E-mail Security
- Authentication: Encryption, Cryptography and Digital Signatures
- Virtual Private Networks
- Wireless Network Security
- Creating Fault Tolerance
- Incident Response
- Disaster Recovery and Planning
- Network Vulnerability Assessment
- Action Planning

Dates: 06th – 17th November 2017

Duration: 2 Weeks

Course Costs: US\$3500

Venue: Pretoria, RSA