

2 SOFTWARE SYSTEM ANALYSIS & DESIGN – IV SemesterCOURSE CONTENTS:Unit I

- Context of Systems analysis and design
 - a) Players in the game
 - b) Information systems building blocks
 - c) Information Systems Development

Unit II

- Systems Analysis
 - a) Systems Engineering
 - b) Analysis Concepts and Principles
 - c) Analysis Modeling
 - d) Process Modeling
 - e) Feasibility Analysis and the System Proposal

Unit III

- Systems Design
 - a) Application Architecture and Modeling
 - b) Database Design
 - c) Concepts and Principles
 - d) Design Methods

Unit IV

- Advanced Topics in Software Engineering
Formal Methods, Clean room Software Engineering, Component-Based Software Engineering, Client-Server Software Engineering, Web Engineering, Reengineering, Computer Aided Software Engineering, Future Directions.

- Software Testing Methods & Strategies

Unit V

- Object Oriented Software Engineering
 - a) Object Oriented Concepts
 - b) Object Oriented Analysis
 - c) Object Oriented Design
 - d) Object Oriented Testing
 - e) Object Oriented Metrics

Unit VI

- Advanced Topics in Software Engineering
Formal Methods, Clean room Software Engineering, Component-Based Software Engineering, Client-Server Software Engineering, Web Engineering, Reengineering, Computer Aided Software Engineering, Future Directions.

Suggested Reading:

1. Software Engineering : A Practitioner's Approach – R.S. Pressman (6th Edi.) (Mc Graw Hill)
2. Fundamentals of Software Engineering – Behforooz A. and F.Hudson -- 1996
3. Software Engineering – I. Sommerville – 1996
4. An Integrated approach to Software Engineering – Jalote P – 1997.