CASE TOOLS LABORATORY

V Semester: IT								

Course Code	**Category**	**Hours / Week**			**Credits**	**Maximum Marks**		
AIT103	**Foundation**	**L**	**T**	**P**	**C**	**CIA**	**SEE**	**Total**
		-	-	3	2	30	70	100

Contact Classes: Nil	**Tutorial Classes: Nil**	**Practical Classes: 36**	**Total Classes: 36**

OBJECTIVES:

The course should enable the students to:
I.   Understand the concept of modeling and mechanism involved in UML.
II. Learn the classes and different types of relationships in classes, objects and terms related to diagrams.
III. Examine fundamental object-oriented analysis and design techniques.
IV. Apply design patterns for viewing a system as a set of procedures.
V.   Prepare case studies for analyzing modeling techniques.

COURSE LEARNING OUTCOMES (CLOs):
CLO1: Demonstrate the Conceptual model of UML and SDLC
CLO2: Define classes modeling techniques and instances modeling techniques.
CLO3: Analyze the Objects and Classes are required for the development of software system.
CLO4: Describe interaction diagrams and their modeling techniques.
CLO5: Creation of interaction diagram that model the dynamic aspects of a software system.
CLO6: Use case and activity studies to illustrate the analysis and design concepts.
CLO7: Demonstrate activity diagram and their modeling techniques.
CLO8: Demonstrate component and deployment diagram.
CLO9: Identify, analyze, and model behavioral concepts of the system and also know the importance of
        events and signals and their modeling techniques.
CLO10: Analyze and understand the uses of process and threads and time and space to model and
         development of a system.
CLO11: Demonstrate state machines and state chart diagrams and their modeling techniques
CLO12: Illustrate the uses of component and deployment diagram and their modeling techniques.

LIST OF EXPERIMENTS

Week-1	**INTRODUCTION TO UML**
Study of UML	
Week-2	**ON LINE PURCHASE SYSTEM**
Create a UML model for On line Purchase System	
Week-3	**LIBRARY MANAGEMENT SYSTEM**
Create a UML model for Library Management System	
Week-4	**E-TICKETING**

Create a UML model for E-Ticketing	
Week-5	**QUIZ SYSTEM**
Create a UML model for Quiz System	
Week-6	**STUDENT MARK ANALYZING SYSTEM**
Create a UML model for Student Mark Analyzing System	
Week-7	**E-MAIL CLIENT SYSTEM**
Create a UML model for E-Mail Client System	
Week-8	**TELEPHONE PHONE DIALING**
Create a UML model for Telephone Phone Dialing	
Week-9	**POINT OF SALE**
Create a UML model for Point of sale	
Week-10	**WORKING COMPANY**
Create a UML model for a Working Company	
Week-11	**ATM TRANSACTIONS**
Create a system to design Bank ATM Transactions and generate code by using MS-Access as back end and VB as the front end.	
Week-12	**STUDENT MARK ANALYSIS**
Create a system to design Student mark analysis system and generate code by using MS-Access as back end and VB as the front end.	

Reference Books:

1. Grady Booch, James Rumbaugh, Ivar Jacobson, "The Unified Modeling Language User Guide", Pearson Education, 2nd Edition, 2004.
2. Craig Larman, "Applying UML and Patterns: An Introduction to Object Oriented Analysis and Design and Iterative Development", Pearson Education, 3rd Edition, 2005.

Web References:

1. www.uml.org
2. www.holub.com/goodies/uml/
3. www.uml-diagrams.org/
4. https://www.utdallas.edu/.../UML.../Rumbaugh--UML_2.0_Reference_C...

SOFTWARE AND HARDWARE REQUIREMENTS FOR A BATCH OF 36 STUDENTS:

HARDWARE: Desktop Computer Systems: 36 (nos)
SOFTWARE: Application Software: Rational Rose