

Object Oriented Analysis and Design

Course Code	20CS4501C	Year	II	Semester	I
Course Category	PEC	Branch	CSE	Course Type	Theory
Credits	3	L-T-P	3-0-0	Prerequisites	Software Engineering
Continuous Evaluation :	30	Semester End Evaluation:	70	Total Marks:	100

Course Outcomes

Upon successful completion of the course, the student will be able to		
CO1	Understand the basic concepts of object-oriented analysis and design.	L2
CO2	Apply UML Structural Modeling concepts to develop class diagrams for a given Application.	L3
CO3	Apply UML concepts for developing behavioral diagrams and Architectural diagrams.	L3
CO4	Analyze the given case study and develop appropriate UML diagrams	L4

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	√													
CO2	√													
CO3													√	
CO4		√				√			√	√				

Syllabus		Mapped CO
Unit No.	Contents	
I	Introduction to UML: Importance of modeling, principles of modeling, object oriented modeling, conceptual model of the UML, Architecture, and Software Development Life Cycle.	CO1
II	Basic Structural Modeling: Classes, Relationships, common Mechanisms, and diagrams. Class & Object Diagrams: Terms, concepts, modeling techniques for Class & Object Diagrams.	CO1,CO2,CO4
III	Basic Behavioral Modeling: Interactions, Interaction diagrams, Use cases, Use case Diagrams, Activity Diagrams.	CO1,CO3,CO4
IV	Advanced Behavioral Modeling: Events and signals, state machines, processes and Threads, time and space, state chart diagrams.	CO1,CO3,CO4
V	Architectural Modeling: Component, Deployment, Component diagrams and Deployment diagrams. Case Study: The Unified Library application.	CO1,CO2,CO3,CO4

Learning Resources

Text Books

1. The Unified Modeling Language User Guide, Grady Booch, James Rum Baugh, Ivar Jacobson, Second Edition, 2005, Pearson Education.

References

1. Object-Oriented Analysis and Design with Applications, Grady Booch Robert A. Maksimchuk Michael W. Engle Bobbi J. Young, Ph.D. Jim Conallen Kelli A. Houston ,Third Edition, 2007, Pearson Education.
2. UML 2 and the Unified Process: Practical Object-Oriented Analysis and Design, Jim Arlow, Ila Neustadt. 2nd edition, 2005, Addison-Wesley.
3. Applying UML Advanced Application, Rob Pooley, Pauline Wilcox , Elsevier,1st Edition 2003, Rob Pooley, Pauline Wilcox.

e-Resources & other digital material

1. <http://nptel.ac.in/courses/122105022/27A>.
2. http://www.csm.ornl.gov/~sheldon/public/sheldonf_auction.pdf