



C. U. SHAH UNIVERSITY

FACULTY OF: Computer Science
DEPARTMENT OF: M.Sc(CA & IT)
SEMESTER : III
CODE: 4CS03SAD1
NAME: System Analysis and Design

Sr · No	Subject Code	Subject Name	Teaching Hours/Week				Credits	Evaluation Scheme/Semester						Total Marks
			T H	T U	P R	TOT AL		Theory		Practical				
		System Analysis and Design	Sessional Exam		University Exam		Sessional Exam		University Exam					
			Mar ks	H rs	Mar ks	H rs	Mar ks	H rs	Total Marks					
1	4CS03SAD1			5	0	0	5	5	30	1.5	70	50	1.5	50

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.

Sr.No	Course Contents	No of Hours
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	14
3	Structured Analysis Data Flow Diagram, Data Dictionary	12
4	Input Design & Prototyping Input Design Method, Types of Various Prototype Methods	7
5	Design of Files File, Sequential Method, Direct Method, Indexed Method	7
6	Basics of Software Engineering Bug, Error, Defect, Fault, Failure, Test Case, Test Plan, Test Script, Test Suite, Test Harness	7
7	Software Engineering & Software Mode Software Engineering (Introduction), Sequential Model, RAD Model, Incremental, Prototype, Spiral	5
8	Types of Software Testing Testing (Introduction) Static Testing, Dynamic Testing	7



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9	Project Scheduling Work Breakdown Structure, Gantt Chart , PERT Chart, Responsibility of Project Manager	7
10	Project Management 4P's Principle, Quality Management, Risk Management	7

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