

MIS 554: Management Information Systems

Program/Semester: MBA/Second Semester

Course Title: Management Information Systems

Course Code: MIS 554

Credit Hours: 3

Lecturer Hour: 45

Course Objectives

The course aims to provide knowledge about the management information systems, role of information systems in organizations and issues raised with the usage of management information systems in the organization and methods to deal with those issues. Students learn how information systems give an organization a competitive edge by providing technologies that help managers plan, control, and make decisions.

Course Description

This course is an application-oriented course that provides an overview of (1) the role of information systems in business process design, (2) the current technologies used for obtaining, storing, and communicating information in support of operations and decision-making within a business organization, and (3) the concepts and principles for programming, developing, and using popular spreadsheet and database tools. Applications focus on important problems and issues found in business disciplines, including accounting, finance, marketing, supply chain operations, and general management. The course also explores current information systems concepts and technologies.

Learning Outcomes

Upon successful completing this course, students will be able to do the following:

- Identify managerial challenges and opportunities for organizational advancement that may be resolved by the application of current new technologies.
- Identify opportunities for and successfully apply various information technologies to gain competitive advantage.
- Define and recognize key enabling technologies that may advance organizations now and in the future.
- Explain applications as groupware, the internet, executive information systems, telecommunications, and other organizational support technologies and relate them to solving organization problems.
- Make required personal and organizational changes to implement the new technologies in established and in new organizations.
- Identify new opportunities and champion the introduction and application of advancing technologies in an organization.

Course Contents

In line with the objectives of the course, the following topics have been selected:

Unit 1: Foundation concepts for Management Information System **LH 6**

Information Systems: Concepts, need, components, types, Information System Resources and activities; Management information system: concept, information technology for competitive advantage, role of information technologies on the emergence of new organizational forms, IT-enabled organizational transformation, information and knowledge economy, enterprise and global management of information technology.

Unit 2: Information Technology Infrastructures **LH 5**

Concept of IT Infrastructure, IT infrastructure components, computer hardware: computer systems, types of computer systems and enterprise computing; computer peripherals: input, output, and storage technologies; computer software: concept and types of software system, business application software, software alternatives, contemporary hardware and software trends.

Unit 3: Data Resource Management and Relational Database Management System **LH 7**

Concept of data and databases, traditional vs database approach, database models, data database structures, relational database management system, data warehouses and data mining, traditional file processing, the database approach to data management, database management systems, ER diagram, using databases to improve business performance and decision making, database system architectures: centralized systems, client server systems, distributed systems.

Unit 4: Computer Network and Telecommunications in Business **LH 6**

Need of computer networks and telecommunications in business; communication technologies in business: wired and wireless technologies; bandwidth and media; networks and their types; protocols; internet networking services; future of networking technologies; networking components, broadband telephony, VOIP, RFID and convergence.

Unit 5: Enterprise Information Systems and Supporting Decision Making **LH 6**

Types of information systems in the organisation; TPS, DSS, MIS and ESS, functional perspective of IS; enterprise systems; strategic uses of information systems; economic organisational and behavioural impacts; IT impact on decision making; leveraging technology in the value chain; MIS and core competencies; strategic information systems (SIS); developing IT strategies and IT solutions; outsourcing the IT function.

Unit 6: E-business Systems and E-commerce Systems **LH 9**

Defining e-commerce, e-commerce versus traditional commerce, scope of e-commerce, advantages and disadvantages of e-commerce, essential e-commerce processes, e-commerce technologies, access control and security, e-commerce business models, major categories of e-commerce: business-to-consumer (B2C), business-to-business (B2B), consumer-to-consumer (C2C), consumer-to-business (C2B) and government and government (G2G); e-commerce supporting technologies: electronic payment systems, Web marketing, mobile marketing, search engine optimization; social media information systems, digital markets and digital goods in a global marketplace. electronic payment

systems: overview of the electronic payment technology - requirements for internet-based payments - electronic payment medias - electronic commerce and banking.

Unit 7: Security and ethical challenges in information Systems **LH 6**

Security, ethical and societal challenges of IT, security management of information technology, understanding social and ethical issues, relationship between ethical, social and political issues, moral dimensions of information age, technology trends that raises ethical issues.

Note: Term Paper/ Case Study Report - The student or student group (at most 5 students) needs to finish a written case study report (2500 – 3000 words) on the use of Information Systems or Mobile technology or Ecommerce in a firm or society. The report must reflect understanding of students on basic concepts taught in the course and capability of using them to analyze practical cases.

Required Textbooks and Materials

Prescribed text books:

Laudon, Kenneth C., Laudon, Jane P. (2013). *Management information systems, 12th ed.* United Kingdom: Pearson Education Ltd.

O'Brien, J. A., & Marakas, G. M. (2006). *Management information systems.* Boston: McGraw-Hill Irwin.

Suggested reference:

R. Kelly Rainer, Efraim Turban & Richard E. P. (2006). *Introduction to information systems: supporting and transforming business.* John Wiley & Sons.

