C. U. SHAH UNIVERSITY
Wadhwan City

FACULTY OF: - Computer Science
DEPARTMENT OF: - Master of Computer Applications
SEMESTER: -IV
CODE: - 5CS04MCD1
NAME: – COMPUTER AIDED ANALYSIS & DESIGN OF SYSTEM (CAD)

Teaching and Evaluation Scheme:-

Subject Code	Name of the Subject	Teaching Scheme (Hours)				Credits	Evaluation Scheme							
							Theory				Practical (Marks)			
							Sessional Exam		University Exam		Internal		University	Total
		Th	Tu	Pr	Total		Marks	Hrs	Marks	Hrs	Pr/Viva	TW	Pr	
5CS04MCA1	COMPUTER AIDED ANALYSIS & DESIGN OF SYSTEM (CAD)	4	0	0	4		30	1.5	70	3	---	---	---	100

Objectives:-

- This course covers the different phases of systems development focusing on analysis and design. Students will learn the rudiments of systems development through a feasibility study.
- To provide an understanding of the role of systems analysis and design within various systems development lifecycles.
- To develop an awareness of the different approaches that might be taken to systems analysis and design.
- To understand the activities of the systems analyst and systems designer, and apply some current techniques.

Prerequisite:-

- None

Course Outline:-

Sr. No.	Course Content	Hours
1	**System Analysis Fundamentals** System, Types of Systems, Role of the System Analyst, Systems Development Life Cycle, Interviewing,	5
2	**Analysis Modeling** Data Flow Approach, Developing Data Flow Diagrams, Logical and Physical Data Flow Diagrams, Data Dictionary, Creating Data Dictionary, Using Data Dictionary, Decision Tables, Decision Trees	14

3	**Object Modeling Concepts** Introduction, Modeling as a design technique, Class Modeling-Object and Classes, Association, Generalization, Metadata, Constraints, Derived data,State Modeling- State, Transitions and Conditions, State Diagrams, Nested state diagrams , Nested States,	10
4	**Basic Structural Modeling** Classes, Relationships, Common Mechanisms, Diagrams, Class Diagrams	5
5	**Behavioral Modeling** Interactions, Use Cases, Use Case Diagrams, Interaction Diagrams, Activity Diagrams	14

Learning Outcomes:

Upon completion of this course, the student should be able to:

- Perform needs analysis and Translate business requirements into systems models.

- Design solutions for business requirements.

- Make a proposal to a variety of business organization and to understand the importance of their system.

- Apply interviewing and data gathering techniques and best practices.

- Present the result of systems analysis and be able to learn how to compare the existing system to the proposed system.

- Design a proposed system and present its feasibility.

- Demonstrate the team and interpersonal skills.

Teaching & Learning Methodology:

- Using Whiteboard & Multimedia or OHP

Books Recommended:

1. System Analysis and Design, **Kendall & Kendall**, Eastern Economy Edition, Eighth Edition
2. Analysis, Design and Implementation of an Information System, **Henry Lucas,** McGraw Hill
3. Analysis and Design of an Information System, **James Senn,** McGraw Hill
4. Management Information Systems A Managerial Perspective, **Uma Gupta,** Galgotia Publications
5. Information System Concept for Management, **H. Lucas,** McGraw Hill.