North South University

Department of Electrical and Computer Engineering

CSE 225: Data Structures

Course Outline – Spring 2015

Instructor: Ishtiaque Hossain (IHa)
Office Location: SAC 926
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Office hours: Appointment based.

Tuesday	10:00 AM – 01:00 PM 2:00 PM – 4:00 PM

Online Class Information: www.engrade.com

Credit: 3 credit hours.

Course Outline: To get the introductory knowledge of the theory and practice of data structuring techniques. Topics include internal data representation, abstract data types, stacks, queues, list structures, recursive data structures, graphs, etc. Concept of object orientation as a data abstraction technique will be introduced.

Topics that will be covered:
1. Pointers and dynamic memory allocation
2. Data design and implementation
3. Introduction to OOP using C++
4. Unsorted lists
5. Sorted lists
6. Stacks
7. Queues
8. Linked structures
9. Recursion
10. Binary Search Trees
11. Priority Queues, Heaps and Graphs
12. Sorting, searching and hashing

Textbook: C++ Plus Data Structures, Fifth Edition by Nell Dale

Reference Book: C++: The Complete Reference, Herbert Schildt

Marks distribution:

1. Assignment	10%
2. Quizzes	15%
3. Midterm	25%
4. Presentation	10%
5. Final	35%
6. Attendance	05%

General course administration: The class presentations will be interactive lectures. To supplement course administration, there will be an online course management system **Engrade** for this course. All students must subscribe to these services and monitor messages from these groups regularly. Lectures slides and other materials will be provided via Engrade.

Exams and Quizzes: Exams and quizzes will be closed book and closed notes. No electronic devices except non-programmable calculators will be allowed during exams. Calculators cannot be shared with friends. Nobody will be allowed to go outside the exam hall. There will be **no makeup quizzes**, as I will take drop one quiz with the lowest score. If you miss a quiz, you will get zero for that. Any violation of the exam policy may result in failure grade in your corresponding exam or quiz.

Assignments: You have to submit assignments on Engrade when it is due. If you miss this deadline, your assignment points will be reduced by 40% for next day submission. If you miss the next day's deadline, your will get zero credit for that assignment. It is your responsibility to submit the assignments in time.

Class attendance: Being in class in time is mandatory. The classroom door will remain locked during the class. You are not allowed to enter the class if you are late. Nor are you allowed to leave the classroom, even temporarily, during the class. Headcount will be performed every day and your attendance will contribute to your final grade.

Class etiquette: Distracting others in class is violating others rights to be attentive. So, food, laptop or cell phones are not allowed during class time. Be careful about personal discussion during the class.

Academic Honesty: Any means of unauthorized assistance in preparing materials which a student submits as original work is deemed to be cheating and constitutes grounds for disciplinary action. Instructors are expected to use reasonably practical means of preventing and detecting cheating. Any student judged to have engaged in cheating might receive a reduced grade for the work in question, a failing grade in the course, or such other lesser penalty, as the instructor deems appropriate. Serious instances may be referred to the Disciplinary Committee in the Office of the Vice Chancellor.