

SYLLABUS : AS PER AUTONOMOUS REGULATION 2015 W.E.F 2015-2016

15UCS502 OBJECT ORIENTED ANALYSIS AND DESIGN L T P C
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COURSE OBJECTIVES:

- To familiarize the OOAD concepts and system design using UML diagrams.
- To explain the fundamental design patterns for object-oriented analysis.
- To learn the techniques of conceptual UML modeling.

UNIT I UML DIAGRAMS 10

Introduction to OOAD - Unified Process - UML diagrams - Use Case - Class Diagrams - interaction Diagrams - State Diagrams - Activity Diagrams - Package, component and Deployment Diagrams.

UNIT II DESIGN PATTERNS 10

GRASP: Designing objects with responsibilities - Creator - Information expert - Low Coupling - High Cohesion - Controller - Design Patterns - creational - factory method - structural - Bridge - Adapter - Behavioural – Strategy - observer - Applying GoF design patterns

UNIT III DYNAMIC MODELING 10

Domain Models - Finding conceptual classes and description classes - Domain model refinement - Finding conceptual class Hierarchies - Logical architecture and UML package diagrams - Logical architecture refinement - Mapping design to code - OO Testing.

TOTAL : 30 Periods

COURSE OUTCOMES:

After the successful completion of this course, the student will be able to

- Utilize Unified Modeling Language for software project design. (Apply)
- Apply design patterns for software development. (Apply)
- Employ dynamic modeling concepts in software system design. (Apply)

TEXT BOOKS:

1. Craig Larman, "Applying UML and Patterns: An Introduction to object- oriented Analysis and Design and iterative development", Third Edition, Pearson Education, 2005.
2. Micheal Blaha, James Rumbaugh, "Object-Oriented Modeling and Design with UML", Second Edition, Prentice Hall of India Private Limited, 2007.

REFERENCE BOOKS:

1. Grady Booch, "Object Oriented Analysis and Design with application", Pearson Education, Third Edition, 2012.
2. Martin Fowler, UML Distilled, PHI/Pearson Education, 2002.
3. Stephen R. Schach, Introduction to Object Oriented Analysis and Design, Tata McGraw-Hill, 2003

