

Devi Ahilya University, Indore, India			IV Year B.E.				
Institute of Engineering and Technology			Information Technology (Full Time)				
Subject Code & Name	Instructions Hours per Week			Credits			
ITR8E2	L	T	P	L	T	P	Total
Enterprise Resource Planning	3	1	2	3	1	1	5
Duration of Theory Paper: 3 Hours							

### Learning Objectives:

- To facilitate students in understanding the concepts of system, business processes and business organization.
- To know the basics of ERP, standard components of ERP, key implementation issues and some popular ERP products for competitive advantage.
- To understand integration of enterprise wise business processes through Information Technology.

**Prerequisites:** Concepts of Business Data Processing, Information Systems and , Data Bases.

## COURSE OF CONTENTS

### Unit-I - ERP-An Introduction

Overview of ERP; Enterprise –An Overview; Scope, Benefits of ERP and it evolution; Integrated Information Management; Resource Management; Integrated Data Model; ERP and Modern Enterprise, MRP and MRP-II.

### Unit-II - Business Engineering and Related Technologies

Business Engineering; Significance of Business Engineering; Principles of Business Engineering; Business Engineering with Information Technology; ERP and Management Concerns; BPR, Data Warehousing; Data Mining, On-line Analytical Processing etc, Supply Chain Management; ERP and Related Technologies.

### Unit-III - ERP Implementation

Business Modelling for ERP; Building the Business Model; ERP Implementation Life Cycle; Implementation Methodology; Role of Consultants, Vendors and Users; Customization; Precautions; ERP: Post implementation Options; ERP Implementation Methodology; Guidelines for ERP Implementation; Project Management and Monitoring.

### Unit-IV - Business Modules in an ERP Package

Business Modules in an ERP Package, Finance, Manufacturing, Human Resources, Plant Maintenance, Materials Management, Quality Management, Sales and Distribution; Market Dynamics and Competitive Strategy.

### Unit-V- ERP Products and Future Trends

Various popular ERP Products like SAP, ORACLE, PEOPLE SOFT etc; ERP and E-Commerce; ERP and Internet; Future Directions in ERP; Case Studies.

## Books Recommended

- [1] Alexis Leon, ERP- Demystified, Tata McGraw-Hill Publishing Company Limited, 2000.
- [2] Vinod Kumar Garg & N.K. Venkitakrishnan, Enterprise Resource Planning-Concepts and Practice, Prentice Hall of India Private Limited, 1998.
- [3] Devan Parag, ERP, Excell Publishers New Delhi, 1999.
- [4] Kalkota Ravi & B. Whinston, Frontiers of E-Commerce, Addison Wesley, 2000.

**Learning Outcomes:** Upon completing the course, students will be able to:

- Understand the basic structure of ERP and identify implementation strategy used for ERP.
- Apply design principles for various business modules in ERP.
- Apply different emerging technologies for implementation of ERP.
- Acquire ERP concepts for real world applications.

### **List of Assignment in Enterprise Resource Planning Lab:**

1. Give case study 2/3 student of any organization. Make a report before-after situation at organization (Domain).
2. Make a list of Resource of the Selected Domain.
3. Categorize the Resource as per the function level process and Identify module of the domain.
4. Explain process of each module of the domain.
5. Perform Business process re-engineering (BPR) on selected Module.
6. Implement new system based on BPR.
7. Perform Impact analysis of the new system as the BPR.
  - a. Prepare study on JD Edward Tool.
  - b. Prepare study on Microsoft Dynamics.
8. Download any open source ERP Tool and prepare Installation Guideline and information about the Tool.
9. Make Data Entry in the Software in all modules & generate report.