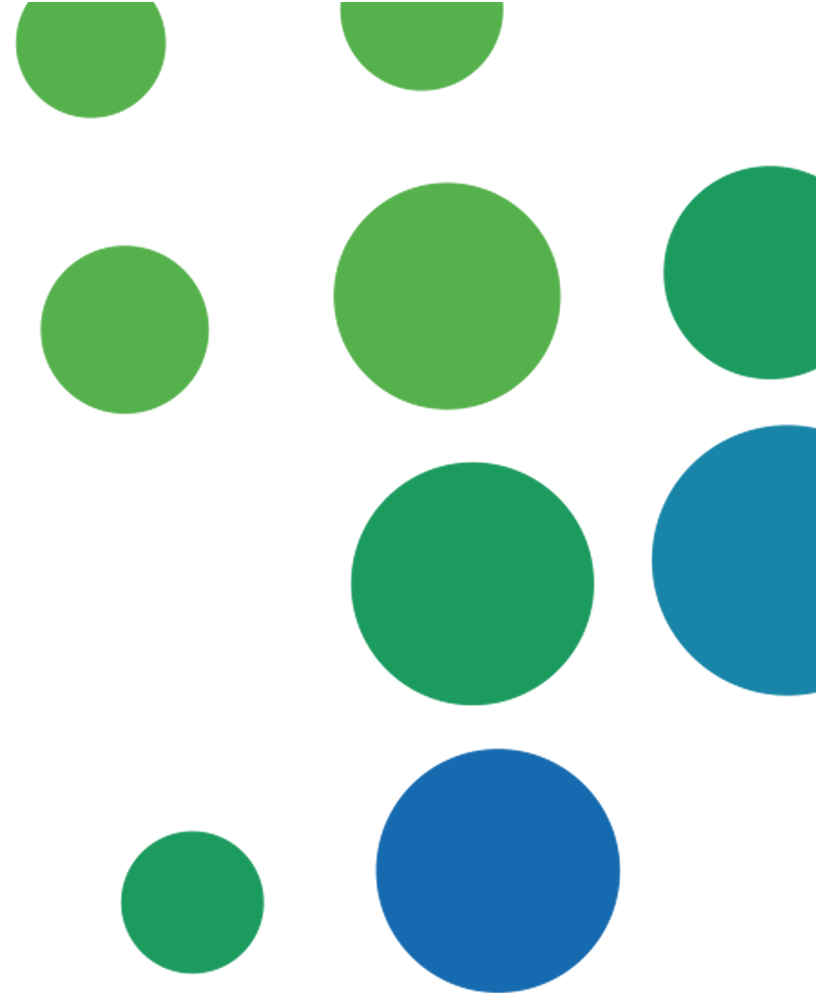# CPA PREPARATORY COURSES
SYLLABUS

Information Technology

Purpose

The purpose of this syllabus is to provide information about the Information Technology CPA preparatory course. This document has been produced for education administrators, course authors, course examiners, committee members, and resource people in the CPA education system; current and potential students and those who advise them; and others in the professional, academic, and general community.
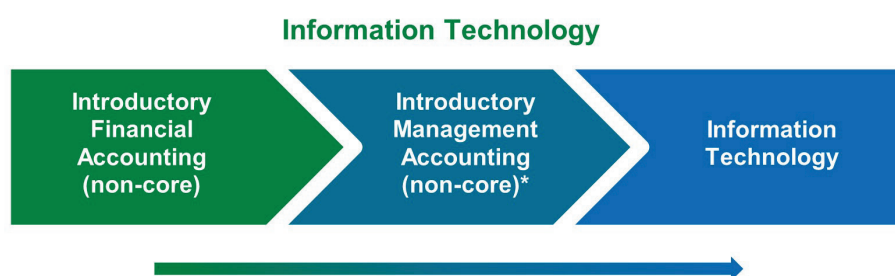
Course Overview

Course description

This six-week core course covers the use of computer-based information systems in management and accounting. After completing this course, students will have the knowledge required to make informed decisions about the applications of information technology.

Course prerequisites

The prerequisites for this course are the following courses or equivalent post-secondary courses:

Information Technology

Introductory Financial Accounting (non-core) → Introductory Management Accounting (non-core)* → Information Technology

* Introductory Management Accounting can be taken concurrently with, but not prior to, Introductory Financial Accounting.

Resources

See the Student Guide for a comprehensive list of course resources.

Grading

See the Student Guide for the course grading structure.

Course Outline

The following topics are covered in Information Technology:

Unit 1

- Discuss how to manage the risks of computer-based systems, the COBIT model, and the framework for assessing best practices in IT governance.
- Determine the key functions within an IT department, how the roles within these functions interact to carry out IT duties, and the importance of segregation of duties required across IT personnel.
- Examine how IT systems play a role in decision-making and the types of IT systems that are used by management.

Unit 2

- Describe how data is structured within systems and explore database structures, uses, and common database types, including their limitations.
- Examine the types of systems and networks, and different configurations of telecommunications elements within networks.
- Determine the components that make up IT, including hardware components and software applications.

Unit 3

- Discuss issues related to systems development, such as building or purchasing, and process management (completed on time, on budget, and works as promised).
- Describe the challenges and process of creating and implementing a data governance and data management strategy (including a description of the data life cycle, key roles in data management, and how good data governance facilitates good business analytics).

Unit 4

- Analyze the key aspects of data visualization and best practices for presenting information to support business decisions.
- Discuss the benefits and drawbacks of using spreadsheets and common uses of spreadsheets in analyzing data.

Unit 5

- Discuss logical and physical controls to manage access to information and address IT risks.
- Discuss regulatory requirements, basic IT security principles, and IT policies that are important to internal control.
- Describe best practices in documentation and record management, input and origination controls, processing, files, and output controls.

Unit 6

- Discuss disaster recovery and business continuity planning.
- Examine the basic concepts of e-business and e-commerce (including business models and components), and some of the costs and benefits of moving to an e-business model.
- Discuss emerging technologies with the potential to disrupt traditional accounting systems.
- Describe ethics for information technology, including privacy, security, and their related regulatory requirements

Reading List

The following chapters from the Information Technology volume of the eBook are the required readings for the course:

Unit 1

- Chapter 1 — Information Technology Governance
- Chapter 2 — IT Teams and Structures
- Chapter 3 — IT Systems

Unit 2

- Chapter 4 — Data Structures and Databases
- Chapter 5 — Network Systems
- Chapter 6 — IT Components

Unit 3

- Chapter 7 — Systems Development and Maintenance
- Chapter 8 — Data Governance and Management

Unit 4

- Chapter 9 — Data Analytics
- Chapter 10 — Spreadsheets

Unit 5

- Chapter 11 — Logical and Physical Access Controls
- Chapter 12 — Protection of Information
- Chapter 13 — Processing Integrity (Input, Processing, and Output Controls)

Unit 6

- Chapter 14 — System Disruption and Resolution
- Chapter 15 — E-Business and E-Commerce
- Chapter 16 — Emerging Technologies
- Chapter 17 — Compliance with Regulatory Requirements and Ethical Use of Information