



## CS 225\_40X: Discrete Structures in CS (Spring 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 <sup>th</sup> edition of the required textbook)
<b>#1</b> Assignments due: <b>April 04, 2022</b> Syllabus Quiz due: <b>April 06, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 2: Section – 2.1 Logical Form and Logical Equivalence</li> <li>Chapter 2: Section – 2.2 Conditional Statements</li> </ul>
<b>#2</b> Assignments due: <b>April 11, 2022</b> 7 Uj Ug XjgW ggjcb due fjb]hU`dcgt: <b>April 11, 2022</b> Canvas discussion due (reply post): <b>April 14, 2022</b> Canvas discussion due (final post): <b>April 18, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 3: Section - (3.1 to 3.2) Predicates and Quantified Statements</li> <li>Chapter 5: Section - (5.1 to 5.2) Sequences and Summations</li> </ul>
<b>#3</b> 5 gg] ba Yb]g`Xi Y. <b>April 18, 2022</b> Ei ]n`1`Xi Y. <b>April 20, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 4: Section – (4.1 to 4.5) Direct Proof and Counterexample</li> <li>Chapter 4: Section – 4.7 Indirect Argument: Contraposition</li> <li>Chapter 4: Section – (4.7 to 4.8) Indirect Argument: Contradiction and Two Classical Theorems</li> </ul>
<b>#4</b> Assignments due: <b>April 25, 2022</b> 7 Uj Ug XjgW ggjcb due fjb]hU`dcgt: <b>April 25, 2022</b> Canvas discussion due (reply post): <b>April 28, 2022</b> Canvas discussion due (final post): <b>May 02, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 6: Section - 6.1 Set Theory: Definitions and Element Method of Proof</li> <li>Chapter 6: Section – (6.2 to 6.3) Properties of Sets and Disproofs, Algebraic Proofs</li> </ul>

# CS 225

## Discrete Structures in Computer Science

Week	Course Topics (followed the 5 <sup>th</sup> edition of the required textbook)
<b>#5</b> 5 gg[[ ba Yb1g'Xi Y. <b>May 02, 2022</b> Ei Jn'2'Xi Y. <b>May 04, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 5: Section - (5.2 to 5.3) Mathematical Induction: Weak Induction</li> <li>Chapter 5: Section - 5.4 Strong Mathematical Induction</li> </ul>
<b>#6</b> Assignments due: <b>May 09, 2022</b> Canvas discussion due (initial post): <b>May 09, 2022</b> Canvas discussion due (reply post): <b>May 12, 2022</b> Canvas discussion due (final post): <b>May 16, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 5: (Section - 5.6, 5.7, and 5.9) Recursive Definitions</li> </ul>
<b>#7</b> Assignments due: <b>May 16, 2022</b> Quiz 3 due: <b>May 18, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 9: Section-(9.2 to 9.3) Basic Counting Rules: Multiplication and Addition Rule</li> <li>Chapter 9: Section-9.4 The Pigeonhole Principle</li> </ul>
<b>#8</b> Assignments due: <b>May 23, 2022</b> Canvas discussion due (initial post): <b>May 23, 2022</b> Canvas discussion due (reply post): <b>May 26, 2022</b> Canvas discussion due (final post): <b>May 30, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 9: Section- (9.2 and 9.5) Permutations and Combinations</li> <li>Chapter 9: Section - 9.6 Combinations with Repetition Allowed</li> </ul>
<b>#9</b> Assignments due: <b>May 30, 2022</b> Quiz 4 due: <b>June 01, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 1: Section-1.4 The Language of Graphs</li> <li>Chapter 4: Section-4.9 Application: The Handshake Theorem</li> <li>Chapter 10: Section-10.1 Connectedness: Trails, Paths and Circuits</li> </ul>
<b>#10</b> Assignments due: <b>June 03, 2022 (no late submission allowed)</b> Canvas discussion due (initial post): <b>May 30, 2022</b> Canvas discussion due (reply post): <b>June 02, 2022</b> Canvas discussion due (final post): <b>June 06, 2022</b>	<ul style="list-style-type: none"> <li>Chapter 10: Section -10.6 a Shortest Path Algorithm</li> </ul>
<b>#Final Week</b> Final Exam due: <b>June 09, 2022</b>	<b>Final Exam: 06/05/2022 – 06/09/2022 (covers Week 3 – Week 10)</b>