

III YEAR VI SEMESTER
Elective
Paper VII(C) OBJECT ORIENTED ANALYSIS AND DESIGN

UNIT-I

Introduction to UML: Importance of modeling, principles of modeling, Object oriented modeling, Conceptual model of the UML, Architecture, Software Development Life Cycle.

UNIT-II

Basic Structural Modeling: Classes, Relationships, Common Mechanisms, and Diagrams. Advanced Structural Modeling: Advanced classes, Advanced relationships, Interfaces, Types and Roles, Packages.

UNIT-III

Class & Object Diagrams: Terms, Concepts, Modeling techniques for Class & Object Diagrams. Basic Behavioral Modeling-I: Interactions, Interaction diagrams.

UNIT-IV

Basic Behavioral Modeling-II: Use cases, Use case Diagrams, Activity Diagrams. Advanced Behavioral Modeling: Events and signals, State machines, Processes and Threads, Time and space, State chart diagrams.

UNIT-V

Architectural Modeling: Component, Deployment, Component diagrams and Deployment diagrams. Case Study: The Unified Library application.

Text Books:

1. Grady Booch, James Rumbaugh, Ivar Jacobson: The Unified Modeling Language User Guide, Pearson Education.
2. Hans-Erik Eriksson, Magnus Penker, Brian Lyons, David Fado: UML 2 Toolkit, WILEY-Dreamtech India Pvt. Ltd.

Reference Books:

1. Meilir Page-Jones: Fundamentals of Object Oriented Design in UML, Pearson Education.
2. Pascal Roques: Modeling Software Systems Using UML2, Wiley- Dreamtech India Pvt. Ltd.