Week		Content	Reading	HW Assigned	PA Assigned
week1	Tuesday, September 5, 2023	Course policies, introduction to Th. Of Comp. First look at Finite State Automata (FSA)	Chapter 0		
	Thursday, September 7, 2023	Terminology and formal defnition of FSAs state diagrams, regular languages (RL) operations on RLs	Chapter 1.1	PS1 Out Due Thu, 09/21, 11:59pm	
week 2	Tuesday, September 12, 2023	Closure of RLs under operations of union and intersection, the product machine	Chapter 1.1		
	Thursday, September 14, 2023	Non-deterministic Finite Automata, closure under concatenation & Kleene star	Chapter 1.2		PA1 Out Thu, 10/12, 11:59pm
week 3	Tuesday, September 19, 2023	Equivalence of NFAs and DFAs, a DFA requiring exponentially more states than an NFA	Chapter 1.2		
	Thursday, September 21, 2023	Regular expressions, conversion from REs to NFAs/DFAs	Chapter 1.3	PS2 Out Due Thu, 10/05, 11:59pm	
week 4	Tuesday, September 26, 2023	GNFAs and conversion from DFAs ➡ REs	Chapter 1.3		
	Thursday, September 28, 2023	Distinguishable & equivalent states in a DFA, Distinguishability Lemma, the Quotient automaton	Hopcroft, et al. 4.4		
week 5	Tuesday, October 3, 2023	State minimization algorithm for DFAs, the Pumping Lemma for regular languages	Hopcroft, et al. 4.4.3 Sipser 1.4		
	Thursday, October 5, 2023	Examples of non-regular languages, using the the Pumping Lemma to prove non-regularity	Chapter 1.4	PS3 Out Due Thu, 10/19, 11:59pm	
week 6	Tuesday, October 10, 2023	Context Free Grammars, parse trees	Chapter 2.1		
	Thursday, October 12, 2023	CFG ambiguity, converting DFAs to CFGs, Chomsky normal form	Chapter 2.1		PA2 Out Due Tue, 11/14, 11:59pm
week 7	Tuesday, October 17, 2023	CFL Closure Properties Pushdown Automata	Chapter 2.2		
	Thursday, October 19, 2023	Review		PS4 Out Due Thu, 11/02, 11:59pm	
week 8	Tuesday, October 24, 2023	MIDTERM EXAM			
	Thursday, October 26, 2023	Pushdown Automata & CFL The Pumping Lemma for CFLs	Chapter 2.2, 2.3		
week 9	Tuesday, October 31, 2023	Examples of non-CFL languages	Chapter 2.3		
	Thursday, November 2, 2023	Turing Machines	Chapter 3.1	PS5 Out Due Thu, 11/16, 11:59pm	
week 10	Tuesday, November 7, 2023	Equivalence of Multi-tape, Nondeterministic and Single-Tape Machines	Chapter 3.2		
	Thursday, November 9, 2023	Decidable Languages, Enumerators	Chapter 4.1		
week 11	Tuesday, November 14, 2023	Undecidable & Unrecognizable Languages	Chapter 4.2		PA3 Out Due Thu, 12/16, 11:59pm
	Thursday, November 16, 2023	Reductions	Chapter 5.1, 5.3	PS6 Out Due Thu, 11/30, 11:59pm	
week 12	Tuesday, November 21, 2023	The Recursion Theorem	Chapter 6.1		
	Thursday, November 23, 2023	Thanksgiving!			
week 13	Tuesday, November 28, 2023	Polynomial Complexity/class P	Chapter 7.1, 7.2		
	Thursday, November 30, 2023	Class NP	Chapter 7.3	PS7 Out Due Thu, 12/14, 11:59pm	
week 14	Tuesday, December 5, 2023	Examples of NP Problems Polynomial Reductions	Chapter 7.3, 7.4		
	Thursday, December 7, 2023	Cook's Theorem NP-Completeness	Chapter 7.4, 7.5		
week 15	Tuesday, December 12, 2023	Polynomial Verifiers Examples of NP-complete Problems	Chapter 7.5		
	Thursday, December 14, 2023	Review			
	TBA	FINAL EXAM			