

TM106: Information Systems for Managers

Course Information

Particular	Details
Course Code	TM106
Course Title	Information Systems for Managers
Programme	MBA (Technology Management)
Category	Foundation/Core
Credits	4
L-T-P	3-1-0
Contact Hours	60
Semester	I
Prerequisite	Basic Computer Knowledge

Course Description

This course provides an understanding of Information Systems (IS) and their strategic role in modern organizations. It introduces students to digital business, enterprise systems, data management, cloud computing, cybersecurity, business intelligence, artificial intelligence, and digital transformation. The course emphasizes the use of information systems for managerial decision-making, operational excellence, innovation, and competitive advantage in technology-driven organizations.

Course Objectives

Upon successful completion of the course, students will be able to:

1. Understand the concepts and strategic importance of Information Systems in organizations.
2. Analyse business processes supported by information systems.
3. Apply enterprise information systems for managerial decision-making.
4. Evaluate emerging digital technologies and cybersecurity challenges.
5. Develop digital transformation strategies using modern information systems.

Course Outcomes (COs)

After successful completion of the course, students will be able to:

CO	Course Outcome	Bloom's Level
C01	Explain the concepts, components, and strategic role of information systems in business organizations.	K2 (Understand)
C02	Apply information systems, enterprise applications, and database concepts to support managerial decision-making.	K3 (Apply)
C03	Analyse business processes using enterprise systems, business intelligence, and analytics tools.	K4 (Analyse)
C04	Evaluate digital technologies, cybersecurity risks, and governance practices for organizational effectiveness.	K5 (Evaluate)
C05	Assess the impact of emerging technologies on digital transformation and technology management.	K5 (Evaluate)
C06	Design digital business solutions using information systems to improve organizational performance and innovation.	K6 (Create)

Course Contents

Unit I: Foundations of Information Systems

Introduction to Information Systems, Data, Information and Knowledge, Types of Information Systems, Transaction Processing Systems (TPS), Management Information Systems (MIS), Decision Support Systems (DSS), Executive Information Systems (EIS), Strategic Information Systems, Information Systems in Technology Organizations

Tutorials: Case Study on Digital Business, Information System Classification

Unit II: Enterprise Information Systems

Business Process Management, Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), Supply Chain Management (SCM), Knowledge Management Systems, Database Management Systems, Data Warehousing, Data Governance, Cloud-Based Enterprise Systems

Tutorials: ERP Process Mapping, Database Design Exercises

Unit III: Business Intelligence and Analytics

Business Intelligence Concepts, Data Analytics, Dashboards and KPI Reporting, Data Visualization, Big Data, Artificial Intelligence in Business, Machine Learning Applications, Decision Analytics, Digital Platforms

Tutorials: Dashboard Development, BI Case Study

Unit IV: Digital Technologies and Cybersecurity

Cloud Computing, Internet of Things (IoT), Block chain, Artificial Intelligence, Robotic Process Automation (RPA), Cybersecurity, Information Security, Data Privacy, IT Governance, Risk Management, and Digital Ethics

Tutorials: Cybersecurity Risk Assessment, Digital Technology Review

Unit V: Information Systems Strategy and Digital Transformation

Digital Transformation, Industry 4.0, Smart Manufacturing, Digital Innovation, IT Strategy, Green Information Systems, E-Governance, Digital Business Models, IT Project Management, Emerging Trends in Information Systems

Tutorials: Digital Transformation Roadmap, Technology Strategy Presentation

Suggested Text Books

1. **Laudon, Kenneth C. & Laudon, Jane P. (2022).** *Management Information Systems: Managing the Digital Firm* (17th Edition). **Pearson Education.**
2. **O'Brien, James A. & Marakas, George M. (2019).** *Management Information Systems* (11th Edition). **McGraw-Hill Education.**
3. **Rainer, R. Kelly, Prince, Brad & Watson, Hugh J. (2020).** *Introduction to Information Systems* (8th Edition). **Wiley.**

Reference Books

1. **Stair, Ralph M. & Reynolds, George W. (2021).** *Principles of Information Systems* (14th Edition). **Cengage Learning.**
2. **Turban, Efraim, Pollard, Carol & Wood, Gregory (2018).** *Information Technology for Management: On-Demand Strategies for Performance, Growth and Sustainability* (11th Edition). **Wiley.**
3. **Avison, David & Fitzgerald, Guy (2006).** *Information Systems Development: Methodologies, Techniques and Tools* (4th Edition). **McGraw-Hill Education.**
4. **Jawadekar, W. S. (2012).** *Management Information Systems: Text and Cases* (5th Edition). **McGraw-Hill Education.**
5. **Pearlson, Keri E., Saunders, Carol S. & Galletta, Dennis F. (2023).** *Managing and Using Information Systems: A Strategic Approach* (8th Edition). **Wiley.**
6. **Davenport, Thomas H. (1993).** *Process Innovation: Reengineering Work through Information Technology* (1st Edition). **Harvard Business School Press.**

Course Articulation Matrix

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