

# **COURSE OUTLINE**

## **CSCO-695**

### **Cisco Secure PIX Firewall Advanced Configuration**

#### **3 Credits**

## **HOWARD COMMUNITY COLLEGE**

### **Description**

This course will teach students to design and implement security solutions that will reduce the risk of revenue loss and vulnerability. Particular emphasis on the following topics: security policy design and management, security technologies, products and solutions, firewall and secure router design, installation, configuration and maintenance, AAA implementation using routers and firewalls. This course will prepare students to take two certifications: Securing Cisco IOS Networks (SECUR), and Cisco Secure PIX Firewall Advanced (CSPFA). This course includes all the objectives of Cisco Fundamentals of Network Security curriculum. These exams will also count toward the CCSP (Cisco Certified Security Professional) certification. Prerequisite: CSCO-272 or CCNA Certification. (2 hours lecture and 3 hours lab)

### **Overall Course Objectives**

Upon completion of this course, the student will be able to:

1. Select appropriate security hardware, software, and configurations based on organizational requirements.
2. Demonstrate advanced PIX Firewall and Cisco router secure installation, configuration, monitoring, troubleshooting, and maintenance.
3. Configure the AAA service on both Cisco routers and PIX Firewalls.
4. Implement VPN client access with Cisco routers and PIX Firewalls.
5. Configure IPSec VPNs on Cisco routers or PIX Firewalls.
6. Develop and manage Security Policies.
7. Demonstrate advanced access control list configuration and troubleshooting.
8. Describe basic and advanced security vulnerabilities and threats.
9. Describe (Explain) security terminology and acronyms.
10. Design secure networks with proper placement of security devices.
11. Configure the PIX Intrusion Detection System.
12. Configure PIX Failover.

### **Major Topics**

- I. Overview of Network Security
- II. Securing the Perimeter Router
- III. ACLs and CBAC
- IV. Router AAA Security
- V. Intrusion Detection
- VI. IP Security
- VII. Easy VPN
- VIII. PIX Security Appliance

- IX. Translations and Connections
- X. Access Control Lists for the PIX Firewall
- XI. AAA on PIX Security Appliance
- XII. PIX IDS
- XIII. PIX Failover and System Maintenance
- XIV. PIX VPN
- XV. PIX Device Manager

### **Cisco Networking Academy Curriculum at HCC**

When a student takes a Cisco course at HCC, that student usually receives more instruction time than they would receive in other formats. Therefore, while taking Cisco Networking courses at HCC, the student may expect not only instruction from Cisco materials but additional academic and practical exercises and course work to better equip the student not only for the corresponding certification exam but for eventual utilization in their professional endeavors.

#### **Course Requirements**

Grading/exams: Grading procedures will be determined by the individual faculty member but will be calculated on the basis of tests, lab reports, quizzes and final exam. This course includes a comprehensive final exam and lab practical.

#### **Other Course Information**

This course is a course in the Computer Support Technology Program. This course is also intended for students who wish to become a Cisco Firewall Specialist (CCSP).