



**United International University (UIU)**  
**Dept. of Computer Science & Engineering (CSE)**

**COURSE OUTLINE**

Course Code: CSE 2216/ CSI 218

Course Title: Data Structure Laboratory/Data Structure and Algorithms I

Laboratory

Section:

Fall Trimester: 2022

**Instructor**      Muntaka Ibnath

**Classes**

**Room No.**      419-C

**Email**      [muntaka@cse.uiu.ac.bd](mailto:muntaka@cse.uiu.ac.bd)

**Textbook**      Follow your theory classes

**Homework**

Homework will be given throughout the session.

**Assignment**

Assignment will be provided in the class. Copied assignments will cause 0 of both.

**Continuous Evaluation**

Tasks given at the lab will be evaluated by class performance. Marks will be assigned on this performance.

**Exams**

Mid-term and final exam will be closed book, closed notes. The materials for Mid-term exam and final exam will be informed in due time. There will be no grade exemptions from the final. Final examination is not comprehensive.

**Marks distribution** of the course is as follows:

Attendance	10%
Class Evaluation	30%
Assignments	25%
Mid-term	10%
Final Exam	15%
Presentation/Viva	10%

**Course Grade** The following scale will be used to convert numerical grades to letter grade:

Letter Grade	Marks	Grade Point	Letter Grade	Marks	Grade Point
A (Plain)	90-100	4.0	C+ (Plus)	70-73	2.33
A- (Minus)	86-89	3.67	C (Plain)	66-69	2.00
B+ (Plus)	82-85	3.33	C- (Minus)	62-65	1.67
B (Plain)	78-81	3.00	D+ (Plus)	58-61	1.33
B- (Minus)	74-77	2.67	D (Plain)	55-57	1.00

**Objectives:**

- (i) To learn basic concept of different data structures.

- (ii) Implement different data structures using C programming.
- (iii) Analysis their running time.

**Outcome:**

- (i) Improve programming skills.
- (ii) Enhances knowledge in the area of data structures.

**Topics**

- 1 Introduction and basic discussion
  - 2 Sorting (selection, insertion, bubble)
  - 3 Searching (linear, binary)
  - 4 Singly linked list – Intro + Insertion
  - 5 Singly linked list – Deletion + Search
  - 6 Doubly + Circular Linked List
  - 7 **Midterm Exam**
  - 8 Stack (array + LL)
  - 9 Queue (array + LL)
  - 10 Graph representation
  - 11 BFS + DFS
  - 12 Tree (traversal technique), BST
  - 13 **Final Exam**
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