Course Calendar

Current as of March 7, 2023.

Mon.	Tues.	Wed.	Thurs.	Fri.
Jan. 16 2023 Martin Luther King Jr. Day	17	18 Motivation · Syllabus · 19c. – 20c. revolution	19	20 Prerequisite Survey Motivation · Argumentation · Truth values
23 Propositional Logic · Propositions · Connectives · Truth tables	24	25 Propositional Logic · Sufficiency · Necessity · Boolean algebras	26 Recitation	27 Problem Set 1 Propositional Logic · Equivalence proofs · Boolean theorems
30 First-Order Logic · Predicates · Quantifiers	31	**Feb. 1 2023** First-Order Logic · Rules of inference · Proofs	2 Recitation	3 First-Order Logic · Validity of arguments · Church's Theorem
6 Problem Set 2 ZF Set Theory · Well-formed formulæ · What is a set? · Why set theory?	7	8 ZF Set Theory · Ax. Existence · Ax. Extensionality · Ax. Pairing · Ax. Union	9 Recitation	10 ZF Set Theory · Unions of sets · Ax. Separation
13 Set Theory · Ax. Regularity · Ax. Power Set · The empty set	14	15 Problem Set 3 Set Theory · v. Neumann ordinals · Ax. Infinity · Arithmetic	16 Recitation	17 Induction · $\mathbb{Z}$, $\mathbb{Q}$, and $\mathbb{R}$ · L.E.P. of $\mathbb{N}$ · Weak induction
20 Induction · Weak induction · Strong induction	21	22 Complexity · Fibonacci Sequence · Recurrence relations	23 Recitation	24 Problem Set 4 Complexity · Solving recurrences · Searching algorithms
27 Complexity · Solving recurrences · Sorting algorithms	28	**Mar. 1 2023** Problem Set 5 Complexity · What is a function?	2 Recitation	3 Midterm 1

Mon.	Tues.	Wed.	Thurs.	Fri.
6 Complexity · Landau notation	7	8 Functions · Big-$\mathcal{O}$ examples	9 Recitation	10 Cardinality · Injections · Surjections · Bijections · Strings · Sequences
13 Spring Break Midterm Grades Due	14 Spring Break	15 Spring Break	16 Spring Break	17 Spring Break
20 Cardinality · Finite sets · Countable sets · Ax. Choice · Uncountable sets	21	22 Relations · Properties · Preorders · Partial orders	23 Recitation	24 Problem Set 6 Relations · Equiv. Relations
27 Number Theory	28	29 Number Theory	30 Recitation	31 Problem Set 7 Number Theory
Apr. 3 2023 Number Theory	4	5 Number Theory	6 Recitation Problem Set 8	7 Easter Holiday
10 Easter Holiday	11	12 ???	13 Recitation	14 Midterm 2
17 Graph Theory	18	19 Graph Theory	20 Recitation	21 Problem Set 9 Graph Theory
24 Graph Theory	25	26 Graph Theory	27 Recitation	28 Problem Set 10 Graph Theory

Mon.	Tues.	Wed.	Thurs.	Fri.
May. 1 2023 ???	2	3 Review	4 Reading Days	5 Reading Days
8	9	10 Final Exam 4:15pm – 6:15pm	11	12
15 Final Grades Due	16	17	18	19