

Enterprise Resource Planning

Course Objectives

This course throws light on the significance of Business Engineering and its link with Information Technology. Besides, it discusses the role of consultants, vendors and users, the process of customization, as well as the methodology and guidelines for ERP implementation.

Syllabus

Overview of Enterprise and Enterprise Resource Planning (ERP), ERP Implementation Life Cycle, ERP Modules Structure, Going Live and Post implementation and emerging trends in ERP.

Expected Outcomes

Upon completion of this course, the students will be able to:

1. Examine systematically the planning mechanisms in an enterprise, and identify all components in an ERP system and the relationships among the components.
2. Gain knowledge of ERP implementation cycle.
3. Understand core and extended modules of ERP.
4. Understand the business process of an enterprise
5. Understand the emerging trends in ERP developments

References

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4. Cedric Alexander, A Case Study Exploring the Effectiveness of ERP Integration Towards Managerial Performance, Proquest, Umi Dissertation Publishing, 2011
5. David L Olson, Managerial issues of ERP systems, McGraw-Hill Higher Education, 2003
6. Pramod Mantravadi M, ERP-Concept And Cases, ICFAI, 2003
7. Dimpi Srivastava and Aarti Batra, ERP Systems, I K International Publishing House Pvt. Ltd, 2010

8. Vinod Kumar Grag and N.K. Venkitakrishnan, ERP- Concepts and Practice, Prentice Hall of India, 2004
9. Sinha P. Magal and Jeffery Word, Essentials of Business Process and Information System, Wiley India, 2009
10. George Anderson, Charles D. Nilson, Tim Rhodes, Sachin Kakade, Andreas Jenzer, Bryan Kin, Jeff Davis, Parag Doshi, Veeru Mehta and Heather Hillary, SAP Implementation Unleashed: A Business and Technical Roadmap to Deploying SAP, SAMS, 2009
11. Jagan Nathan Vaman, ERP in Practice - ERP strategies for steering organizational competence and competitive advantage, McGraw-Hill Education (India), 2008
12. Alexis Leon, Enterprise Resource Planning, McGraw Hill Education India Private Limited, 2007
13. Mahadeo Jaiswal, Enterprise Systems and Business Process Management, Macmillan India, 2008

COURSE PLAN

1 Overview of Enterprise and Enterprise Resource Planning (ERP)

Enterprise - Business Functions and Business Processes, importance of Information: Characteristics of information; Types of information, Information System: Components of an information system; Different types of information systems; Management information system, Enterprise Resource Planning: Business modeling; Integrated data model

ERP- Origin and Need for an ERP System, Benefits of an ERP System, Reasons for the Growth of ERP Market.

2 (a) ERP Implementation Life Cycle

ERP Tools and Software, ERP Selection Methods and Criteria, ERP Selection Process, ERP Vendor Selection, ERP Implementation Lifecycle, Pros and cons of ERP implementation, Factors for the Success of an ERP Implementation;

ERP Vendors, Consultants, and Employees- Vendors- Role of the Vendor; Consultants: Types of consultants; Role of a Consultant, Employees; Role of employees; Resistance by employees; Dealing with employee resistance, Role of Top Management, Role of Implementation Partner.

First Internal Examination

2 (b) Different ERP Vendors - ERP Vendors, SAP-AG: Products and technology R/3 overview; SAP advantage, Baan Company , Oracle Corporation: Products and technology; Oracle Application; Vertical solutions, Microsoft Corporation, Ramco Systems, Systems Software Associates Inc. (SSA), QAD.

3 ERP Modules Structure

Finance, Sales and Distribution, Manufacturing and Production Planning- Material and Capacity Planning; Shop Floor Control; Quality Management; JIT/Repetitive Manufacturing; Cost Management ; Engineering Data Management; Engineering Change Control ; Configuration Management; Serialisation / Lot Control ;Tooling, Human Resource, Plant Maintenance- Preventive Maintenance Control; Equipment Tracking; Component Tracking; Plant Maintenance Calibration Tracking; Plant Maintenance Warranty Claims Tracking, Quality Management - Functions of Quality Management; CAQ and CIQ; Materials Management- Pre-purchasing; Purchasing; Vendor Evaluation; Inventory Management and Invoice Verification and Material Inspection.

Second Internal Examination

4 Going Live and Post implementation

Preparing to Go Live, Strategies for migration to New ERP system, Managing ERP system after Going Live; Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation, Roadmap for successful ERP.

5 Emerging Trends

Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems-web enabled, Wireless technologies, cloud computing; ERP to ERP II- Implementation of Organisation-Wide ERP, Development of New Markets and Channels, Latest ERP Implementation Methodologies, ERP and E-business, Market Snapshot, The SOA Factor.

Final Examination