Practical Plan

T.E. (CE- Section A) (Semester V)

Subject: SOFTWARE ENGINEERING*(Practical)*

Teacher-in-charge: Dr. B. S. Daga

Subject code: CSL501

Academic Term: July – October 2023

Course Outcomes:

Upon completion of this course students will be able to:

> CSL501.1 Identify requirements and apply software process model to selected case study
> CSL501.2 Develop architectural models for the selected case study
> CSL501.3 Use computer-aided software engineering (CASE) tools

Course Objectives (CSL501)	Bloom's Taxonomy Level	Program Outcomes (PO)	Program Specific Outcomes (PSO)	Competency Indicators	Justification
CSL501.1: Recognize software requirements and apply appropriate software process models to a selected case study.	Applying	PO1: Engineering knowledge	-	-	This objective involves applying knowledge of software process models, directly aligning with PO1. It doesn't directly align with any PSO.
CSL501.2: Generate architectural models tailored to the selected case study.	Creating	PO3: Design/Development of Solutions	-	-	Crafting architectural models involves the creative process of design, aligning with PO3. It doesn't directly align with any PSO.
CSL501.3: Utilize computer-aided software engineering (CASE) tools effectively.	Applying	-	PSO1: Develop AI and ML systems	1.2.1, 1.2.2, 1.2.3	Proficient utilization of CASE tools entails applying specialized knowledge (PSO1) to enhance the software engineering process.

Relationship of course outcomes with program outcomes:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CSL501.1	1		1											

CSL501.2	1		1		2									
CSL501.3	1		1		2	2								

Justification of PO to CO mapping

CO	Competency	Performance Index
CSL501.1	2.1 Demonstrate an ability to identify and formulate complex engineering problem	2.1.2 Identify processes/modules of a computer-based system and parameters to solve a problem
	2.2 Demonstrate an ability to formulate a solution plan and methodology for an engineering problem	2.2.3 Identify existing solution/methods to solve the problem, including forming justified approximations and assumptions. 2.2.5 Compare and contrast alternative solution processes to select the best process.
	2.4 Demonstrate an ability to execute a solution process and analyze results	2.4.2 Analyze and interpret the results using contemporary tools. 2.4.3 Identify the limitations of the solution and sources/causes.

	4.2 Demonstrate an ability to design experiments to solve open-ended problems	4.2.1 Design and develop appropriate procedures/methodologies based on the study objectives
CSL501.3	4.1 Demonstrate an ability to conduct investigations of technical issues consistent with their level of knowledge and understanding	4.1.1 Define a problem for purposes of investigation, its scope and importance 4.1.2 Able to choose appropriate procedure/algorithm, dataset and test cases. 4.1.3 Able to choose appropriate hardware/software tools to conduct the experiment.
	4.2 Demonstrate an ability to design experiments to solve open-ended problems	4.2.1 Design and develop appropriate procedures/methodologies based on the study objectives
	4.3 Demonstrate an ability to analyze data and reach a valid conclusion	4.3.1 Use appropriate procedures, tools and techniques to and analyze collect data 4.3.2 Critically analyze data for trends and correlations, stating possible errors and limitations 4.3.3 Represent data (in tabular and/or graphical forms) so as to facilitate analysis and explanation of the data, and drawing of conclusions 4.3.4 Synthesize information and knowledge about the problem from the raw data to reach appropriate conclusions
	5.1 Demonstrate an ability to identify/create modern engineering tools, techniques and resources	5.1.1 Identify modern engineering tools, techniques and resources for engineering activities 5.1.2 Create/adapt/modify/extend tools and techniques to solve engineering problems

CO Assessment Tools:

Course Outcomes	Direct Method (80%)				Indirect Method (20%)
	Attendance	Lab Performance	Journal Assessment	End Sem Exam (PR)	Course exit survey
CSL501.1	10%	20%	20%	50%	100%
CSL501.2	10%	20%	20%	50%	100%
CSL501.3	10%	20%	20%	50%	100%

CO calculation= (0.5 *Direct method + 0.5*Indirect method)

Rubrics for assessing Course Outcome with each assessment tool:

Laboratory:

Sr. No	Performance Indicator	Exceed Expectation (EE)	Meet Expectation (ME)	Below Expectation (BE)
1	On time Completion & Submission (01)	01 (On Time)	NA	00 (Not on Time)
2	Logic/Algorithm Complexity analysis(03)	03(Correct)	02(Partial)	01 (Tried)
3	Coding Standards (03): Comments/indention/Naming conventions Output/Test Cases	03(All used)	02 (Partial)	01 (rarely followed)
4	Post Lab Assignment (03)	03(done well)	2 (Partially Correct)	1(submitted)

Practical Plan

Class: T.E. (Semester V)	Weekly Schedule:
Course name/code: CSL501	Batch A: Monday 11-1
Academic Year:	Batch B: Tuesday 11-1
Name of the teacher	Batch C: Wednesday 11-1
Dr. B. S. Daga	Batch D: Thursday 11-1
Course Outcomes:	
CSL501.1 Identify requirements and apply software process model to selected case study	

CSL501.2 Develop architectural models for the selected case study
CSL501.3 Use computer-aided software engineering (CASE) tools

Sr. No.	Title of experiment	Course Outcomes	Batch	Planned date	Actual date	Remark
1	Software Requirement Specification Of the given project.	CSL501.1	A	24-07-23		
			B	27-07-23		
			C	26-07-23		
			D	25-07-23		
2	Implement Given problem statement using SCRUM method on JIRA Tool	CSL501.1	A	31-07-23		
			B	03-08-23		
			C	02-08-23		.
			D	01-08-23		
3	. Implement Given problem statement System using KANBAN method on JIRA Tool	. CSL501.1	A	07-08-23		
			B	10-08-23		
			C	09-08-23		.
			D	08-08-23		
4	To calculate function point for Given problem statement System.	. CSL501.1	A	14-08-23		
			B	17-08-23		
			C	23-08-23		.
			D	22-08-23		
5	To estimate project cost using COCOMO Model for Given problem statement	CSL501.2	A	21-08-23		
			B	24-08-23		
			C	30-08-23		
			D	29-08-23		
6	Develop diagrams for data flow analysis on Given problem statement System	CSL501.2	A	28-08-23		
			B	31-08-23		
			C	06-09-23		
			D	05-09-23		
7	Implementation of data flow design pattern	CSL501.3	A	04-09-23		
			B	07-09-23		
			C	13-09-23		
			D	12-09-23		
8	Do design using Object Oriented approach and hence highlight Cohesion and Coupling in the design	CSL501.2	A	11-09-23		
			B	14-09-23		
			C	20-09-23		
			D	26-09-23		
9A	To design test cases for performing	CSL501.3	A	18-09-23		
			B	21-09-23		
			C	27-09-23		

	black box testing for the given project					
			D	03-10-23		
9B	To design test cases for performing white box testing for given project	CSL501.3	A	25-09-23		
			B	05-10-23		
			C	04-10-23		
			D	10-10-23		
10	Version controlling & Risk Analysis of the project	CSL501.3	A	09-10-23		
			B	12-10-23		
			C	11-10-23		
			D	17-10-23		

Submitted By	Approved By
	Prof. RoshniPadate Sign:
Dr. B. S. Daga	
Date of Submission:	**Date of Approval:**
Remarks by DQAC (if any)	