

## 2.9 30327 OBJECT ORIENTED PROGRAMMING

### UNIT-1 OOAD BASICS

Introduction – Overview of object oriented system development – Object basics-The Unified Process – Modeling concepts – Modeling as a design technique – Analysis and modeling – UML diagrams – Use case Modeling – Class modeling – State modeling – Interaction Modeling

### UNIT-2 REQUIREMENTS & MORE MODELING

Object Constraint Language - Inception – Evolutionary Requirements– Domain Models – System Sequence Diagrams – Operation Contracts.

### UNIT-3 DESIGN AND PRINCIPLES OF DESIGN

Requirements to Design –Design Patterns – Logical Architecture – Package diagram – Design patterns – Model, View, Control pattern – Detailed design – Object design with GRASP pattern – Detailed class diagram with Visibility.

### UNIT-4 MAPPING TO CODE

Mapping designs to code – Test Driven development and refactoring – UML Tools and UML as blueprint.

### UNIT-5 MORE PATTERNS

More Patterns – Analysis update – Objects with responsibilities – Applying design patterns – Architectural Analysis – Logical Architecture Refinement – Package Design –Persistence framework with patterns.

### Reference Books:

1. Michael Blaha and James Rumbaugh, “Object-oriented modeling and design with UML”, Prentice-Hall of India, 2005.
2. Craig Larman. “Applying UML and Patterns – An introduction to Object-Oriented Analysis and Design and Iterative Development”, 3rd ed, Pearson Education, 2005.
3. Ali Bahrami, “Object Oriented Systems Development”, McGraw-Hill, 1999.
4. Booch, Grady. Object Oriented Analysis and Design. 2nd ed. Pearson Education 2000.