

Branch Name:	Computer Engineering / Information Technology
Program Code:	ET103 / ET05
Course Title:	Software Engineering Practical
Course Code:	2ET1030501P
Pre-requisite Course:	Object Oriented Programming fundamental, UML. Though, awareness about software systems, computer fundamentals would be beneficial.

Course Objectives: To empower students with the necessary skills and knowledge for workplace in the field of Software Engineering. To provide skills and knowledge to students to being able to work as team member or team leaders. To provide the skills of applying software engineering methodologies on a predefined project using the latest technologies.

Teaching and Examination Scheme:

Credit	Teaching Scheme Hours per week				Evaluation Scheme (Marks)								
					Theory (Marks)				Practical (Marks)				Total (Marks)
	SEE		CCA		SEE		CCA						
	L	T	P	Total	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1	-	-	2	2	-	-	-	-	10	25	10	25	50

Course Contents:

Unit	Details	Contact Hours
1.	Study about various software development models.	2
2.	Gathering and analyzing requirements of any two software system.	3
3.	Prepare SRS for a software system.	2
4.	Design activity and use case diagram for your system.	2
5.	Design Data dictionary for your system.	2
6.	Prepare class diagram and ER diagram for a system.	2
7.	Design Data flow diagram for system.	2
8.	Study about various testing techniques.	3
9.	Study about : Flight Control System.	3
10.	Study about : Ambulance Dispatching System.	3

Reference Books:

1. Object–Oriented Modelling and Design with UML by Rumbaugh, Blaha
2. Ian Sommerville, Software engineering, Pearson education Asia
3. Software Engineering Fundamentals by Ali Behhforoz & Frederick Hudson OXFORD
4. John M Nicolas, Project Management for Business, Engineering and Technology, Elsevier

Course Outcomes:

At the end of the course, students will be able to:

Course Outcomes	Description	Bloom's Taxonomy Level
CO1	Apply the process to be followed in the software development life-cycle models.	Understanding (2), Applying (3)
CO2	Implement communication, modeling, construction & deployment practices in software development.	Understanding (2), Applying (3)
CO3	Explain the concepts of various software testing methods & be able to apply appropriate testing approaches for development of software.	Understanding (2), Applying (3)
CO4	Apply the concepts of project management & planning.	Understanding (2), Applying (3)

Mapping of CO with PO and PSO

Course Outcomes	Program Outcomes (POs)												Program Specific Outcomes(PSOs)			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CO1	H	M	H		M				H	H	L	H				
CO2	H	M	M		M				H	H	L	H				
CO3	H	M	H		M				H	M	L	M				
CO4	H	M	M		M				H	L	H	M				

H: High, M: Medium, L: Low