Department of Computer Science and Engineering
Lesson Plan

Course Title: Programming Fundamentals Laboratory **Course Code:** CSE 1114
Year/Semester: 1/1 **Section:** A, B
Contact Hours: 42 **Credit:** 1.5
Course Type: Core
Status: Sessional (Programming-Based Lab)
Prerequisite: CSE 1113: Programming Fundamentals (concurrent or completed)
Session: Spring 2025

Instructor: Mohammad Hasan
Assistant Professor, DCSE, PU.

Class schedule: Section- A: Tuesday (8:30 am-11:00 am) (Room - 905)
Section- B: Tuesday (11:00 am-1:30 pm) (Room - 905)

Counseling Time:
Saturday, 9:45 am - 11:00 am (A, B)
Monday, 12:15 pm - 1:30 pm (A, B)
Room No.: 607
Email Address: mehedipucse@gmail.com **Phone No.:** 01921009559

Course Rationale:

To improve skill and expertise in a programming language by solving various problems.

Course Objective:
The objectives of the course are

1. To learn programming language basics.
2. To make the student understand how to analyze the problems and translate the solution to programming language.

Course Learning Outcomes:
Upon successful completion of this course, students will be able to

CLO1	**Demonstrate (C2)** the knowledge of the basic programming techniques and syntax.
CLO2	**Use (C3)** programming constructs to solve specific real-world problems.
CLO3	**Test (C3)** computer programs in an Integrated Development Environment (IDE).
CLO4	**Write (A3)** an individual or group report to disseminate the problem execution process and findings.

Textbooks, References, and Online Resources:

1) **Programming in ANSI C**: E. Balagurusamy; Latest version

2) **Teach Yourself C**: Herbert Schild
3) **Programming with C**: Schaum's Outlines; Latest version
4) **The C programming Language**: C Kernighan & D.M. Ritchie
5) **Problem-Solving using different online judges e.g. UVA, Codeforces etc.**

Teaching Strategy: Typical methodologies are Class lectures, web-access, self-study, problem formulation, and presentation.

Marks Distribution:

Class Assessment (10%), Lab Performance (20%), Report (10%), Lab Exam (30%), Quiz / Written Exam (20%), Viva (10%).

Mapping of Course Outcomes to Program Outcomes:

	PLO(a)	PLO(b)	PLO(c)	PLO(d)	PLO(e)	PLO(f)	PLO(g)	PLO(h)	PLO(i)	PLO(j)	PLO(k)	PLO(l)
CLO1	√											
CLO2	√											
CLO3					√							
CLO4										√		

Weekly schedule:

Week	Topic	Teaching strategy	Resources/ Facilities	Course Learning outcome	Assessment Strategy
1	Introduction to C, IDE installation.	Lectures/ Instructions	Codeblocks/VScode, Projector, Desktop PC, Online site	CLO1	---
2	Data types and variables, Operators, Expression & Statement.	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO1	Quiz
3	Standard input and output, formatted input and output, File Handling	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO1	Quiz
4	Conditional Statements	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO2,CLO3, CLO4	Performance 1, Report 1
5	Looping Statements	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO2, CLO4	Performance 1, Report 1
6	Nested loops	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO2, CLO4	Performance 1, Report 1
7	Arrays	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO3, CLO4	Performance 2, Report 2, Final
8	Strings	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO3, CLO4	Performance 3, Report 3, Final
10	Pointers	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO3	Final

Week	Topic	Teaching strategy	Resources/ Facilities	Course Learning outcome	Assessment Strategy
11	Structure and Union	Practice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	CLO3	Final
12	Review	-	-	-	-
13	Topicwise Problem Solving	Pratice/Problem Solving	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers, Online site	-	-
14	Final Exam	-	Codeblocks/VScode, Projector, Desktop PC, Whiteboard, Markers	CLO1, CLO2, CLO3	Final Performance, Quiz & Viva.

Mapping of Levels of Bloom's Taxonomy with skills:

CLOs	Description	Levels of Bloom's Taxonomy	Skill
CLO1	**Demonstrate (C2)** the knowledge of the basic programming techniques and syntax.	**C2**	Low-order
CLO2	**Use (C3)** programming constructs to solve specific real-world problems.	**C3**	Low-order
CLO3	**Test (C3)** computer programs in an Integrated Development Environment (IDE).	**C3**	Low-order
CLO4	**Write (A3)** an individual or group report to disseminate the problem execution process and findings.	**A3**	Low-order

Domains and Levels of Bloom's Taxonomy:

* "Cognitive" Domain (C): C1 - Recall data, C2 - Understand, C3 - Apply, C4 - Analysis, C5 - Synthesize, and C6 - Evaluate.

* "Affective" Domain (A): A1 - Receive, A2 - Respond, A3 - Value, A4 - Organize personal value system, and A5 - Internalize value system.

* "Psychomotor" Domain (P): P1 - Imitation, P2 - Manipulation, P3 - Develop precision, P4 - Articulation, and P5 - Naturalization.