

M.Tech(IT) : Second Semester
Paper Code: MT21
Paper Name: Object Oriented Software Engg. With UML

SYLLABUS

1. Software Engineering Concepts

S/w Engineering Concepts, S/W Engineering Development Activities, Software reusability and re-engineering concepts, Standards for Developing Life Cycle Models, Managing Activities and Products, Software Process and Project Management.

2. Object Methodology and Requirement Elicitation

Introduction to OO Methodology, Overview of Requirement Elicitation, Requirement Model-Actors and Use Cases, Requirements Elicitation Activities.

3. OOA and Design Models

Analysis Concepts and Activities, Analysis Model, Design Concepts and Activities, Design Model & Implementation Process.

4. Design with UML

Models and modeling, Methodologies, Basic Structural Modeling, Class Diagrams and Relationships, Packages, Object Diagrams and Representations, Use-case and Interaction Diagrams, Components, Patterns and Frameworks

5. Testing OO Systems and Quality Assurance

An overview of Testing, Testing Activities and Techniques, Managing Testing, OO Metrics and Quality Models, Software reliability

6. Software Agents

Agents-oriented vs. OO Software development, Design methods, Multiagent Systems, Use of UML, Agent methodologies in the industry, component based software engineering.

REFERENCE BOOKS:-

- 1) Mark Priestley, "Practical Object-Oriented Design with UML", Tata McGraw-Hill
- 2) B.Bruegge and A.Dutiot, "Object-Oriented Software Engineering", Pearson Education.
- 3) Ivar Jacobson et al, "Object-oriented Software Engineering", Addison Wesley.