

**PVP SIDDHARTHA INSTITUTE OF TECHNOLOGY, KANURU, VIJAYAWADA
(AUTONOMOUS)
INFORMATION TECHNOLOGY
SOFTWARE ENGINEERING LAB**

Course Code	20IT3351	Year	II	Semester	I
Course Category	PC Lab	Branch	IT	Course Type	Lab
Credits	1.5	L-T-P	0-0-3	Prerequisites	--
Continuous Internal Evaluation	15	Semester End Evaluation	35	Total Marks	50

Course Outcomes

Upon successful completion of the course, the student will be able

CO1	To demonstrate requirement gathering techniques to analyze the problem and prepare SRS.	L4
CO2	To investigate a real-world problem using modern modelling tools.	L3
CO3	To estimate the cost, size, effort on a defined problem.	L3
CO4	To formulate test cases based on requirements and design and performing testing.	L3

CO/ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3							3	3			3	3
CO2	3		3		3				3	3			3	3
CO3	3	3							3	3			3	3
CO4	3				3				3	3			3	3

Course Content

For the below scenarios apply the experiments:

Case Study 1: Banking System

Case Study 2: Business Application

Expt. No.	Contents	Mapped CO
1	Performing Problem Analysis.	CO1
2	Do the Requirement Analysis and Prepare SRS.	CO1
3	Identification of actors, use cases and construction of use case diagram.	CO2
4	Identification of classes, attributes and relationships of classes.	CO2
5	Construction of class diagram.	CO2
6	Using COCOMO model estimate effort.	CO3
7	Calculate effort using FP oriented estimation model.	CO3
8	Design of Test cases based on requirements and design.	CO4
9	Perform black box testing using a testing tool.	CO4

Learning Resources**Text Books**

1. Roger S. Pressman, *Software engineering-A practitioner's Approach*, McGraw-Hill International Edition, Seventh edition, 2009.
2. Grady Booch , James Rumbaugh , Ivar Jacobson- *The Unified Modeling Language User Guide*, Pearson education, Second edition, 2005.

References

1. Ian Sommerville, *Software engineering*, Pearson education Asia, Tenth edition, 2017

e-Resources and other Digital Material

1. <https://nptel.ac.in/courses/106/105/106105182/>
2. https://nptel.ac.in/courses/106/105/106105224