Gyanmanjari
Innovative University

Subject: Management Information System - BCAXX16331

Type of course: Major Core

Prerequisite: Basic understanding of business processes, management principles, and information technology fundamentals along with familiarity in Office tools.

Rationale:

This course aims to provide students with a comprehensive understanding of how information systems support organizational decision-making and business processes and also helps students to understand the integration of IT solutions to solve complex business challenges. It equips students with both theoretical knowledge and practical skills to manage and leverage information systems in various organizational environments.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks			Total Marks
						CCE	
CI	T	P	C	SEE	MSE	ALA	
4	0	0	4	100	30	70	200

Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; SEE - Semester End Evaluation; MSE- Mid Semester Examination; LWA - Lab Work Assessment; V – Viva voce; CCE-Continuous and Comprehensive Evaluation; ALA- Active Learning Activities.

4 Credits * 25 Marks = 100 Marks (each credit carries 25 Marks) Theory
SEE 100 Marks will be converted in to 50 Marks
CCE 100 Marks will be converted in to 50 Marks
It is compulsory to pass in each individual component.

Course Content:

Sr. No	Course content	Hrs	% Weightage
1	**Introduction to MIS** • Introduction to Information System • Why information system? • Classification of Information • Key aspects of Management • What are MIS? Definitions, roles and features • Structure of Management Information System • Benefits of Management Information System • Limitations of Management Information System	11	20%
2	**MIS Development** • Overview of design of an information system • The role and tasks of systems analysts, • Tools used by system analyst in designing Information system • MIS Requirement Analysis • MIS Requirement Specification • Feasibility Analysis & Report • MIS Development Models • MIS Design & Development Phase	13	20%
3	**Decision Support System in MIS** • Types of Decisions • What is DSS?, Characteristics of DSS • Components of DSS • Role of Decision Support System in MIS • Decision Support Models • Risks of DSS in MIS	12	20%
4	**Integration of Information** • Areas of MIS Integration with various business function • Enterprise Resource Planning (ERP) & MIS • Enterprise Management System (EMS) & MIS • Customer Relationship Management (CRM) • Business Process Outsourcing (BPO) -BPO, • Electronic Commerce Systems (E-Commerce) • Data Warehouse and Data mining	12	20%
5	**MIS Security** • MIS Security Risks, Threats & Vulnerability, Assessing Risks. • Common MIS Controls (Physical, Electronic, Software, Management Controls) • MIS Threats (Natural Disasters, Employee Errors, Computer Crime, Fraud, Abuse, Program Bugs) • Information Security and control concepts-Access controls, QA and QC concepts with respect to the processes of various functional areas of management, social and security issues related to MIS,Control, Audit and Security of MIS	12	20%

Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1	**Case Study Discussion on MIS :** Students will open the given MIS case study on the GMIU web portal, study how MIS helps to solve company problems, and take part in an online discussion. After that, they will write and submit a short note about what they learned on the portal.	10
2	**Design Thinking Challenge: Improving College MIS :** Students will identify issues in the college's MIS (e.g., ERP, attendance, feedback system), gather peer feedback, and submit a prototype or improvement plan to enhance system functionality and user experience. **Submit all findings and prototypes through the GMIU Portal**	10
3	**Applies DSS models for problem solving :** Students will create a simple **decision matrix or decision tree** using **Microsoft Excel** to analyze and compare alternative business decisions, then save and submit the file for evaluation.	10
4	**Selective Response:** Students will be assigned a selective response-based test on GMIU web portal..	10
5	**Data Warehouse & Mining Demo :** Students will work in groups of **up to 4 members** to explore a sample data warehouse and apply basic data mining techniques such as **classification**, **clustering**, or **association analysis**. They will analyze the extracted insights, prepare a concise report of their findings, and submit it on the **GMIU web portal**.	10
6	**Mapping Exercise :** Students will analyze and create a visual mapping showing how the Management Information System (MIS) supports key business functions such as **Human Resources, Finance, Marketing, and Production**, and present their findings through a chart or diagram.	10
7	**Smart Systems in Action: When MIS Meets AI :** Students will explore how AI and Analytics transform traditional MIS into **Smart MIS** by analyzing a real organization (e.g., Amazon, Netflix, HDFC Bank) and demonstrating how AI tools optimize performance and decision-making.	10
	Total	**70**

Suggested Specification table with Marks (Theory):75

Distribution of Theory Marks **(Revised Bloom's Taxonomy)**					
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	25%	35%	15%	15%	0	10%

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Course Outcome:

	After learning the course the students should be able to:
CO1	Define and critically analyze the foundational concepts, structure, and limitations of Management Information Systems.
CO2	Apply system analysis methodologies to design, prototype, and evaluate MIS-based business solutions.
CO3	Utilize Decision Support System (DSS) frameworks to address business issues through simulated decision-making scenarios.
CO4	Explain the integration of MIS with enterprise systems such as ERP, CRM, BPO, and E-Commerce platforms.
CO5	Assess potential security risks, threats, and vulnerabilities associated with MIS implementation.

Instructional Method:

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.
Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory etc.

The internal evaluation will be done on the basis of Active Learning Assignment

Reference Books:

[1] Laudon, K. C., & Laudon, J. P. (2020). Management information systems: Managing the digital firm (16th ed.). Pearson Education.

[2] O'Brien, J. A., & Marakas, G. M. (2011). Management information systems (10th ed.). McGraw-Hill Education.

[3] Stair, R., & Reynolds, G. (2013). Principles of information systems (12th ed.). Cengage Learning.

[4] Turban, E., Volonino, L., & Wood, G. R. (2015). Information technology for management: Digital strategies for insight, action, and sustainable performance (10th ed.). Wiley.

[5] Jawadekar, W. S. (2013). Management Information Systems: Text and Cases (4th ed.). McGraw-Hill Education.