Week		Content	Reading	HW Assigned	PA Assigned
week1	Tuesday, September 3, 2024	Course policies, introduction to Th. Of Comp. First look at Finite State Automata (FSA)	Chapter 0		
	Thursday, September 5, 2024	Terminology and formal defnition of FSAs state diagrams, regular languages (RL) operations on RLs	Chapter 1.1	PS1 Out Due Thu, 09/19, 11:59pm	
week 2	Tuesday, September 10, 2024	Closure of RLs under operations of union and intersection, the product machine	Chapter 1.1		PA1 Out Tue, 10/08, 11:59pm
	Thursday, September 12, 2024	Non-deterministic Finite Automata, closure under concatenation & Kleene star	Chapter 1.2		
week 3	Tuesday, September 17, 2024	Other regular operations Equivalence of NFAs and DFAs, Subset Construction	Chapter 1.2		
	Thursday, September 19, 2024	NFAs whose DFAs have exponential size, Regular Expressions, Conversion from REs to NFAs/DFAs	Chapter 1.3	PS2 Out Due Thu, 10/03, 11:59pm	
week 4	Tuesday, September 24, 2024	RE to DFA conversion Example GNFAs and conversion from DFAs → REs	Chapter 1.3		
	Thursday, September 26, 2024	Distinguishable & equivalent states in a DFA, Distinguishability Lemma, the Quotient automaton	Hopcroft, et al. 4.4		
week 5	Tuesday, October 1, 2024	State minimization algorithm for DFAs, the Pumping Lemma for regular languages	Hopcroft, et al. 4.4.3 Sipser 1.4		
	Thursday, October 3, 2024	Examples of non-regular languages, using the the Pumping Lemma to prove non-regularity	Chapter 1.4	PS3 Out Due Thu, 10/17, 11:59pm	
week 6	Tuesday, October 8, 2024	Context Free Grammars	Chapter 2.1		PA2 Out Due Tue, 11/05, 11:59pm
	Thursday, October 10, 2024	Parse Trees, CFG ambiguity converting DFAs to CFGs	Chapter 2.1		
week 7	Tuesday, October 15, 2024	Monday Schedule/No class			
	Thursday, October 17, 2024	Review		PS4 Out Due Thu 10/31, 11:59pm	
week 8	Tuesday, October 22, 2024	MIDTERM EXAM			
	Thursday, October 24, 2024	Chomsky's normal form, CFL Closure Properties Pushdown Automata & CFL	Chapter 2.1, 2.2, 2.3		
week 9	Tuesday, October 29, 2024	The Pumping Lemma for CFLs Examples of non-CFL languages	Chapter 2.3		
	Thursday, October 31, 2024	Turing Machines	Chapter 3.1	PS5 Out Due Thu 11/14, 11:59pm	
week 10	Tuesday, November 5, 2024	Equivalence of Multi-tape, Nondeterministic and Single-Tape Machines	Chapter 3.2		PA3 Out Due Tue, 12/03, 11:59pm
	Thursday, November 7, 2024	Decidable Languages, Enumerators	Chapter 4.1		
week 11	Tuesday, November 12, 2024	Undecidable & Unrecognizable Languages	Chapter 4.2		
	Thursday, November 14, 2024	Reductions	Chapter 5.1, 5.3	PS6 Out Due Tue, 11/26, 11:59pm	
week 12	Tuesday, November 19, 2024	The Recursion Theorem	Chapter 6.1		
	Thursday, November 21, 2024	Polynomial Complexity/class P	Chapter 7.1, 7.2		
week 13	Tuesday, November 26, 2024	Class NP	Chapter 7.3	PS7 Out Due Thu, 12/12, 11:59pm	
	Thursday, November 28, 2024	Thanksgiving!			
week 14	Tuesday, December 3, 2024	Examples of NP Problems Polynomial Reductions	Chapter 7.3, 7.4		PA3 Due Due Tue, 12/03, 11:59pm
	Thursday, December 5, 2024	Cook's Theorem NP-Completeness	Chapter 7.4, 7.5		
week 15	Tuesday, December 10, 2024	Polynomial Verifiers Examples of NP-complete Problems	Chapter 7.5		
	Thursday, December 12, 2024	Review on NP-completeness		PS7 Due Due Thu, 12/12, 11:59pm	
	TBA	FINAL EXAM			