Discrete Structures

Fall 2017

Instructor: Nouman Azam

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Lectures:

Time: Wed, 11:00 am – 12:30pm
Mon 12:30- 1:00 pm

Office Hours:

Tuesdays 8:00 am – 11:00 am.

Contact:

By appointment (email me).

Texts

1. Discrete Mathematics and its Applications by Kenneth H. Rosen. (6th Edition)

2. Discrete Mathematics and its Applications by Susanna S. Epp

Course Description

To develop mathematical maturity for Students entering the Computer Science program and cover specific topics relevant to further study in Computer Science. The course will aim to make students understand the basic set terminology and operations, characterization of mathematical relationships, basic terminology and operations for trees and graphs etc. By course completion students will have a good understanding of the discrete structures.

Syllabus

Logic: logical Form and logical Equivalence, Conditional Statements, Valid and Invalid Arguments, Predicates and Quantifiers.

Relations: Relations and their properties, n-ary relations and their applications, Representing Relations, Closures of Relations, Equivalence Relations, and Partial Orderings.

Graphs: Introduction to Graphs, Graph Terminology, Representing Graphs and Graphs Isomorphism, Connectivity, Euler and Hamilton Paths, Shortest Path Problems, Planner Graphs, and Graph Coloring.

Trees: Introduction to Trees, Applications of Trees, Tree Traversal, Trees and Sorting, Spanning Trees, and Minimum Spanning Trees.

Grading Policy

10% -- Assignments (3 -7)

10% -- Quizes (3-7)

30% - Sessionals

50% - Final examination.

Policies

1. Information about the course appears on Slate. Please make sure you check for the recourses regularly.

2. Your email might be caught as junk and I may not receive it. It's your responsibility to make sure that I receive your email. If you do not receive a response within 24 hours, try to send me a reminder. If that does not work as well, try to see me. Always mention your name, student number and course in your email for easy handling.

3. All assignments, slides and other materials will be posted on slate.

4. All assignments/proposals/reports should be handed in time. Late submissions are not accepted for any reason and will receive 0 points, except for extensions granted to the entire class. If you want to submit and I am not in office, just push it beneath the door of my office.

5. Any question regarding assignment submission or marking should be promptly addressed to me through email. In particular, any question/concern regarding marking should be submitted no later than seven days after the marks are posted.

6. All assignments should contain your name, student number and assignment number on the first page.

7. You can discuss the assignment with other students before writing up but MAY NOT read, copy, or exchange other student's code and material.

8. Attendance is required in lectures and labs. Little time is available to assist those who have missed relevant classes.

9. All exams are closed book and will be given during the regular lecture meeting time in the regular classroom.

10. You are mature students, so I expect that you will respect my time, and you will not raise concerns regarding attendance.