IT226: Management Information System

Course Objectives

This module aims to provide students with a background on the use and advantages of information systems in organizations with a focus on managerial aspects of MIS to promote an awareness of the economic, social, and ethical implications of such systems on society and IT professionals.

Course Description

Foundations of Information Systems in business, Foundation concepts: The components of IS, Competing with Information Technology, Using Information Technology for strategic Advantage, Managing Data Resources, e-business Systems, Supporting Decision Making.

Course Details

Unit 1: Foundations of Information Systems (IS) in Business   LH 7

- The real world of information system and information system
- The fundamental Roles of IS in Business
- The role of e-business in business
- Types of Information Systems:
  - Operations support systems
  - Management support systems
  - Other classifications of IS
- Managerial Challenges of Information Technology (IT)
  - Success and Failure with IT
  - Developing IS solutions
  - Challenges and Ethics of IT
  - Challenges of IT careers
  - The IS function

Unit 2: Foundation concepts: The components of IS   LH 7

- System concepts: A foundation: System, Feedback and Control
- System characteristics
- Components of ISs
- Information system resources
  - People, hardware, software, data, Network
- Information System Activities
  - Input, Process, Storage of data, Output of Information Products, Control
- Recognizing Information systems

Unit 3: Competing with Information Technology   LH 7

- Fundamentals of Strategic Advantage
- Strategic IT
- Competitive Forces and strategies
- Strategic Uses of Information Technology
- Building a customer-focused business

- The value chain and strategic IS
- Value chain examples

Unit 4: Using Information Technology for strategic Advantage   **LH 7**
- Strategic Uses of IT
- Reengineering Business Processes
- The role of IT
- Becoming an Agile company
- Creating a virtual company
- Building a knowledge-creating company
- Knowledge management systems

Unit 5: Managing Data Resources   **LH 7**
- Date resource management
- Types of databases: operational, distributed, external, hypermedia databases
- Data warehousing and data mining
- The database management approach
  - Database management system, database interrogation, database maintenance, application development

Unit 6: e-business Systems   **LH 7**
- Introduction
- Cross-functional enterprise applications
- Enterprise application integration
- Transaction processing systems
  - The transaction processing cycle
- Enterprise collaboration systems: tools for enterprise collaboration
- Functional business systems
  - Introduction, IT in business
  - Marketing systems: interactive marketing, targeted marketing, sales force automation
  - Manufacturing systems: computer-integrated manufacturing
  - Human resource systems: HRM and Internet, HRM and corporate Intranets
  - Accounting Systems: online Accounting systems
  - Financial management systems

Unit 7: Supporting Decision Making   **LH 6**
- Decision support in business
- Information, decisions, and management
- Information quality
- Decision structure, decision support trends, decision support systems
- Online analytical processing: OLAP examples
- Using decision support systems: what-if analysis, sensitivity analysis, goal-seeking analysis, optimization analysis, data mining for decision support

Text books

Management Information systems, James A O'brien, George M Marakas, Ramesh Behl, Tenth Edition, McGraw Hill education.

Kenneth C. Laudon, Jane P. Laudon, *"Management* **Information System, Managing the Digital Firm"**, Ninth Edition, Pearson Education

References

Management information systems, Waman S Jawadekar, fourth edition, Tata McGraw Hill

Information technology for management, Ramesh Behl, Tata McGraw Hill