



CS 225-40X(0/1/2/3/4): Discrete Structures in CS (Summer 2022)

Abbreviated Weekly Schedule:

Hc`gi a a Uf`nYž`H Y`Ugg][ba Ybłg, [b]hU` and final dcglg`cZ X]gW gg]cbg`UfY Xi Y`Vm %%) - `da `fDSHL` cb Tuesdays,` ei]nnYg`UfY Xi Y`Vm %%) - `da `fDSHL` and reply posts of discussions are due by 11:59 pm (PST) on Fridays" D`YUgY`a U`Y gi fY`H U`mci ` \ Uj Y` gi Va]HfYX`H Y`Ugg][ba Ybłgž X]gW gg]cb`fYgdcbgYgž UbX`ei]nnYg`j]U7 Ubj Ug`fH]g` gW YXi `Y`]g`gi V`YVh`h` W Ub[Y` 7\ Ub[Ygž]Z bYVWggUf`nž k]` VY`i dXUHfYX` \ YfY` UbX` dcghYX` j]U7 Ubj Ug`Ed Discussion`Ubbci bVW`a Ybłg"

Week	Course Topics (followed the 5 th edition of the required textbook)
#1 Assignments due: June 28, 2022 Syllabus Quiz due: July 01, &\$&2	<ul style="list-style-type: none"> Chapter 2: Section – 2.1 Logical Form and Logical Equivalence Chapter 2: Section – 2.2 Conditional Statements Chapter 3: Section – (3.1 to 3.2) Predicates and Quantified Statements
#2 Assignments due: July 05, 2022 Canvas discussion due (initial post): July 05, 2022 Canvas discussion due (reply post): July 08, 2022 Canvas discussion due (final post): July 12, 2022	<ul style="list-style-type: none"> 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
#3 5 gg][ba Ybłg`Xi Y. July 12, 2022 Quiz 1 due: July 15, 2022	<ul style="list-style-type: none"> 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 Chapter 5 : Section – (5.1 and 5.2) Sequences and Summations
#4 Assignments due: July 19, 2022 Canvas discussion due (initial post): July 19, 2022 Canvas discussion due (reply post): July 22, 2022 Canvas discussion due (final post): July 26, 2022	<ul style="list-style-type: none"> Chapter 5: Section – (5.2 to 5.3) Weak Mathematical Induction Chapter 5: Section – 5.4 Strong Mathematical Induction Midterm Quiz : (Week 1 – Week 3)

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Discrete Structures in Computer Science

Week	Course Topics (followed the 5 th edition of the required textbook)
#5 5 gg[ba Ybly'Xi Y. July 26, 2022 Quiz 2 due: July 29, 2022	<ul style="list-style-type: none"> Chapter 5: (Section – 5.6, 5.7, and 5.9) Recursive Definitions Chapter 9: Section – (9.2 to 9.3) Basic Counting Rules: Multiplication and Addition Rule Chapter 9: Section – 9.4 The Pigeonhole Principle
#6 Assignments due: August 02, 2022 Canvas discussion due (initial post): August 02, 2022 Canvas discussion due (reply post): August 05, 2022 Canvas discussion due (final post): August 09, 2022	<ul style="list-style-type: none"> Chapter 9: Section – (9.2 and 9.5) Permutations and Combinations Chapter 9: Section – 9.6 Combinations with Repetition Allowed
#7 Assignments due: August 09, 2022 (<u>no</u> <u>late submission will be</u> <u>graded</u>)	<ul style="list-style-type: none"> 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 Chapter 10: Section -10.6 A Shortest Path Algorithm
#Final Week Final Exam due: August 14, 2022	Final Exam: 08/10/2021 – 08/14/2021 (Week 2 – Week 7)