FAR WESTERN UNIVERSITY

Faculty of Management

Course Title: **Management Information Systems**	Total Marks: 100
Course Code: **MGT 364**	Pass Marks: 45
Nature of course: Theory/Practical	Time per period: 1 hr.
Semester: Sixth	Total periods: 45
Level: BBA	Credit hours: 3

1. Course Introduction

This course introduces information systems that are used for organizational decision making and problem solving. It discusses the significant managerial aspects of treating information as an organizational resource and its increasing impact on today's organization. Topics to be covered include Information Systems in Global Business, E-Business and Information Systems, Information Systems and Organizational Strategy, Ethical and Social Issues Related to IS, IT Infrastructure and Emerging Technologies, Databases and Information Management, Data Communication, Securing Information Systems, and Planning and Building Information Systems.

2. Objectives

By the end of this course, it is expected the student will be able to:

- highlight information systems and their effectiveness in organization success
- give better explanation IT infrastructure such as computer hardware, software, network and data resources
- provide concepts of new ethical issues, security threats, information system development process
- analyze the business issues, processes, and techniques associated with organizational information systems;
- explain basic concepts about information systems development, implementation and review; and

3. Specific Objectives and Contents

Specific Objectives	Contents
• Differentiate between data, information, information systems, and information technology • Understand trends in MIS and Challenges and opportunities due to globalization • Discuss how MIS can transform businesses	**Unit I: Information Systems in Global Business (5)** 1.1. Role of Information Systems in Business, How Information Systems are Transforming Business 1.2. New in MIS, Globalization Challenges and Opportunities, Emerging Digital Firm. 1.3. Data vs Information, What is Information System?, Dimensions of IS, Contemporary approaches to IS 1.4. MIS Hands-on Project: Sales Trend Analysis by using Database or Excel, Business Case

• Understand role of information systems to enhance business process • Explore information systems used in different organizational levels and functional areas • Conceptualize role of enterprise applications and collaboration systems in business firms	**Unit II: E-Business & Information Systems (5)** 2.1. Business Processes, Use of Information Technology to Enhance Business Process 2.2. Types of Information Systems: Transaction Processing Systems, Management Information Systems, Decision Support Systems, Executive Support Systems, 2.3. Overview of Enterprise Applications, Types of Enterprise Applications, Intranets & Extranets, Collaboration & Communication Systems, E-Business, E-Commerce & E-Government 2.4. MIS Hands-on Project: Analyzing Opportunities by using Excel, Business Case
• Understand Organization and Impact of IS in Organizations • Discuss competitive advantages of using information systems. • Explain Business value chain and impact of internets in competitive advantages	**Unit III: Information Systems & Organizational Strategy(5)** 3.1. What is Organization?, Features of Organization, Impact of IS on Organization and Business Firms 3.2. Information Systems and Competitive Advantages, Porters Competitive Force Model, Using Information System to Deal with Competitive Forces, Impact of Internet on Competitive Advantages. 3.3. Business Value Chain Model, The Value Web, Synergies, Core Competencies and Network Based Strategies, 3.4. MIS Hands-on Project: Finding Product Information and Pricing By Using Internet, Business Case
• Relate ethical issues with society and politics • Understand the types of ethical issues raised due to growth of information systems & internet • Describe and exemplify moral dimensions of information age • Identify some ethical dilemmas created due to information systems	**Unit IV: Ethical & Social Issues Related to IS (5)** 4.1. Understanding Social and Ethical Issues: Ethics, Relationship between Ethical, Social and Political Issues, Moral Dimensions of Information Age, Technology trends that raises Ethical Issues 4.2. Ethics in Information Society: Responsibility, Accountability & Liability, Ethical Analysis, Some Real World Ethical Dilemmas 4.3. MIS Hands-on Project: Analyzing Privacy and other Ethical Issues by Analyzing Data, Business Case
• • Understand IT infrastructure needed for information systems and its components. • Describe sages and technology drivers of IT infrastructure evolution • Describe current trends in hardware & software platforms • Identify challenges of managing IT infrastructure and management solutions	**Unit V: IT Infrastructure & Emerging Technologies (5)** 5.1. What is IT Infrastructure, Evolution of IT Infrastructure, Technology Drivers for of Infrastructure Evolution 5.2. Infrastructure Components, Contemporary Hardware Platform Trends, Contemporary Software Platform Trends 5.3. Competitive Forces Model for IT Infrastructure Investment, TCO for Technology Assets 5.4. MIS Hands-on Project: Evaluating alternative desktop system by using web and spreadsheet, Business Case

• Understand challenges of managing data resources in traditional file environment and their solution by using DBMS. • Identify capabilities of DBMS and important principles of database design • Exemplify important tools and techniques for accessing information from database to improve decision making & business performance	**Unit VI: Databases and Information Management (6)** 6.1. Traditional File Environment: Concept, Terminologies, and Problems 6.2. Database Approach for Data Management: Database, DBMS, RDBMS, Capabilities of DBMS, ER Diagrams, Normalization, Distributing Databases 6.3. Data warehouse, Components of Data Warehouse, Data Marts, Business Intelligence, Multidimensional Data, OLAP, Data Mining, Databases and Web\ 6.4. MIS Hands-on Project: Creating and Querying Databases, Business Case
• Identify components of telecommunication networks and key networks technologies • Describe main transmission media and types of networks • Understand working of internet technology and services provided by internet • Conceptualize wireless networks and exemplify its business value	**Unit VII: Data Communication (6)** 7.1. Networking & Communication Trends, Components of Computer Networks, Corporate Network Infrastructure, Networking Technologies, 7.2. Signals, Types of Networks, Network Topology & Transmission Mediums, Transmission Speed 7.3. Defining Internet, Internet Service Providers, Internet Addressing, Internet Architecture and Governance, IPV6 and Internet2, Internet Services and Communication Tools, Search Engines, Web 2.0 & 3.0, Intranets and Extranets 7.4. Cellular network Standers and Generations, Wireless Computer networks and Internet Access, RFID, Wireless Sensor Networks. 7.5. MIS Hands-on Project: Evaluating and Selecting Communication Technology and Spreadsheet, Business Case.
• Describe the reasons behind vulnerabilities of information systems • Understand business value of security and control • Identify and explain different tools used for protecting organizational information	**Unit VIII: Securing Information Systems (4)** 8.1. Why Systems are Vulnerable, Internet Vulnerabilities, Wireless Security Challenges, Malicious Software, Hackers and Computer Crime, Software Vulnerabilities 8.2. Business value of Security and Control, Legal and Regulatory Requirements for Electronic Record Management, Electronic Evidence and Computer Forensic. 8.3. Information System Control, Risk assessment, Security Policy, Disaster Recovery and Business Continuity Planning, Role of Auditing 8.4. Access Control, Firewalls, Intrusion Detection Systems, Antivirus Software, Securing wireless Networks, Encryption and PKI, Ensuring System Availability 8.5. MIS Hands-on Project: Analysing Security Vulnerabilities by using Spreadsheets and Web Tools, Business Case

• Describe the role of information systems in organizational changes & improvements • Understand core activities of system development process • Explain methodologies for modeling and designing systems • Describe alternative and new methods of developing information systems	**Unit IX: Planning & Building Information Systems (4)** 9.1. System development and Organizational Change, Business Process Reengineering, Process Improvement, Information Systems and Quality Improvements 9.2. System Development Process, Structured and Object Oriented System Modeling and Design Methodologies, Computer Aided Software Engineering 9.3. Alternative System Development Methodologies: Prototyping, End user Development, Application Packages & Outsourcing, Rapid Application Development, Component-Based development

Prescribed Text

- *Laudon, K. C. & Laudon, J. P.,* Management Information Systems, 12th Edition Pearson, 2013
- *James A. O'Brien, George Marakas*, Management Information Systems, 7th Edition McGraw-Hill Companies, 2006
- *R. Kelly Rainer, Efraim Turban, Richard E. Potter*, Introduction to Information Systems: Supporting and Transforming Business, Wiley, 1st Edition, 2006