OBJECT ORIENTED ANALYSIS AND DESIGN   **3 0 0 3**

OBJECTIVE

Gives and understanding of OOAD basics, UML diagrams, system modeling, design based on requirements, converting design to code, and design patterns.

UNIT – I   OOAD BASICS   10

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 – II   REQUIREMENTS & MORE MODELING   7

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

UNIT – III   DESIGN AND PRINCIPLES OF DESIGN   10

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 – IV   MAPPING TO CODE   8

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

UNIT – V   MORE PATTERNS   10

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

                                                    TOTAL : 45

TEXT 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.

REFERENCES:

1. Ali Bahrami, "Object Oriented Systems Development", McGraw-Hill, 1999.
2. Booch, Grady. Object Oriented Analysis and Design. 2nd ed. Pearson Education 2000.
3. Fowler, Martin. UML Distilled. 3rd ed. Pearson Education. 2004.
4. Lunn, Ken. Software development with UML. Palgrave Macmillan. 2003.
5. O'Docherty, Mike. Object-Oriented Analysis & Design. Wiley. 2005.