Course: 402 : Software Engineering – II

Course Code	402
Course Title	Software Engineering-II
Credit	3
Teaching per Week	3 Hrs
Minimum weeks per Semester	15 (Including Class work, examination, preparation etc.)
Review / Revision	June 2015
Purpose of Course	Computer software engineers apply the principles and techniques of computer science, engineering, and mathematical analysis to the design, development, testing, and evaluation of the software and the systems that enable computers to perform their many applications.
Course Objective	1. To make students understand steps to design the software. 2. To make students understand various ways to test software. 3. To make students aware of importance of documentation.
Pre-requisite	Basic knowledge of Software Engineering.
Course Out come	After learning this subject students will know the importance of designing, testing and documenting the software.
Course Content	**Unit 1. System Tools and Techniques** 1.1. Flow Diagram Of Application 1.1.1. System Outline Chart 1.1.2. System Flow Chart 1.1.3. Decision table and Decision Tree 1.1.4. Structured Chart(HIPO chart, Warnier –Orr chat) 1.2. Output Design 1.3. Input Design 1.4. UML Diagrams 1.4.1. Introduction 1.4.2. Class Diagram 1.4.3. Use Case Diagram **Unit 2. Information Systems Development** 2.1. Code Design 2.2. Test Data Preparations 2.3. Data Creation & Conversion **Unit 3. Software Testing** 3.1. Testing Fundamentals 3.2. Testing Process 3.3. White box and Black Box Testing 3.4. Unit Testing 3.5. Integrated Testing **Unit 4. Application Change Over** 4.1. Types of Changeover 4.2. User Training **Unit 5. System Documentation And Maintenance** 5.1. Documentation Essentials 5.2. Documentation Methods

	5.3. Developer and User Manuals 5.4. Review & monitoring Of Execution 5.5. Application Change Management
Reference Book	1. Software Engineering – A Practitioners' approach, R. S.Pressman – McGraw Hill 2. Software Engineering concepts, Richard Fairley – McGraw Hill 3. System Analysis & Design, Elias M – Galgotia Pub. 4. An integrated approach to software engineering, Pankaj Jalote – Narosa. 5. Software Engineering A Concise Study – Kelkar – PHI 6. System Analysis & Design & Introduction to S/W Engineering, Prof. S. Parthasarthy & Prof. B.W. Khalkar 7. Object Oriented Modeling and Designing with UML, Michael R Blaha & James R Rumbaugh - Pearson
Teaching Methodology	Class Work, Discussion, Self Study, Seminars and/or Assignments
Evaluation Method	30% Internal assessment. 70% External assessment.