University of Engineering and Technology Lahore
Section Course Outline Report

Department: Computer Science   **Printed Date:** September 15,

Section Course Detail	
Semester	FALL 2025
Department	Computer Science
Section	D
Subject Title	CSC-200L Data Structures and Algorithms
Subject Domain	Engineering
Subject Knowledge	Computing
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Measureable Student Learning Outcomes

CLOs	Description	PLOs	Domain	Domain Level	Assessments
CLO1	Apply pointer manipulation constructs to rewrite classes for ADTs for collections of objects in the system heap.	PLO03	Cognitive	3. Apply	null
CLO2	Rewrite iterative and recursive functions for linear and binary search in linked lists, arrays, and trees.	PLO03	Cognitive	3. Apply	null
CLO3	Rewrite iterative and recursive functions for sorting data in arrays.	PLO01	Cognitive	3. Apply	null
CLO4	Organize data structures to write programs to solve real-world problems.	PLO01	Cognitive	2. Understand	null

Class Timings

Section Content		
Week (Lec)	**Topics**	**CLO's**
week1	Python Environment Setup using Spyder IDE Get comfortable with the Python Syntax Specifically Arrays Learn to write recursive tasks	CLO3, CLO1

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Week (Lec)	**Topics**	**CLO's**
week2	Comparison of Sorting Algorithms	CLO3
week3	Divide and conquer paradigm	CLO3
week4	Scrap the data from the web pages. Learn to manipulate matrices Data plot using graphs	CLO4
week5	CRUD operations in Python Learn to write formal reports.	CLO4
week6	Mini Excel	CLO4
week7	Mid Project	CLO4
week8	Mid Exam/ Mid Project	CLO4
week9	Implementation of Hash Tables Linear Time Sorting	CLO2
week10	Design of Data Structures (LinkedList, Stack Queue) Application of Custom Data Structures for Algorithms	CLO2
week11	Design of Data Structures(Binary Search Tree) Expression Evaluator	CLO2

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Week (Lec)	Topics	CLO's
week12	Design of Balanced BST	CLO2
week13	Graph Implementation	CLO3, CLO2
week14	Graph Traversal	CLO2
week15	Final Project	CLO4
week16	Final Exam	CLO4