



Cybersecurity Fundamentals

Course Description

The protection of information is a critical function for all enterprises. Cybersecurity is a growing and rapidly changing field that focuses on the protection of information assets that are embedded in internetworked information systems. Given today's technological advances, professionals who are involved information technologies must be knowledgeable about the central concepts and security implications that frame and define this increasingly all-pervasive field.

The CSX Fundamentals Course is designed to provide an overview of this material, as well as to offer insight into the importance of cybersecurity and the integral role of cybersecurity professionals. This course will also cover four key areas of cybersecurity: 1) cybersecurity architecture principles, 2) security of networks, systems, applications and data, 3) incident response, and 4) the security implications of the adoption of emerging technologies. Designed as a foundational course, it will also prepare learners for the CSX Fundamental Exam.

Participants will receive (free of charge) the Cybersecurity Fundamentals Study Guide which is a comprehensive study aid that will help to prepare learners for the Cybersecurity Fundamentals Certificate exam. The Study Guide covers key areas that will be tested on the exam.

Who Should Attend This Course?

The target audience for this course includes individuals with the following qualifications:

- Audit, risk, compliance, information security, government and legal professionals with a familiarity of basic information technology and information systems concepts, who are:
- New to cybersecurity
- Interested in entering the field of cybersecurity
- Interested in the ISACA Cybersecurity Certification
- Students and recent graduates interested in the field of cybersecurity
- Individuals with zero to three years cybersecurity experience



NOTES

Fees should be cleared in full by October 25th, 2019. If the course does not take place, the full amount will be refunded.

Beginner – intermediate

The Athens Stock Exchange may cancel the program or change the dates and times for the suggestions without any obligation.

Participants will receive the Cybersecurity Fundamentals Study Guide, the course material as well as a certificate of attendance.



Course Learning Objectives

After completing this course, attendees will be able to:

- Define the key concepts, roles and domains of cybersecurity
- Define risk management terms, concepts and frameworks
- Identify common attack types and vectors
- Define the framework and guidance for policies and procedures
- Identify cybersecurity control processes
- Identify the various types of cybersecurity architecture
- Define the OSI Model
- Explain how various defense strategies work to control flow, segment the network and log, monitor and detect attacks
- Outline encryption fundamentals, techniques and applications
- Determine, assess and respond to risk and vulnerabilities on the network through penetration testing
- Identify key aspects and associated risks to securing data, applications, operation systems and the network
- Define incident response and handling methodologies
- Identify the basic concepts, practices, tools, tactics, techniques and procedures for processing digital forensic data
- Develop a disaster recovery and business continuity plan
- Identify the implications for adaption of evolving technology

Meet the course director

Allan Boardman, CISA, CISM, CGEIT, CRISC, CA (SA), ACA, CISSP

Allan is an independent business advisor helping organisations manage their information, cyber and privacy risks. He serves on ISACA's Audit and Risk Committee and CGEIT Certification Committee. He is an ISACA London Chapter Past President and has served on ISACA International's Board of Directors, its Strategic Advisory Council and chaired its Credentialing and Career Management Board and CISM Certification Committee.

He started his career at Deloitte in Cape Town where he qualified as a Chartered Accountant before moving to London in 1986. He has held leadership positions in audit, risk, security and governance related roles at various global organizations including GSK, Morgan Stanley, JPMorgan, Goldman Sachs, PwC and KPMG. He served as a volunteer at the London 2012 Paralympics, Sochi 2014 Paralympics and Rio 2016 Olympics.

Course Outline

I. Cybersecurity Introduction & Overview

- a. Introduction to Cybersecurity
- b. Difference between Information Security & Cybersecurity
- c. Cybersecurity objectives
- d. Cybersecurity roles
- e. Cybersecurity domains

II. Cybersecurity Concepts

- a. Risk
- b. Common attack types & vectors
- c. Policies & procedures
- d. Cybersecurity controls

III. Security Architecture Principles

- a. Overview of security architecture
- b. The OSI model
- c. Defense in Depth
- d. Firewalls
- e. Isolation & segmentation
- f. Monitoring, detection, and logging
- g. Cryptography Fundamentals
- h. Encryption techniques
- i. Encryption applications

IV. Security of Networks, Systems, Applications, & Data

- a. Process controls risk assessments
- b. Process controls vulnerability management
- c. Process controls penetration testing
- d. Network security
- e. Operating system security
- f. Application security
- g. Data security

V. Incident Response

- a. Event vs. incident
- b. Security incident response
- c. Investigations, legal holds, & preservation
- d. Forensics
- e. Disaster recovery & business continuity plans

VI. Security Implications & Adoption of Evolving Technology

- a. Current threat landscape
- b. Advanced persistent threats (APTs)
- c. Mobile technology vulnerabilities, threats, & risk
- d. Consumerization of IT & mobile devices
- e. Cloud & digital collaboration