



GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Engineering

Subject Code: 3734606

Semester – III

Subject Name: Enterprise Resource Planning

Type of course: Program Elective V

Prerequisite: Nil

Rationale:

The aim of this course is to make students aware about 'Enterprise Resource Planning - ERP', which is a process by which a company manages and integrates the important parts of its business. An ERP management information system integrates areas such as planning, purchasing, inventory, sales, marketing, finance, human resources, etc.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
3	0	0	3	70	30	0	0	100

Content:

Sr. No.	Contents	Total Hrs
1	Introduction to ERP: Common ERP myths, Evolution of ERP, Advantages, Characteristics, Process integration with ERP system, Implementation costs, Roadmap for successful ERP implementation.	4
2	ERP Market and Vendors: ERP market, ERP vendors, Service oriented architecture, ERP package features.	4
3	Extended ERP services: Defining Extended ERP, Supply chain Management (SCM) and ERP, ERP and Business Intelligence (BI), ERP and E-commerce.	4
4	Business Process Re-engineering (BPR) and ERP: Defining BPR, BPR Vs TQM, BPR and change management, approaches in BPR implementation, Methodologies for BPR implementation, BPR success/failure factors.	6
5	Planning for ERP: Planning for ERP implementation, understanding organizational requirement, Economic and strategic justification, Project scope, Determining resources, organizational commitment to change, budget for ERP, select right ERP package.	6
6	Implementation of ERP: Designs of ERP system, ERP implementation approach, ERP implementation life cycle, different phases of ERP implementation.	3
7	Managing ERP projects: Risk/Failure factors in ERP implementation, Example of ERP failure, Critical success factors, Complexities of ERP projects, Evaluating ERP projects.	4
8	ERP: Going Live and post implementation: Preparing to go live, Strategies for migration to new ERP system, Managing ERP after Go Live, Maintenance of ERP system.	4



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9	ERP, Internet and WWW – ERP II: The internet explosion, ERP, Internet and WWW, ERP to ERP II, Best practices of ERP II.	4
10	Future directions and Trends in ERP: New markets, New channels, Easier communication tools, Business models, Need based applications, Expenditures, Reduction in implementation time, Market snap shots, Shifting revenue models.	6
	Total Hours	45

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	10	30	30	10	10

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create 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.

Reference Books:

1. Enterprise Resource Planning, Ashim Raj Singla, Cengage Learning India Pvt. Ltd., New Delhi, 2008.
2. Enterprise Resource Planning, Alexis Leon, 2nd edition, Tata Mcgraw Hill Education Pvt. Ltd., New Delhi, 2008.
3. E-Business and ERP: Transforming the Enterprise, Grant Norris, James R. Hurley, Kenneth M. Hartley, John R. Dunleavy, John D. Balls, John Wiley and Sons, 2000.
4. Enterprise Resource Planning: Concepts and Practice, V.K. Garg.

Course Outcomes:

Sr. No.	CO statement	Marks % weightage
CO-1	Understand the concepts and importance of ERP system.	20
CO-2	Understand ERP market and vendors.	30
CO-3	Understand the relationship of ERP and SCM.	30
CO-4	Able to understand the concept ERP implementation.	20

List of Open Source Software/learning website:

1. The concerned faculty member shall provide the list of peer reviewed Journals and Tier-I and Tier-II Conferences relating to the subject (or relating to the area of thesis for seminar) to the students in the beginning of the semester.
2. NPTEL