

OBJECT ORIENTED ANALYSIS AND DESIGN

UNIT- I:

Introduction to UML: The meaning of Object-Orientation, object identity, encapsulation, information hiding, polymorphism, genericity, importance of modeling, principles of modeling, object oriented modeling, conceptual model of the UML, Architecture.

UNIT-II:

Basic structural Modeling: Classes, relationships, common mechanisms, diagrams, Advanced structural modeling: advanced relationships, interfaces, types & roles, packages, instances.

Class & object diagrams: Terms, concepts, examples, modeling techniques, class & Object diagrams.

UNIT-III:

Collaboration diagrams: Terms, Concepts, depicting a message, polymorphism in collaboration diagrams, iterated messages, use of self in messages.

Sequence diagrams: Terms, concepts, differences between collaboration and sequence diagrams, depicting synchronous messages with/without priority call back mechanism broadcast message.

UNIT- IV:

Behavioral Modeling: Interactions, use cases, use case diagrams, activity diagrams.

Advanced Behavioral Modeling: Events and signals, state machines, processes & threads, time and space, state chart diagrams.

UNIT-V:

Architectural Modeling: Terms, concepts, examples, modeling techniques for component diagrams and deployment diagrams.

TEXTBOOKS:

1. The Unified Modeling Language User Guide, Grady Booch, Rumbaugh, Ivar Jacobson, PEA
2. Fundamentals of Object Oriented Design in UML, Meilir Page- Jones, Addison Wesley

REFERENCEBOOKS:

1. Head First Object Oriented Analysis & Design, McLaughlin, SPD O'Reilly, 2006
2. Object oriented Analysis & Design Using UML, Mahesh, PHI
3. The Unified Modeling Language Reference Manual, 2/e, Rumbaugh, Grady Booch, etc., PEA
4. Object Oriented Analysis & Design, Satzinger, Jackson, Thomson
5. Object Oriented Analysis Design & implementation, Dathan., Ramnath, University Press
6. Object Oriented Analysis & Design, John Deacon, PEA
7. Fundamentals of Object Oriented Analysis and Design in UML, M Pages-Jones, PEA
8. Object-Oriented Design with UML, Barclay, Savage, Elsevier, 2008