SE501: BUSINESS SYSTEM ANALYSIS AND DESIGN

No of credits: 03

COURSE OBJECTIVES:

 Define the evolving role of business analysts in the information technology landscape.

 Provide a methodology to use the existing tools and techniques to manage the software requirements in terms of customer needs and expectations.

COURSE OVERVIEW:

With the enormous growth of IT industry, there is an increasing trend to separate the technical roles associated with the design of IT solutions from the customer focused roles. The role of a Business Analyst is that of a person who interfaces with the customers to understand their requirements. The curriculum explores the knowledge areas required for a Business Analyst's role in various organizations.

PREREQUISITES FOR THE COURSE:

Students are expected to have a basic knowledge of management information systems so that they will be in a position to appreciate the role of information technology in business.

They are also expected to have working knowledge of computers.

PEDAGOGY:

- **Class conduction methodology**: The main aim of the curriculum is to illustrate how the existing tools and techniques can be used effectively to ensure success in managing software requirements in terms of customer needs and expectations. As far as possible case based

learning will be used to demonstrate the application of conceptual frameworks to real life examples

- **Assignments & project work**: Since the subject involves a large number of concepts integrated into it, students will be asked to work on a lot of assignments to cover even the intricate details of the concepts involved. They will also be expected to undertake a project work which involves meeting a client ,gathering requirements ,preparing an SRS as well as a project layout to ensure that they get a practical exposure to the theoretical concepts covered in the curriculum

COURSE OUTLINE:

Module I-Introduction to the roles of a business analyst

Need for Business Analysis, Various roles of a business analyst, Facts that a business analyst should know about information and information systems, Determining information needs, Critical success factors, Working of CSF/KPI method, Case studies on csf/kpi

Module II – What a Business Analysts should know about software life cycles

The different phases of SDLC, Different process models, agile methodology,

Module III – Enterprise Analysis

The overall Business Environment, The business strategy pursued by the organization, Enterprise architectural patterns, Enterprise analysis using Zach Mann's framework and CSF method, Case studies

Module IV-Requirements Management

Requirements process and software engineering, Eliciting and gathering requirements, documenting requirements-IEEE guidelines, Case studies

Module V – Tools for modeling static and dynamic aspects of business processes

Data flow diagrams, Activity diagrams, Decision tables, Flow charts, Business rules diagram, Class diagrams, State transition diagrams ,Use case diagrams

Module VI-project work

Students are expected to go to a client's place gather the requirements and prepare an SRS.They are also expected to prepare a project plan depicting the various modules and also model the various processes and their interactions using appropriate diagrams

Evaluation Plan

Components	Weightage
Attendance	10%
Mid term	20%
Final Exam	40%
Project Work	20%
Assignments	10%

RECOMMENDED TEXT BOOK:

1) Business Analysis – Visualizing Business Processes and effective software solutions by Pradeep Hari Pendse,PHI

REFERENCE BOOKS:

1) Software Engineering, Ian Sommerville, 6th edition, Pearson Education Ltd, 2001

2) Unified Modeling language by Grady Booch,James RamBaugh and Ivar Jacobson

3) Object oriented Analysis and design by Ali Behrami

4) Software Engineering –A Practitioner's approach,Roger.S.Pressman,Tata-McGraw Hill, 4th edition

SE502: ENTERPRISE RESOURCE PLANNING

No. of credits: 03

COURSE OBJECTIVES:

- To enrich students with concepts and knowledge of Enterprise Resource Planning (ERP) & meet the need of today's growing economy which is guiding organizations to resort to ERP package as a solution to their information management problems.
- The course enables students to comprehend both the functional perspective and the interdependence and interaction which take place across functions in order to complete the core business processes of an organization. Students can gain an understanding of the complex relationships between various business functions, the role of ERP in automating these complex business processes and how these relationships effect business decision making in general

COURSE OVERVIEW:

The objective of the Program is to provide in-depth knowledge on ERP aimed at nurturing the managers to acquire better practices and skills accordingly to meet the tremendous growth of IT industry through ERP.

PREREQUISITES FOR THE COURSE:

Students are expected to have a basic knowledge of Information Systems and organizational processes so that they will be in a position to implement a structure in Organization. They are also expected to have working knowledge of computers

PEDAGOGY:

- **Class conduction methodology**: The main aim of the curriculum is to illustrate how the existing tools and techniques can be used effectively to ensure success in managing software requirements in terms of management , Organizational & end user needs and expectations As far as possible case based learning will be used to demonstrate the application of conceptual frameworks to real life examples
- **Assignments & project work**: Since the subject involves a large number of concepts integrated into it, students will be asked to work on a lot of assignments to cover even the intricate details of the concepts involved. They will also be expected to undertake a project work which involves meeting a client ,gathering requirements ,preparing an SRS, Skits ,GD as well as a project layout to ensure that they get a practical exposure to the theoretical concepts covered in the curriculum

COURSE OUTLINE:

Module – I

1. Introduction, Evolution of ERP Systems, Requirement, Risks & Benefits of ERP

Module – II

2. BPR, ERP & technology, BI, E-Com, E-Business
3. PLM
4. OLAP, DW & DM
5. SCM, CRM, ERP – Security

Module – III

6. ERP Challenges, ERP implementation Life Cycle
7. Requirement & implementation methodology, ERP project teams
8. Employee Resistance, Training & Education
9. Data migration, PM & monitoring, post implementation Actions, Success & failure factors

Module – IV

10. ERP in Action

Module – V

11. ERP Modules - Finance, Mfg, HR

12. ERP Modules - QM, Marketing, Sales & Services

Module – VI

13. Analyze ERP Market – 1 (SAP, Oracle, Microsoft ..)
14. Analyze ERP Market – 2 (Baan …Etc)

Module – VII

15. ERP Present & Future

Module – VIII

Case Studies

RECOMMENDED TEXT BOOK:

1. ERP demystified by Alexis Leon, 2006, Tata McGraw Hill (latest edition).

REFERENCE BOOKS:

1. ERP A Managerial Perspective, Sadagoan 1999, Mcgrawhill.
2. Manufacturing Planning & Control Systems-Thomas E. Vollmann, Bery & Whybark, Galgotia publications Second Edition 1998.
3. Production and Operations Management, Everette E.Adams & Ronald J, Prentice Hall of India
4. The Essence of Business Process Re-engineering, Joe Peppard & Philip Rowland, Prentice Hall of India, 1995.
5. 10 Minute Guide to SAP R/3, Simon Sharpe 1997, Prentice Hall of India.
6. SAP R/3 Implementation Guide: A Manager's guide to Understanding SAP; KLA, Inc. Bradley D. Hiquet Tech Media.

Evaluation Plan

Attendance	-	10%
Mid term	-	20%
End term	-	40%
Project Work	-	20%
Assignments	-	10%