CS 225_400: Discrete Structures in CS (Winter 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 Mondays (except week 10). 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: **January 12, 2020** Syllabus Quiz due: **January 13, 2020**	• Chapter 2: Section – 2.1 Logical Form and Logical Equivalence • Chapter 2: Section – 2.2 Conditional Statements
#2 Assignments due: **January 19, 2020** Canvas Discussion due: **January 19, 2020** Quiz 1 due: **January 20, 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: **January 26, 2020** Quiz 2 due: **January 27, 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: **February 02, 2020** Canvas Discussion due: **February 02, 2020** Quiz 3 due: **February 03, 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: **February 09, 2020** Quiz 4 due: **February 10, 2020**	• Chapter 5: Section - (5.2 to 5.3) Mathematical Induction: Weak Induction • Chapter 5: Section - 5.4 Strong Mathematical Induction
#6 Assignment due: **February 16, 2020** Canvas Discussion due: **February 16, 2020**	• Chapter 5: (Section - 5.6, 5.7, and 5.9) Recursive Definitions
#7 Assignments due: **February 23, 2020** Midterm Exam due: **February 23, 2020**	**Midterm Exam: 02/19/2020 - 02/23/2020 (Week 1- Week 5)** • 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: **March 01, 2020** Canvas Discussion due: **March 01, 2020** Quiz 5 due: **March 02, 2020**	• Chapter 9: Section- (9.2 and 9.5) Permutations and Combinations • Chapter 9: Section - 9.6 Combinations with Repetition Allowed
#9 Assignments due: **March 08, 2020** Quiz 6 due: **March 09, 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: **March 11, 2020 (No late submission is allowed)** Canvas Discussion due: **March 11, 2020** Quiz 7 due: **March 12, 2020**	• Chapter 10: Section -10.6 Spanning Trees and a Shortest Path Algorithm
# Final Week Final Exam due: **March 18, 2020**	**Final Exam: 03/14/2020 – 03/18/2020 (Week 3 - Week 10)**