

Information Systems Auditor

Course Overview

This course gets into auditing information systems. Topics covered include the IS audit process, governance and management of IT, IS operations, maintenance, and support, IS operations and business resilience, and protection of information assets.

Chapter 1 - The IS Audit Process

1h 50m

The IS Audit Process

Topic A: The Auditing Process and Auditors

Definitions

Types of Auditors

The Auditing Process (1)

The Auditing Process (2)

The Auditing Process (3)

Audit Planning Process

Topic B: Risk Analysis

Risk Analysis Defined

Assessing Countermeasures

Steps of Assessment

Motivations for Risk Analysis

Topic C: Internal Controls

Internal Controls: Objectives & Procedures

Internal Control Types

Internal Controls (Preventative)

Internal Controls (Detective)

Internal Controls (Corrective)

Goals of Internal Controls

Goals of Internal Controls

General Control Methods/Types

The IS Audit Process

Audit Classifications

Audit Classifications

Phases of the Audit Process (Page 1)

Phases of the Audit Process (Page 2)

Inherent Risks During Audits

A Risk-Based Audit Approach

Evidence

Evidence Gathering Techniques

Computer Assisted Audit

Control Self-Assessment (CSA)

Chapter 1 Review

Chapter 2 - Governance and Management of IT

2h 39m

Governance and Management of IT

Topic A: The Role of Governance

IT Governance

IT Governance

Governance Defined

Relationship Structure

Role of Auditor

Role of Auditor

Practices & Procedures

Practices & Procedures

Information Security Governance

Information Security Governance

Information Security Governance

Information Security Governance

Results of Security Governance

Goals of Security Governance

Topic B: Policies, Procedures, and Risk

IT Governance

Policies

Policies

Information Security Policy Document

Information Security Policy Document

Management Reviews

Management Reviews

Procedures

Procedures

Risk Management - Approaches

Risk Management

IT Risk Management - Levels

Topic C: IT Governance & Personnel Management

IS Management Practices

Personnel Management

Sourcing IS Functions

Insourcing and Outsourcing Strategy

Insourcing and Outsourcing Strategy

Change Management

Change Management

Organizational Quality Management

Quality Management

Organizational Quality Management

Performance Management

Organizational Quality Management

Chapter 2 Review

Chapter 3 - IS Operations, Maintenance, and Support

1h 55m

IS Operations, Maintenance, and Support

Topic A: Project Management

Project Management Structure

Project Management Structure

Example Organizational Chart
Practical Project Management
Practical Project Management – 5 Steps
Topic B: Software Development and Acquisition
Business Application Development
Business Application Development
Traditional SDLC Approach
Software Development Risks
Alternative Development Methods
Alternative Development Methods
Agile Development
Prototyping
Prototyping
R.A.D. – Rapid Application Deployment
R.A.D. – 4 Stages
Other Alternative Development Methods
Topic C: Infrastructure Development and Acquisition
Infrastructure Development and Acquisition
Analysis of Physical Infrastructures
4 Steps to Planning Infrastructure Implementation
Hardware / Software Acquisition
Maintaining Information Systems
Change Management Standards
Change Management Standards
Application Controls
Auditor Tasks
Input Controls
Data Validation Checks
Data Validation Checks
Output Controls
Chapter 3 Review

Chapter 4 - IS Operations and Business Resilience

2h 6m

IS Operations and Business Resilience
Topic A: Networking Models
Networking Models
Advantages of Reference Models
The OSI Model
Reliability
Topic B: IS Network Infrastructure
Network Types
Network Topology
VPN Defined
Wireless Specifications
Topic C: Business Continuity & Disaster Recovery
BCP/DR
Definitions
BCP/DR - 7 Steps to Recovery
BCP/DR Incident Classification
Business Impact Analysis - BIA

RPO and RTO
Recovery Strategies
Topic D: Recovery
Categories of Recovery Strategies
Business Recovery
Facilities, Materials, and Supplies
Facilities, Materials, and Supplies
Data Recovery
Topic E: Disaster Recovery
Disaster Recovery Plan (DRP) Development
BCP & DR - Teams
BCP Components
R.A.I.D.
Insurance
Business Continuity Plan (BCP) Testing
Types of BCP/DR Testing Strategies
Auditing BCP/DR
Business Continuity Management (BCM) Institutes and Organizations
Business Continuity Management (BCM)
Chapter 4 Review

Chapter 5 - Protection of Information Assets

1h 36m

Protection of Information Assets
Topic A: Protecting Data
Key Elements, Roles, and Responsibilities
Key Elements, Roles, and Responsibilities
Classifying Information Assets
System Access Permission
Topic B: Threats and Vulnerabilities
4 Categories of Attacks
Exposures and Vulnerabilities
Exposures and Vulnerabilities
Exposures and Vulnerabilities
Topic C: Access Controls
Logical Access Paths
Identification and Authentication Mechanisms
Strong Password Policy
Identification and Authentication Mechanisms
Authorization
Dealing with Data
LAN Security
Client-Server Security
Firewall
Intrusion Prevention Service (IPS)
Honeypot (HP)
Topic D: Encryption
Encryption Mechanisms
Encryption Mechanisms
Symmetric vs. Asymmetric
Topic E: Auditing Practices

Auditing IS Management Framework
Auditing Logical Access
Penetration Testing
Penetration Testing
Computer Forensics
Chapter 5 Review

Total Duration: 10h 6m