

Required Course Materials:

Management Information Systems, Managing the Digital Firm, Laudon, K.C., & Brabston, M.E., Pearson Education; Toronto, ON, Canada., 7th Cdn. ed., 2020.

Course Description:

This course will introduce students to the concepts of computer-based information systems in an organization. Students will examine the impact of information technology on an organization's decision-making as well as ethical issues facing managers. Information technology fundamentals are explored (networking and communications; database management systems, data warehousing, systems development) as well security, control frameworks and auditing computer-based systems.

Topics to be covered include: information systems, organizations and strategies, social, ethical and legal issues, information systems infrastructure, business process mapping and database design, e-commerce, systems security, systems development and emerging issues.

Learning Outcomes:

Explain the role of information systems in corporate strategy
Model business processes using process mapping and database design techniques
Identify components of information systems, networks, processing modules and software
Explain managerial theories in the context of corporations and IT departments
Identify social, legal, and ethical issues pertaining to information systems
Describe the concepts of controls, and change management for systems design, maintenance, and fraud avoidance
Describe the auditing of systems
Explain the key design aspects of e-commerce and related digital technology
Describe the systems development life cycle to IT project management
Identify emerging trends in information technology

Course Schedule:

Module 1 – Information Systems, Organizations, and Strategies

Module Overview:

Module 1 explores how information systems are transforming business, the components of an information systems and how these relate to corporate strategy. Information systems strategies are reviewed including how they enable companies to deal with competitive forces within a market-based economy, and how the value chain can be extended using information systems.

Module Objectives

- Introduction to information systems
- Information systems and business strategy
- When IT technology becomes the corporate strategy
- How businesses use information systems

- Information systems and business processes
- Using systems for competitive advantage
- COSO Enterprise Risk Management
- COBIT, ITIL, ISO27000

Module 2 – Information Systems Infrastructure

Module Overview:

This Module introduces you to the physical devices and software applications that are required to operate an entire enterprise and how they evolved over time.

Module Objectives

- Infrastructure components
- Hardware platforms
- Software platforms
- Database management systems
- Data warehousing
- Telecommunications
- Networks

Module 3 – Business Process Mapping and Database Design

Module Overview:

Module 4 introduces the structure and design of databases and information within a database and Enterprise Resource Planning (ERP) systems. It explores database design including the application of REA modeling, multiplicity analysis and field list analysis.

Module Objectives

- Data flow diagrams
- Relational database design
- Supply chain management
- Customer relationship management
- Data warehouse, data marts, business intelligence, business analytics

Module 4 – E-Commerce

Module Overview:

E-commerce refers digitally-enabled commercial transactions between and among organizations and individuals. This module explores the unique features of e-commerce and how e-commerce has impacted business. Types of e-commerce, such as business to consumer, business to business, and consumer to consumer, are explained with the enabling e-commerce technology.

Module Objectives

- Why E-Commerce is different than traditional models
- E-Commerce technology dimensions
- Digital markets and digital goods
- E-Commerce types and business models
- Mobile platforms

Module 5 – Systems Security

Module Overview:

Every management information system is intended to assist the organization in achieving its overall strategy, goals and objectives. There are potential risks that the organization needs to manage to ensure success. These risks can come from the external or internal environments and be intentional or unintentional. Module 6 introduces you to computer fraud and abuse techniques and how an organization can mitigate and protect themselves from these risks.

Module Objectives

- System vulnerability and abuse
- Securing information systems
- Business controls, segregation of accounting duties, segregation of systems duties and fraud avoidance
- Auditing information systems
- Trust Services Framework

Module 6 – Systems Development

Module Overview:

Companies in a very competitive global business world are constantly looking for new, faster, and more reliable ways of obtaining information. This module explores business process redesign including an overview of the systems development life cycle.

Module Objectives

- Systems development and organizational change
- The role of accountants in systems development
- Systems development life cycle
- Evaluating the value of information systems
- Change management

Module 7 – Emerging Issues – Individual Assignment

Module Overview:

Information technology is continuously evolving, and this module explores the latest topics impacting the world today.

Topics may include:

- Big data
- Artificial intelligence
- Virtual reality
- 3-D printing
- Expert systems
- Machine learning
- Global information systems strategies

Good Luck