



CompTIA Security+ Certification Training

120 hours

Course Overview/Description

This course is designed to provide students with the fundamentals of security, and to help prepare for the CompTIA™ Security+ exam. It covers material related to general security concepts, communications security, infrastructure security, basics of cryptography, and operational/organizational security.

The following topics are covered:

- Hacking, Cracking, and Attacks
- Mitigation Techniques
- Hardening
- Infrastructure Access Points
- Infrastructure Protocols
- Infrastructure Topologies
- Infrastructure Management.

Course Objectives

At the end of this course, students will be able to:

- Demonstrate knowledge of security threats
- Understand communication and infrastructure security
- Understand cryptography, access control and authentication
- Prevent against external attack
- Demonstrate knowledge of operational and organization security

Course Outline

Lesson 1: Hacking, Cracking, and Attacks

- a. Why Security is Necessary
- b. Reconnaissance Techniques
- c. Access Techniques
- d. Denial of Service Attacks

Lesson 2: Mitigation Techniques

- a. Authentication
- b. Authorization
- c. Accounting

Lesson 3: Hardening

- a. NOSOS Hardening
- b. Filters/Firewalls
- c. Intrusion Detection Systems
- d. Organization
- e. Forensics (Awareness, Conceptual Knowledge and Understanding-Know what your role is)

Lesson 4: Infrastructure Access Points

- a. Layer 1 Access Points
- b. Layer 2 Access Points
- c. Layer 3 Access Points
- d. Layer 4 and Above

Lesson 5: Infrastructure Protocols

- a. Remote Access
- b. Internetwork Access

Lesson 6: Infrastructure Topologies

- a. Security Zones
- b. VLANs
- c. Network Address Translation
- d. Tunneling
- e. Key Management/Certification Lifecycle

Lesson 7: Infrastructure Management

- a. Privilege Management
- b. Risk Identification
- c. Education (Training of End Users, Executives, and Human Resources)
- d. Documentation

Prerequisites/Audience

- Thorough Knowledge of TCP/IP
- Network+ certification or equivalent knowledge and experience



PC Requirements/Materials Included

This course is compatible with Windows Vista Operating System.

This course can only be taken using a PC and using current Microsoft operating systems. The course is support on Internet explorer. High speed internet access is advised.

A student guide is provided for ongoing reference.

Instructor Bio

Chris Lobban brings his industry experience with an extensive assortment of hardware and software solutions. Before starting at Academy of Learning he had worked both in a Help Desk environment and as a Quality Assurance Analyst, where he had to deal with a wide array of different hardware requirements, operating systems, and computer programs every day. This broad experience base, added to his formal training as a Computer Networking and Technical Support Specialist from Seneca College, gives him the training and experience needed to provide support to his students. Chris has also certified his experience by earning the CompTIA A+ IT Technician, Network+, Server+ and Security+ credentials, as well as the Microsoft MCSE (Windows Server 2003), MCSA (Windows Server 2003) and MCDST (Windows XP) credentials.