Course Calendar

Mon.	Tues.	Wed.	Thurs.	Fri.
Jan. 16 2023 Martin Luther King Jr. Day	17	18 Motivation • Syllabus	19	20 Propositional Logic Prerequisite Survey • Propositions • Connectives
23 Propositional Logic • Equivalence • Boolean algebra • Zeroth-order proofs	24	25 First-Order Logic • Predicates • Quantifiers	26 Recitation	27 First-Order Logic Problem Set 1 • Argument validity • First-order proofs
30 First-Order Logic • Syllogisms • Proof techniques	31	***Feb. 1 2023*** ZF Set Theory • Existence • Extensionality • Pairing • Union	2 Recitation	3 ZF Set Theory Problem Set 2 • R. Comprehension • Regularity • Power Set
6 ZF Set Theory • Infinity • v. Neumann ordinals • $\mathbb{Z}$, $\mathbb{Q}$, and $\mathbb{R}$	7	8 ZF Set Theory • Arithmetic on $\mathbb{N}$ • Functions, lists, matrices • Relaxation	9 Recitation	10 Induction Problem Set 3 • L.E.P. of $\mathbb{N}$ • Weak induction
13 Induction • Weak induction • Strong induction	14	15 Recurrences • Recursion • Recurrence relations • Algorithms	16 Recitation	17 Recurrences Problem Set 4 • More algorithms
20 Asymptotic Analysis • Big-$\mathcal{O}$ • Big-Ω • $\preccurlyeq$-ordering	21	22 Asymptotic Analysis • More algorithms	23 Recitation	24 Midterm 1
27 Functions • Injections • Surjections • Bijections	28	***Mar. 1 2023*** Functions • Monomorphisms • Epimorphisms • Isomorphisms	2 Recitation	3 Functions Problem Set 5 • Schröder-Bernstein • Permutations
6 Cardinality • Finite sets • Countable sets	7	8 Cardinality • Some theorems	9 Recitation	10 Cardinality Problem Set 6 • Uncountable sets

Mon.	Tues.	Wed.	Thurs.	Fri.
13 Spring Break Midterm Grades Due	14 Spring Break	15 Spring Break	16 Spring Break	17 Spring Break
20 Cardinality • Strings • Sequences	21	22 Relations • Properties • Preorders • Partial orders	23 Recitation	24 Relations Problem Set 7 • Equiv. Relations
27 Number Theory	28	29 Number Theory	30 Recitation	31 Number Theory Problem Set 8
Apr. 3 2023 Number Theory	4	5 Number Theory	6 Recitation Problem Set 9	7 Easter Holiday
10 Easter Holiday	11	12 ???	13 Recitation	14 Midterm 2
17 Graph Theory	18	19 Graph Theory	20 Recitation	21 Graph Theory Problem Set 10
24 Graph Theory	25	26 Graph Theory	27 Recitation	28 Graph Theory Problem Set 11
May. 1 2023 ???	2	3 Review	4 Reading Days	5 Reading Days

Mon.	Tues.	Wed.	Thurs.	Fri.
8	9	10 Final Exam 4:15pm – 6:15pm	11	12
15 Final Grades Due	16	17	18	19