



**C. U. Shah University, Wadhwan City**  
**Faculty of Computer Science**  
**Name of Program: Bachelor of Science ( Information Technology) Semester : II**  
**W.e.f. June-2014**  
**Teaching & Evaluation Scheme**

Sr. No	Subject Code	Subject Name	Teaching Hours/Week				Credits	Evaluation Scheme/Semester							
			Th	Tu	Pr	Total		Theory				Practical			Total Marks
								Sessional Exam		University Exam		Internal		Uni.	
								Marks	Hrs	Marks	Hrs	Pr	TW	Pr	
5	4CS02ISE1	SAD - SE	4	2	-	6	5	30	1.5	70	3	-	-	-	100

**Objectives:** This course designed to describe how to develop big projects / software from the scratch.

**Pre-requisites:** Students should be able to understand what software is.

Ch. No.	Chapter Name	Chapter Topics	Total Lectures
1.	Introduction	System, Sub-system, Types of Sub-System, Characteristic of System, Information System, Business System, System Analyst, Responsibilities of System Analyst, User, Types of User, SDLC, Categories of Information System: Transaction Processing System (TPS), Decision Support System (DSS), Management Information System (MIS)	9
2.	Requirement Analysis	Interview, Questionnaire, Record Review, Observation, Decision Tree, Decision Table, SRS Document	4
3.	Structured Analysis	Data Flow Diagram, Data Dictionary	2
4.	Input Design & Prototyping	Input Design Method, Types of Various Prototype Methods	5
5.	Design of Files	File, Sequential Method, Direct Method, Indexed Method	4
6.	Basics of Software Engineering	Bug, Error, Defect, Fault, Failure, Test Case, Test Plan, Test Script, Test Suite, Test Harness	5
7.	Software Engineering & Software Model	Software Engineering (Introduction), Sequential Model, RAD Model, Incremental, Prototype, Spiral	7
8.	Types of Software Testing	Testing (Introduction) Static Testing, Dynamic Testing	2
9.	Project Scheduling	Work Breakdown Structure, Gantt Chart, PERT Chart, Responsibility of Project Manager	5
10.	Project Management	4P's Principle, Quality Management, Risk Management	5
11.	Case Study	Project Definition, Feasibility Study, Designing DFD's, Coding, Validations and Testing, Reporting and Documentation	7
<b>Total::</b>			<b>55</b>

**Teaching Methodology:**

Revision, Paper Solving, Seminar, Expert Talk, MCQ Quiz, Viva Test

**Learning Outcomes:**

After the completion of the syllabus students should be able to develop minor project.

**Books Recommended:**

- 1. Analysis & Design of Information System – James A Senn ISBN:9780070140905**
- 2. Software Engineering – A practitioner’s Approach – Pressman ISBN:9780070701137**

**Reference Books:**

- 1. Fundamental of Software Engineering – Rajib Mall ISBN:9788120338197**
- 2. Software Engineering – Ian Sommerville Pearson ISBN: 9788131762165**
- 3. System analysis and methods - Whitten ISBN: 9780070634176**
- 4. Modern System Analysis and Design – Hoffer ISBN: 9788131761410**
- 5. Software Engineering Concepts – Richard Fairley ISBN: 9780007066278**