

Subject Code : 2CS1010403	Subject Title: SYSTEM ANALYSIS AND DESIGN
Pre-requisite :	-NONE-

Course Objective:

The course is intended to make students aware of various terminology used for system development life cycle. This course aims to develop different analysis and design techniques in students. Students are expected to design system using various designing tools.

Teaching Scheme(Hours per week)				Evaluation Scheme (Marks)								
Lecture	Tutorial	Practical	Credit	Theory				Practical				Total
				University Assessment		Continuous Assessment		University Assessment		Continuous Assessment		
				Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	Min. Marks	Max. Marks	
3	-	-	3	28	70	12	30	-	-	-	-	100

Subject Contents			
Sr. No	Topics	Total Hours	Weight (%)
1	Introduction of System: System definition, Element and General Model of System, Characteristics of System, Types of Systems ,Types of Users. System Development Strategy (SDLC). Data Flow Diagram: Symbols of DFD, Rules for to Draw aDFD, Physical and Logical DFD, Data Dictionary.	10	20
2	System Analysis: Role of System Analyst System Investigation : Fact Finding Techniques Tools for Documenting Procedures & Decision : Decision Tree, Decision Table, Structured English	9	20
3	Code Design: Principles of Code Design, Types of Code Form Design: Types of form, Principles of Form Design, Form Design Considerations, Form Design Steps. Input Design: Data Capture, Steps of Data Capture, , Data Validation. Output Design: Objective of Output, Principles of Output Design, Types of Output, Output Considerations, Output Media.	9	20
4	System Engineering: Design of Software, Software design and documentation tools – Structure Flowchart, HIPO Chart, Warnier /Orr Diagrams. Testing and Quality Assurance: Testing Strategies, Levels of Testing, Managing Quality Assurance, Training, Conversion	10	20
5	Case Studies : (Input, Output, DFD) - Inventory / Stock System - Library System - Online Shopping System - College Admission and Enrollment System - Student Attendance and Evaluation System	10	20

Course Outcomes:

At the end of this course, the students would be able to :

- Understand the role of systems analysis within various systems development.
- Develop an awareness of the different approaches to systems analysis.
- Understand the systems analyst's activities, and apply current tools and techniques.
- Learn various systems analysis approaches and explain their strengths and weaknesses

List of References:

1. System Analysis & Design, 5th Edition, - S.Parthasarthy & B.W.Khalkar, Master Academy Publication
2. Analysis & Design of Information Systems - James A. Senn Mc Graw Hill
3. System Analysis & Design, 2nd Edition, Elias M awad, Galgotia Publication
4. Introduction to System Analysis & Design, 3rd Edition, I.T Hawryszkiewicz3.

E-Resources/ Web Links:

- https://www.tutorialspoint.com/system_analysis_and_design/index.htm
- <http://www.freetutes.com/systemanalysis/>
- <https://www.geeksforgeeks.org/system-design-tutorial/>