

Course Length: 40 Hrs.

**Course Description:**

Security+™: A CompTIA Certification (Windows Server 2003) is the primary course you will need to take if your job responsibilities include securing network services, network devices, and network traffic. It is also the main course you will take to prepare for the CompTIA Security+ examination (exam number SY0101). In this course, you'll build on your knowledge and professional experience with computer hardware, operating systems, and networks as you acquire the specific skills required to implement basic security services on any type of computer network.

Upon successful completion of this course, students will be able to:

- Identify fundamental concepts of computer security.
- Identify security threats.
- Harden internal systems and services.
- Harden internetwork devices and services.
- Secure network communications.
- Manage public key infrastructure (PKI).

**Instructorled**

**Prerequisites:**

Basic Windows skills and fundamental understanding of computer and networking concepts are required. CompTIA A+ and Network+ certifications, or equivalent knowledge, and six to nine months experience in networking, including experience configuring and managing TCP/IP, are strongly recommended. Students can obtain this level of skill and knowledge by taking all of the following courses:  
 A+ Certification: Core Hardware Third Edition – A  
 CompTIA Certification A+ Certification: Operating Systems Third Edition – A  
 CompTIA Certification  
 Network+ Certification: 4th Edition – A  
 CompTIA Certification

<p><b>Course Outline</b></p> <p><b>Lesson 1: Security Fundamentals</b></p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> <li>• Security Building Blocks</li> <li>• Authentication Methods</li> <li>• Cryptography Fundamentals</li> <li>• Security Policy Fundamentals</li> </ul> <p><b>Lesson 2: Security Threats</b></p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> <li>• Social Engineering</li> <li>• Software-Based Threats</li> <li>• Hardware-Based Threats</li> </ul> <p><b>Lesson 3: Hardening Internal Systems and Services</b></p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> <li>• Harden Operating Systems</li> <li>• Harden Directory Services</li> <li>• Harden DHCP Servers</li> </ul>	<ul style="list-style-type: none"> <li>• Harden File and Print Servers</li> </ul> <p><b>Lesson 4: Hardening Internetwork Devices and Services</b></p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> <li>• Harden Internetwork Connection Devices</li> <li>• Harden DNS and BIND Servers</li> <li>• Harden Web Servers</li> <li>• Harden File Transfer Protocol (FTP) Servers</li> <li>• Harden Network News Transfer Protocol (NNTP) Servers</li> <li>• Harden Email Servers</li> <li>• Harden Conferencing and Messaging Servers</li> </ul> <p><b>Lesson 5: Securing Network Communications</b></p> <p><i>Topics:</i></p> <ul style="list-style-type: none"> <li>• Protect Network Traffic with IP Security (IPSec)</li> <li>• Secure Wireless Traffic</li> <li>• Harden a Web Browser</li> <li>• Secure the Remote Access Channel</li> </ul>
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- Manage certificates.
- Enforce organizational security policies.
- Monitor the security infrastructure.

### **Lesson 6: Managing Public Key Infrastructure (PKI)**

*Topics:*

- Install a Certificate Authority (CA) Hierarchy
- Harden a Certificate Authority
- Back Up a CA
- Restore a CA

### **Lesson 7: Managing Certificates**

*Topics:*

- Enroll Certificates
- Secure Network Traffic by Using Certificates
- Renew Certificates
- Revoke Certificates
- Back Up Certificates and Private Keys
- Restore Certificates and Private Keys

### **Lesson 8: Enforcing Organizational Security Policies**

*Topics:*

- Enforce Corporate Security Policy Compliance
- Enforce Legal Compliance
- Enforce Physical Security Compliance
- Educate Users

### **Lesson 9: Monitoring the Security Infrastructure**

*Topics:*

- Scan for Vulnerabilities
- Monitor for Intruders
- Set Up a Honeypot
- Respond to Security Incidents

### **Appendix A: Mapping Security+ Course Content to the CompTIA Security+ Exam Objectives**

### **Appendix B: Using Security Utilities**