Week		Content	Reading	HW Assigned	PA Assigned	
week1	Tuesday, September 2, 2025	Course policies, introduction to Th. Of Comp. First look at Finite State Automata (FSA)	Chapter 0			1
	Thursday, September 4, 2025	Terminology and formal defnition of FSAs state diagrams, regular languages (RL) operations on RLs	Chapter 1.1	PS1 Out Due Thu, 09/18, 11:59pm		2
week 2	Tuesday, September 9, 2025	Closure of RLs under operations of union and intersection, the product machine	Chapter 1.1		PA1 Out Wed, 10/08, 11:59pm	3
	Thursday, September 11, 2025	Non-deterministic Finite Automata, closure under concatenation & Kleene star	Chapter 1.2			4
week 3	Tuesday, September 16, 2025	Other regular operations Equivalence of NFAs and DFAs, Subset Construction	Chapter 1.2			5
	Thursday, September 18, 2025	NFAs whose DFAs have exponential size, Regular Expressions	Hopcroft, et al. 2.3.6 Chapter 1.3	PS2 Out Due Thu, 10/02, 11:59pm		6
week 4	Tuesday, September 23, 2025	Conversion from REs to NFAs/DFAs GNFAs	Chapter 1.3			7
	Thursday, September 25, 2025	Conversion from DFAs ⇨ REs The State Elimination Algorightm for GNFAs	Chapter 1.3			8
week 5	Tuesday, September 30, 2025	Distinguishable & equivalent states in a DFA, Distinguishability Lemma, the Quotient automaton	Hopcroft, et al. 4.4			9
	Thursday, October 2, 2025	State minimization algorithm for DFAs, the Pumping Lemma for regular languages	Hopcroft, et al. 4.4.3 Sipser 1.4	PS3 Out Due Thu, 10/16, 11:59pm		10
week 6	Tuesday, October 7, 2025	Examples of non-regular languages, using the the Pumping Lemma to prove non-regularity	Chapter 1.4		PA2 Out Due Thu, 11/06, 11:59pm	11
	Thursday, October 9, 2025	Context Free Grammars, Leftmost Derivations Parase Trees	Chapter 2.1			12
week 7	Tuesday, October 14, 2025	Monday Schedule/No class				
	Thursday, October 16, 2025	Review		PS4 Out Due Thu, 10/30, 11:59pm		13
week 8	Tuesday, October 21, 2025	**MIDTERM EXAM**				
	Thursday, October 23, 2025	CFG Ambiguity, CFL Closure Properties, Chomsky's normal form,	Chapter 2.1			14
week 9	Tuesday, October 28, 2025	Nondeterministic Pushdown Automata & CFLs	Chapter 2.2			15
	Thursday, October 30, 2025	Equivalence of NPDAs and CFGs	Chapter 2.2	PS5 Out Due Thu, 11/13, 11:59pm		16
week 10	Tuesday, November 4, 2025	The Pumping Lemma for CFLs Examples of non-CFL languages	Chapter 2.3		PA3 Out Due Fri, 12/05, 11:59pm	17
	Thursday, November 6, 2025	Turing Machines	Chapter 3.1			18
week 11	Tuesday, November 11, 2025	Multi-tape Machines & Their 1-Tape Simulators	Chapter 3.2			19
	Thursday, November 13, 2025	Nondeterministic Turing Machines and Their Deterministic Simulators	Chapter 3.2	PS6 Out Due Thu, 11/27, 11:59pm		20
week 12	Tuesday, November 18, 2025	The Universal Machine, Decidable Languages	Chapter 4.1			21
	Thursday, November 20, 2025	Undecidable & Unrecognizable Languages	Chapter 4.2			22
week 13	Tuesday, November 25, 2025	Additional Undecidable Problems Complexity of Turing Machines	Chapter 4.2, 7.1	PS7 Out Due Thu, 12/11, 11:59pm		23
	Thursday, November 27, 2025	Thanksgiving!				
week 14	Tuesday, December 2, 2025	Classes P and NP	Chapter 7.2, 7.3 (definition of class NP is from recommended texbook, page 431, Section 10.1.3)		PA3 Due Due Fri, 12/05, 11:59pm	24
	Thursday, December 4, 2025	Polynomial Reductions	Chapter 7.3, 7.4			25
week 15	Tuesday, December 9, 2025	Cook's Theorem, NP-Complete Problems	Chapter 7.4			26
	Thursday, December 11, 2025	Review		PS7 Due Due Thu, 11/11, 11:59pm		27
	Saturday, December 13, 2025	FINAL EXAM	10:00	Burchard 111		