Information Technology Overview
INTRODUCTION

Welcome to Information Technology. This is one of four general business CPA preparatory courses, which provide students with the opportunity to explore other areas relevant to the accounting and business profession.

COURSE PREREQUISITES

- There are no prerequisites for this course, but you are expected to have the following skills:
  - **Mathematics:** You are expected to have a sound understanding of basic mathematics and their application in the business context. The required level of knowledge can be gained from any standard business mathematics text.
  - **Software skills:** You are expected to have basic competence with Microsoft Windows and Microsoft Excel.

STRUCTURE AND DELIVERY

Information Technology is delivered on demand and includes the following material:

- Student notes
- Practice problems and solutions
- Quizzes
- Suggested study plans

The student notes are the basis for learning the material presented in the course. The notes cover each concept in sufficient detail as related to the competency map. The practice problems give you individual practice in mastering the concepts taught in the student notes. Quizzes are detailed in the assessment section of the course overview. Finally, suggested study plans are provided to help you plan your study time. You are encouraged to personalize these plans to meet your individual needs.
THE CPA WAY

You are encouraged to use the CPA Way, a methodical process for working through complex problems, when answering judgment-based questions in the course materials. CPA Way videos are located on the course homepage.

ASSESSMENTS

The overall mark needed to pass the course is 50% (with an average of 65% across all prerequisite courses required for entry into the CPA Professional Education Program). There are two components to the evaluation of Information Technology: quizzes and the final exam.

Quizzes
- Quizzes are worth 20% of the course mark.
- You are encouraged to print off the quiz questions and work through them as you study the related material.
- Study group discussion/collaboration is encouraged, but you must individually complete all quizzes.
- Information Technology has four quizzes that will count toward your final grade. Each quiz consists of 10 multiple-choice questions.
- You may complete quizzes at any time during the course; however, all quizzes must be completed the Thursday before the final exam in order for you to be permitted to write the final exam. You may start a quiz and then save and complete it at a later time, but note that each question can be attempted only once. Quizzes are not timed. Do not wait until the last minute to submit, in case you have an internet connection problem. There is only one opportunity to submit each quiz.
- Quizzes are graded based on the marks you receive. (If you answered eight out of the 10 questions on the quiz correctly, you would receive 80% on that quiz.)

Exam
- The exam is worth 80% of the course mark.
- The final exam is three hours long and consists of multiple-choice questions.
- The exam tests material covered throughout the entire course.
- Your provincial/regional affiliate will communicate the date and time of your final exam.
- You must write the exam to pass the course.
OVERVIEW OF TOPICS

The following is a brief overview of the topics covered.

Part 1: The strategic importance of information systems

Part 1 begins with the role of information systems in strategic planning, governance, and financial management within an organization. This section also discusses Porter’s Five Forces model, competitive strategies, and the difference between data and information.

Part 2: Types of information systems

Part 2 explores the key aspects of the various types of decision support systems. It begins with a discussion of data visualization and best practices for presenting information to support business decisions. This is followed by the characteristics and functions of the three types of management decision support systems: management information systems (operational), decision support systems (tactical), and executive support systems (strategic). Finally, a hands-on exercise provides you with experience using Excel as a decision-making tool.

Part 3: Systems development

Part 3 covers information systems planning, the traditional waterfall model, and alternative systems development methodologies. It address information systems development criteria, including feasibility, make versus buy, system testing and conversion, and system maintenance and replacement decisions. You will also learn about business process improvement, the importance of change management, and managing resistance to change as part of implementing information systems projects.

Part 4: Data, data modelling, and information

Part 4 focuses on information quality, database management systems, and the structure and management of data. It addresses the use of data analytics and artificial intelligence in decision-making as well as the impact big data is having on data processing.

Part 5: Managing information systems infrastructure and architecture

Part 5 covers information systems planning and management, including hardware, software, telecommunications, and e-commerce. You will learn about the factors to consider for successful information systems development and hardware and software planning.
Part 6: Risks and controls

Part 6 explores information systems risk management objectives, strategies, and frameworks, including compliance with legislation, the ethical use of information, information systems risks and controls, fraud, and business continuity planning. You will learn about implementing a system of general and application-level internal controls, which play a key role in preventing, detecting, and controlling errors and improving system reliability. This section also discusses differences in internal controls for small businesses compared to large businesses and end-user computing.