PARVATHANENI BRAHMAYYA
SIDDHARTHA COLLEGE OF ARTS & SCIENCE
Autonomous
Siddhartha Nagar, Vijayawada–520010
Re-accredited at 'A+' by the NAAC

Course Code				**23BCMAP234**			
Title of the Course				**SOFTWARE ENGINEERING LAB**			
Offered to: (Programme/s)				**B.C.A. Hons.**			
L	**0**	**T**	**0**	**P**	**2**	**C**	**1**
Year of Introduction:		**2024-25**		**Semester:**			**3**
Course Category:		**Major**		**Course Relates to:**		**Global/National/Regional/Local**	
Year of Revision:				**Percentage:**			
Type of the Course:				**Employability**			
Crosscutting Issues of the Course :							
Pre-requisites, if any							

Course Description:

This course provides basic an opportunity to practically implement various OOSE concepts using various case studies. This course enables students to analyse and design the system in object oriented manner using Eclipse tool.

ourse Aims and Objectives:

S.NO	COURSE OBJECTIVES
1	Understand the basics and planning of a software project
2	Analyse software cost estimation and its techniques
3	Software Design
4	User interface design
5	Software testing and validations

Course Outcomes

At the end of the course, the student will be able to…

CO NO	COURSE OUTCOME	BTL	PO	PSO
CO1	Understand the requirements of the software projects.	**K2**	**1,2,7**	**2**
CO2	Ability to analyze software requirements with existing tools	**K4**	**1,2,7**	**2**
CO3	Apply different testing methodologies	**K3**	**1,2,7**	**2**
CO4	Understand and apply the basic project management practices in real life projects	**K2, K4**	**1,2,7**	**2**
CO5	Apply on software projects	**K4**	**1,2,**	**2**

			7	

For BTL: K1: Remember; K2: Understand; K3: Apply; K4: Analyze; K5: Evaluate; K6: Create

CO-PO MATRIX									
CO NO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PSO1**	**PSO2**
CO1	**2**	**3**					**1**		**1**
CO2	**2**	**3**					**3**		**2**
CO3	**3**	**3**					**3**		**3**
CO4	**2**	**3**					**2**		**2**
CO5	**3**	**3**					**3**		**2**

Use the codes 3, 2, 1 for High, Moderate and Low correlation Between CO-PO-PSO respectively

Course Structure

This lab list covers the key areas of a Software Engineering course, providing hands-on practice with Eclipse UML2/any other Open Source Tools

Design Following Systems in Object Oriented Approach using UML with open source tools (Eclipse UML2 or any other Open source tools):

1. Online Examination System.
2. Online Railway Reservation.
3. Library Maintenance System.
4. Any E-Commerce Portal.
5. Biometric Attendance System.

1. Write down the problem statement for a suggested system of relevance.
2. Do requirement analysis and develop Software Requirement Specification Sheet (SRS) for suggested system.
3. To perform the function oriented diagram: Data Flow Diagram (DFD) and Structured chart.
4. To perform the user‘s view analysis for the suggested system: Use case diagram.
5. To draw the structural view diagram for the system: Class diagram, object diagram.
6. To draw the behavioral view diagram : State-chart diagram, Activity diagram
7. To perform the behavioral view diagram for the suggested system : Sequence diagram, Collaboration diagram
8. To perform the implementation view diagram: Component diagram for the system.
9. To perform the environmental view diagram: Deployment diagram for the system.
10. To perform various testing using the testing tool unit testing, integration testing for a sample code of the suggested system.
11. Perform Estimation of effort using FP Estimation for chosen system.
12. To Prepare time line chart/Gantt Chart/PERT Chart for selected software project

Note: Student is expected to analyze the system in object oriented manner and design the system in object oriented approach using UML with open source tools

References:

1. Fundamentals of Software Engineering, Fourth Edition, Rajib Mall, PHI

2. R.S. Pressman, Software Engineering a practitioner's approach, Fourth Ed., McGraw Hill, 1997

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23BCMAP234 : **Software Engineering Lab**

Offered to: B. C. A Hons.` **Semester: III**
Max. Marks : 50 (CIA: 15 + SEE: 35) **Hrs/Week: 2**

Model Paper : Practicals

Time: 3 Hrs. **Max. Marks: 35**

Section – A

1. Experiment-1 15 M

2. Experiment-2 10 M

Section – B

Viva Voce 10 M

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