CS 225_400: Discrete Structures in CS (Spring 2020)

Abbreviated Weekly Schedule:

To summarize, Assignments and discussions are due on Sundays and quizzes on materials covered in the prior weeks are due by Wednesdays. Please make sure that you have submitted the assignments and quizzes via Canvas.

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

Week	Course Topics (followed the 5th edition of the required textbook)
#1 Assignments due: **April 05, 2020** Syllabus Quiz due: **April 08, 2020**	• Chapter 2: Section – 2.1 Logical Form and Logical Equivalence • Chapter 2: Section – 2.2 Conditional Statements
#2 Assignments due: **April 12, 2020** Canvas Discussion due: **April 12, 2020** Quiz 1 due: **April 15, 2020**	• 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: **April 19, 2020** Quiz 2 due: **April 22, 2020**	• 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: **April 26, 2020** Canvas Discussion due: **April 26, 2020** Quiz 3 due: **April 29, 2020**	• 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

#5 Assignments due: **May 03, 2020** Quiz 4 due: **May 06, 2020**	• Chapter 5: Section - (5.2 to 5.3) Mathematical Induction: Weak Induction • Chapter 5: Section - 5.4 Strong Mathematical Induction
#6 Assignment due: **May 10, 2020** Canvas Discussion due: **May 11, 2020** Quiz 5 due: **May 13, 2020**	• Chapter 5: (Section - 5.6, 5.7, and 5.9) Recursive Definitions
#7 Assignments due: **May 17, 2020**	• 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: **May 24, 2020** Canvas Discussion due: **May 24, 2020** Quiz 6 due: **May 27, 2020**	• Chapter 9: Section- (9.2 and 9.5) Permutations and Combinations • Chapter 9: Section - 9.6 Combinations with Repetition Allowed
#9 Assignments due: **May 31, 2020** Quiz 7 due: **June 03, 2020**	• 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 Assignment due: **June 07, 2020 (No late submission is allowed)** Canvas Discussion due: **June 07, 2020** Quiz 8 due: **June 10, 2020**	• Chapter 10: Section -10.6 Spanning Trees and a Shortest Path Algorithm