

# GUJARAT TECHNOLOGICAL UNIVERSITY

## M. E. Mechanical (Industrial Engineering) (Branch Code - 46)

Year – II (Semester – III) (W.E.F. July 2013)

### Major Elective IV

#### 2. Enterprise Resource Planning (734603)

Sr. No.	Topic	Hours
1	<b>Introduction to ERP:</b> Common ERP myths, Evolution of ERP, Advantages, Characteristics, Process integration with ERP system, Implementation costs, Roadmap for successful ERP implementation.	4
2	<b>ERP Market and Vendors:</b> ERP market, ERP vendors, Service oriented architecture, ERP package features.	4
3	<b>Extended ERP services:</b> Defining Extended ERP, Supply chain Management (SCM) and ERP, ERP and Business Intelligence (BI), ERP and E-commerce.	6
4	<b>Business Process Re-engineering (BPR) and ERP:</b> Defining BPR, BPR Vs TQM, BPR and change management, approaches in BPR implementation, Methodologies for BPR implementation, BPR success/failure factors.	8
5	<b>Planning for ERP:</b> 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.	8
6	<b>Implementation of ERP:</b> Designs of ERP system, ERP implementation approach, ERP implementation life cycle, different phases of ERP implementation.	4
7	<b>Managing ERP projects:</b> Risk/Failure factors in ERP implementation, Example of ERP failure, Critical success factors, Complexities of ERP projects, Evaluating ERP projects.	4
8	<b>ERP: Going Live and post implementation:</b> Preparing to go live, Strategies for migration to new ERP system, Managing ERP after Go Live, Maintenance of ERP system.	6
9	<b>ERP, Internet and WWW – ERP II:</b> The internet explosion, ERP, Internet and WWW, ERP to ERP II, Best practices of ERP II.	4
10	<b>Future directions and Trends in ERP:</b> New markets, New channels, Easier communication tools, Business models, Need based applications, Expenditures, Reduction in implementation time, Market snap shots, Shifting revenue models.	8
		56

**Term Work:**

The term work shall be based on the topics mentioned above.

**Practical / Viva:**

The candidate shall be examined on the basis of term-work.

**Text Books:**

1. Enterprise Resource Planning, Ashim Raj Singla, Cengage Learning India Pvt. Ltd., New Delhi, 2008.
2. Enterprise Resource Planning, Alexis Leon, 2<sup>nd</sup> edition, Tata Mcgraw Hill Education Pvt. Ltd., New Delhi, 2008.

**References:**

1. 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.
2. Enterprise Resource Planning: Concepts and Practice, V.K. Garg.