

ELECTIVE: OBJECT ORIENTED ANALYSIS AND DESIGN

Semester	Subject Code	Category	Lecture Hrs		Theory Hrs		Practical		Credits
			Per week	Per Sem	Per week	Per Sem	Per week	Per Sem	
VI		Elective (Theory)	6	90	6	90	0	0	4

COURSE OBJECTIVE

The course provides Understand the importance and basic concepts of object oriented modelling, Specify, analyze and design the use case driven requirements for a particular system.

COURSE OUTCOME

successful completion of the course, students will be able to__

CO Number	CO Statement	Knowledge Level (K1-K4)
CO1	Analyse, design, document the requirements through use case driven approach.	K2,K4
CO2	Identify, analyse, and model structural and behavioral concepts of the system	K2,K3 & K4
CO3	Design the process into various scenarios and applications	K2 & K3
CO4	Apply the concepts of architectural design for deploying the code for software.	K3 & K4
CO5	Continuous testing of process and debugging principles	K2,K3 & K4

Knowledge Level – K1-Remember, K2- Understand, K3-Apply, K4-Analyze

Mapping with Programme Outcome

COS	PO1	PO2	PO3	PO4	PO5	PO6
CO1	S	S	S	M	S	M
CO2	S	S	M	S	S	M
CO3	S	S	S	M	S	S

CO4	S	S	S	S	M	S
CO5	S	S	S	S	M	S

S- Strong;

M- Medium;

L- Low

SYLLABUS

UNIT I – Overview of OOS Development

15 hrs

Object Orientation – System development – Review of objects – inheritance – Object relationship – Dynamic binding – OOSD life cycle – Process – Analysis – Design– prototyping – Implementation – Testing- Overview of Methodologies.

UNIT II – Object Oriented Methodologies

14 hrs

OMT – Booch methodology, Jacobson methodology – Patterns – Unified approach – UML – Class diagram – Dynamic modeling.

UNIT III – Use case Models

15 hrs

Use case model – Creation of classes – Noun phrase approach – responsibilities – Collaborators – Object relationships – Super-Sub class – Aggregation.

UNIT IV – Object Oriented Design

16 hrs

Object oriented Design axioms – Class visibility – Refining attributes – Methods–Access layer – Object oriented DBMS – Table – class mapping view layer

UNIT V – SOFTWARE QUALITY ASSURANCE

15 hrs

Quality assurance testing – Inheritance and testing – Test plan – Usability testing User satisfaction – Testing.

Distribution of Marks: Theory 95% and Problem 5%

TEXT BOOKS

S. NO	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1	Ali Bahrami	Object Oriented Systems Development	McGraw Hill International Edition	1999

REFERENCE BOOK

S. NO	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1	Grady Booch	Object Oriented Analysis and Design	Person Education-2 nd Edition	2011
2	Carol Britton and Jill Doake	Object Oriented System Development: A Gentel Introduction	Paperback	2012
3	David West and Brett McLaughlin	Head First Object Oriented Analysis and Design	Kindle Edition	2011
4	Grady Booch, Robert A.Maksimchuk, MichaelW.Engel, and Bobbi J. Young	Object-Oriented Analysis and Design with Applications (3rd Edition)	Pearson	2007

5	James Martin and James J. Odell	Principles of Object- Oriented Analysis and	Pearson	2008
6	Grady Booch	Object Oriented Analysis and Design with Applications	Wesley	1993
7	Noushin Ashrafi and Hessam Ashrafi	Object Oriented Systems Analysis and Design	Prentice hall	2008
8	Simon Bennett, Steve McRobb, and Ray Farmer	Object-oriented Systems Analysis and Design Using UML	McGraw Hill	2005

WEB RESOURCES

https://www.tutorialspoint.com/object_oriented_analysis_design/

<https://www.startertutorials.com/uml/category/ooad>

TEACHING METHODOLOGY

- Class room teaching
- Group discussions
- Seminars
- Smart Class room
- Chart/Assignment
- Simulation Model

SYLLABUS DESIGNER

1. Mrs. G.SANGEETHALAKSHMI,

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Professor and

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2. Mrs. S.KALAISELVI, Assistant Professor, Department of
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