Course Title:Software Engineering & Information System Design Laboratory
CourseCode: CSE 306

Credits: 1.5 **Class Hours/Week: 3**
CourseType: Core **Pre-requisite: DMSL**
CIE Marks: 70 **SEE Marks: 30**

Course Rationale:
Software Engineering and Information Systems is a profile where the software development is studied in a systematic, controllable and efficient way.

Course Objectives:
The objectives of the course are:
1. To impart state-of-the-art knowledge on Software Engineering and UML in an interactive manner through the Web.
2. To present case studies to demonstrate practical applications of different concepts.
3. To provide a scope to students where they can solve small, real life problems.

Course Outcomes (COs):
Upon successful completion of this course, students will be able to

CO1 **Use (C3)** appropriate tools for managing a software project.

CO2 **Implement (C3)** various client-side and server-side concepts utilizing design pattern to develop a software.

CO3 **Investigate (C4)** a system and**Report(A2)** the overall workingprocess using modern tools.

Mapping of Course Outcomes to Program Outcomes:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1					√							
CO2	√	√	√		√							
CO3		√		√	√				√	√		

Course Description:

SL No.	Course Contents	COs
1.	**Project Management:**Project collaboration, Task Management	CO1
2.	**Implementation:**Client side and server-side feature implementation, design pattern and modular approach,software testing	CO2

3.	**System Modeling:** Project Proposal, Process model selection, UML diagram design, SRS document	CO3

Text and Reference Books:

1. Head First Design Patterns by Eric Freeman, Elisabeth Robson, Bert Bates, Kathy Sierra
2. Downloaded Software Engineering with UML by Bhuvan Unhelkar
3. Practical UI Patterns for Design Systems. Fast-Track Interaction Design for a Seamless User Experience by Diana MacDonald

Mapping CourseOutcomes with the Teaching-Learning and Assessment Strategy:

COs	**Corresponding POs**	**Bloom's Taxonomy domain/level** ***(C: Cognitive, P: Psychomotor A: Affective)***	**Delivery Methods and Activities**	**Assessment Tools**
CO 1	PO5	C3	Lecture, slides	Class performance, Assignment, Report
CO 2	PO1, PO2, PO3, PO5	C3	Lecture, slides	Class performance, Assignment, Report
CO 3	PO2, PO4, PO5, PO9, PO10	C4, A2	Lecture, slides	Class performance, Assignment, Report

Department of Computer Science and Engineering
Lesson Plan:

Course Title: Software Engineering & Information System DesignLab **Course Code: CSE-306**
Level/Term: Level-3 Term-1 **Section: C**
Credit:1.5 **Conduct Hours:33**
Prerequisite: Database Management System
Type: Core/Major: Core
Session:Spring 2024

Instructor: Jannathul Maowa Hasi
Class schedule:
Section-C: Saturday: 2.30 PM-5.30 PM

Counseling Time:
Tuesday: 12.30 PM-2.30 PM
Room No: 507
Email address: jmhasi09@gmail.com **Phone No: 01772759640**

Lesson plan:

Day/ Lesson	Topic	Teaching strategy	Course outcome	Assessment Strategy
1	Introduction, Forming group	Class Lecture	CO1	
2	Proposal Presentation with report and slides		CO1,CO3	Lab Performance, **Report**
3	Software development model	Class Lecture	CO2,CO3	
4	User, Functional and Non Functional Requirements	Class Lecture & Demonstration	CO2, CO3	
5	SRS Presentation and Report submission		CO2,CO3	Lab Performance, **Report**
6	UML Diagram(Use case diagram, Activity diagram,ER diagram)	Class Lecture	CO1,CO3	

7	Presentation on UML Diagram(Use case diagram, Activity diagram, ER diagram) with report and slides		CO1,CO3	Lab Performance**,** **Report**
8	UML Diagram(Sequence digram, Class diagram)	Class Lecture	CO1	
9	Presentation and Design Document Submission		CO1, CO3	Lab Performance**,** **Report**
10	Client Side Implementation	Demonstration	CO2	
11	Server Side Implementation & Costing and Testing	Demonstration and Lecture	CO2, CO3	Lab Performance**,** **Report**
12	Final Presentation & report Submission		CO1, CO2,CO3	