# Security Fundamentals

**Modality: On Demand**

**Duration: 14 Hours**

This course will teach students about identifying security fundamentals and threats, analyzing risk, conducting security assessments, implementing network, operational , host, and software security, managing identity and access, implementing cryptography, addressing security issues, and ensuring business continuity.

## Course Outline:

## Module 1: Identifying Security Fundamentals

- **Lesson A:** Identify Information Security Concepts
- **Lesson B:** Identify Basic Security Controls
- **Lesson C:** Identify Basic Authentication and Authorization Concepts
- **Lesson D:** Identify Basic Cryptography Concepts

## Module 2: Analyzing Risk

- **Lesson A:** Analyze Organizational Risk
- **Lesson B:** Analyze the Business Impact of Risk

## Module 3: Identifying Security Threats

- **Lesson A:** Identify Types of Attackers
- **Lesson B:** Identify Social Engineering Attacks
- **Lesson C:** Identify Malware
- **Lesson D:** Identify Software-Based Threats
- **Lesson E:** Identify Network-Based Threats
- **Lesson F:** Identify Wireless Threats
- **Lesson G:** Identify Physical Threats

## Module 4: Conducting Security Assessments

- **Lesson A:** Identify Vulnerabilities
- **Lesson B:** Assess Vulnerabilities
- **Lesson C:** Implement Penetration Testing

## Module 5: Implementing Host and Software Security

- **Lesson A:** Implement Host Security
- **Lesson B:** Implement Cloud and Virtualization Security
- **Lesson C:** Implement Mobile Device Security

- **Lesson D:** Incorporate Security in the Software Development Lifecycle

## Module 6: Implementing Network Security

- **Lesson A:** Configure Network Security Technologies
- **Lesson B:** Secure Network Design Elements
- **Lesson C:** Implement Secure Networking Protocols and Services
- **Lesson D:** Secure Wireless Traffic

## Module 7: Managing Identity and Access

- **Lesson A:** Implement Identity and Access Management
- **Lesson B:** Configure Directory Services
- **Lesson C:** Configure Access Services
- **Lesson D:** Manage Accounts

## Module 8: Implementing Cryptography

- **Lesson A:** Identify Advanced Cryptography Concepts
- **Lesson B:** Select Cryptographic Algorithms
- **Lesson C:** Configure a Public Key Infrastructure
- **Lesson D:** Enroll Certificates
- **Lesson E:** Back Up and Restore Certificates and Private Keys
- **Lesson F:** Revoke Certificates

## Module 9: Implementing Operational Security

- **Lesson A:** Evaluate Security Frameworks and Guidelines
- **Lesson B:** Incorporate Documentation in Operational Security
- **Lesson C:** Implement Security Strategies
- **Lesson D:** Manage Data Security Processes
- **Lesson E:** Implement Physical Controls

## Module 10: Addressing Security Incidents

- **Lesson A:** Troubleshoot Common Security Issues
- **Lesson B:** Respond to Security Incidents
- **Lesson C:** Investigate Security Incidents

## Module 11: Ensuring Business Continuity

- **Lesson A:** Select Business Continuity and Disaster Recovery Processes
- **Lesson B:** Develop a Business Continuity Plan?