



CS 225_40X: Discrete Structures in CS (Fall 2022)

Abbreviated Weekly Schedule*:

To summarize, the assignments, initial and final posts of bi-weekly discussions are due by 11:59 pm (Pacific Time) on Mondays, bi-weekly/fortnightly quizzes on materials covered in the prior weeks are due by 11:59 pm (Pacific Time) on Wednesdays, reply posts of discussions are due by 11:59 pm (Pacific Time) on Thursdays (**except week 10**). Please make sure that you have submitted the assignments, discussion responses, and quizzes via Canvas.

*This schedule is subject to change. Changes, if necessary, will be updated here and posted via Canvas/Ed Discussion announcements.

Week	Course Topics (followed the 5 th edition of the required textbook)
#1 Assignments due: October 03, 2022	- Chapter 2: Section – 2.1 Logical Form and Logical Equivalence - Chapter 2: Section – 2.2 Conditional Statements
#2 Assignments due: October 10, 2022 Syllabus Quiz due: October 12, 2022	- Chapter 3: Section - (3.1 to 3.2) Predicates and Quantified Statements - Chapter 5: Section - (5.1 to 5.2) Sequences and Summations
#3 Assignments due: October 17, 2022 Quiz 1 due: October 19, 2022	- Chapter 4: Section – (4.1 to 4.5) Direct Proof and Counterexample - Chapter 4: Section – 4.7 Indirect Argument: Contraposition - Chapter 4: Section – (4.7 to 4.8) Indirect Argument: Contradiction and Two Classical Theorems
#4 Assignments due: October 24, 2022 Canvas discussion due (initial post): October 24, 2022 Canvas discussion due (reply post): October 27, 2022 Canvas discussion due (final post): October 31, 2022	- Chapter 6: Section - 6.1 Set Theory: Definitions and Element Method of Proof - Chapter 6: Section – (6.2 to 6.3) Properties of Sets and Disproofs, Algebraic Proofs

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Week	Course Topics (followed the 5 th edition of the required textbook)
#5 Assignments due: October 31, 2022	- Chapter 5: Section - (5.2 to 5.3) Mathematical Induction: Weak Induction - Chapter 5: Section - 5.4 Strong Mathematical Induction
#6 Assignments due: November 07, 2022 Canvas discussion due (initial post): November 07, 2022 Canvas discussion due (reply post): November 10, 2022 Canvas discussion due (final post): November 14, 2022	Chapter 5: (Section - 5.6, 5.7, and 5.9) Recursive Definitions
#7 Assignments due: November 14, 2022	- Chapter 9: Section-(9.2 to 9.3) Basic Counting Rules: Multiplication and Addition Rule - Chapter 9: Section-9.4 The Pigeonhole Principle
#8 Assignments due: November 21, 2022	- Chapter 9: Section- (9.2 and 9.5) Permutations and Combinations - Chapter 9: Section - 9.6 Combinations with Repetition Allowed
#9 Assignments due: November 28, 2022 Quiz 2 due: November 30, 2022	- Chapter 1: Section-1.4 The Language of Graphs - Chapter 4: Section-4.9 Application: The Handshake Theorem - Chapter 10: Section-10.1 Connectedness: Trails, Paths and Circuits
#10 Assignments due: December 02, 2022 (no late submission allowed)	Chapter 10: Section -10.6 a Shortest Path Algorithm
#Final Week Final Exam due: December 08, 2022	Final Exam: 12/04/2022 – 12/08/2022 (covers Week 3 – Week 10)