GUJARAT TECHNOLOGICAL UNIVERSITY

BRANCH NAME: PRODUCTION ENGINEERING (25)
SUBJECT NAME: MANAGEMENT INFORMATION SYSTEM (Department Elective-II)
SUBJECT CODE: 2172508
B.E. 7TH SEMESTER

Type of course: Under Graduate

Prerequisite: NIL

Rationale: The course aims to impart basic knowledge of MIS.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks						Total Marks
				Theory Marks			Practical Marks			
L	T	P	C	ESE (E)	PA (M)		PA (V)		PA (I)	
					PA	ALA	ESE	OEP		
3	2	0	5	70	20	10	30	0	20	150

Content:

Sr. No.	Content	Total Hrs	% Weightage
1	**Management within organizations:** Management activities, roles and levels, Management Planning and Control, Strategic Planning within an organization: activities, techniques and results. The nature of decision-making: decision-making models and classification of decision-making situations, The nature of information: classifications and characteristics. MIS sub types, Measurement of MIS performance and capabilities.	6	15
2	**MIS applications and relationships:** Kinds of Information Systems: Transaction Processing System(TPS) – Office Automation System (OAS) – Management Information System (MIS) – Decision Support System (DSS) and Group Decision Support System (GDSS) – Expert System (ES) – Executive Support System (ESS) Data warehouses and data mining facilities: the relationship between data warehousing and other MIS facilities.	9	20
3	**Development of MIS:** Development of Long range plans, Determining information requirement, Development and Implementation, Organization for Development of MIS, Choice of Information Technology, Strategic decision, Configuration design, IT implementation plan, Phases of MISD implementation Assessing information needs, Identification and development of information sources, design and development of information flow network and cost considerations, need and design of an integrated information system for MIS, role of computers in MIS: Processing information flow, Maintaining	11	25

	records and generating outputs for decision making. Implementation and evaluation of MIS			
4	**Information System Application** Transaction Processing Applications, Applications for Budgeting and Planning, Automation, Manufacturing Management System,	6	15
5	**Database Management System:** Architecture of RDBMS. Brief history of DBMS development. ER Model. Relational Data Model, Relational algebra, Database design, Conceptual and physical model, MIS and RDBMS.	5	12
6	**Enterprise System:** Enterprise Resources Planning (ERP)-Features, selection criteria, merits, issues and challenges in Implementation.	5	13
	Total	42	100%

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks				
Remembrance **R Level**	**Understanding U Level**	**Application A Level**	**Analyze** **N Level**	**Evaluate E Level**
07	14	21	14	14

Legends: R: Remembrance; U = Understanding; A = Application and above Levels (Revised Bloom's Taxonomy)

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

Text Books:

1. Kenneth C. Laudon & Jane P. Laudon, Essentials of Management Information Systems, Tenth Edition, Pearson Prentice-Hall, 2012
2. Laudon K.C, Laudon J.P, Brabston M.E, "Management Information Systems -
3. Managing the digital firm", Pearon Education, 2004
4. Turban E.F, Potter R.E, "Introduction to Information Technology";Wiley, 2004.
5. Jeffrey A.Hoffer, Joey F.George, Joseph S. Valachich, "Modern Systems Analysis and Design", Third Edition, Prentice Hall, 2002.

Course Outcome:
After learning the course the students should be able to:
1. Understand MIS & its applications.
2. Applications for Budgeting and Planning.
3. Developments in hardware, software, Internet and communications capabilities and their implication for MIS.

4. Techniques and methodologies for supporting MIS development:
5. Trends in management and organisations.

List of Experiments:
Assign tutorials based on Syllabus

Design based Problems (DP)/Open Ended Problem:

NA

Major Equipment:
Nil

List of Open Source Software/learning website:
1. **http://nptel.ac.in/**

ACTIVE LEARNING ASSIGNMENTS: Preparation of power-point slides, which include videos, animations, pictures, graphics for better understanding theory and practical work – The faculty will allocate chapters/ parts of chapters to groups of students so that the entire syllabus to be covered. The power-point slides should be put up on the web-site of the College/ Institute, along with the names of the students of the group, the name of the faculty, Department and College on the first slide. The best three works should submit to GTU.