SOFTWARE ENGINEERING LAB SYLLABUS

Module 1: Analysis and Identification of Suitable Process Models

- Overview of different process models
- Selection of the appropriate model based on project requirements

Module 2: Work Breakdown Structure (WBS) and Estimations

- Types of WBS: Process-based, product-based, geographic-based, and role-based
- Estimation techniques and planning

Module 3: Requirement Modelling - Structural Modelling

- Entity Relationship Diagram (ERD) for requirement representation

Module 4: Requirement Modelling - Functional Modelling

- Context Flow Diagrams (CFD) and Data Flow Diagrams (DFD)

Module 5: Requirement Modelling - Behavioral Modelling

- State Transition Diagrams (STD) for behavior representation

Module 6: Object-Oriented Design - Use Case and Class Models

- Use case diagrams and class models in object-oriented design

Module 7: Object-Oriented Design - Interaction Models

- Sequence and collaboration diagrams for interactions between objects

Module 8: Object-Oriented Design - Package, Component, and Deployment Models

- Design of package, component, and deployment models

Module 9: Design and Demonstration of Test Cases

- Functional and non-functional testing using open-source tools
- Test case design methodologies

Module 10: Storyboarding and User Interface Design Modelling

- Techniques for storyboarding
- User interface design and prototyping