COMP 330 Fall 2015: Lecture Schedule

Prakash Panangaden

Week 1	Lecture 1	Sept 8	Introduction, basic maths	P, *
	Lecture 2	Sept 10	Deterministic finite automata	P, 1.1; A1 out
Week 2	Lecture 1	Sept 15	Nondeterministic finite automata	P, 1.2
	Lecture 2	Sept 17	Regular expressions, Kleene's theorem	P, 1.3
Week 3	Lecture 1	Sept 22	Minimization	P, *
	Lecture 2	Sept 24	The Myhill-Nerode theorem	P, *; A1 due, A2 out
Week 4	Lecture 1	Sept 29	Brzozowski's algorithm and duality	P, *
	Lecture 2	Oct 1	Learning an automaton	K, *
Week 5	Lecture 1	Oct 6	Special topic	K, *
	Lecture 2	Oct 8	The pumping lemma	P, 1.4; A2 due, A3 out
Week 6	Lecture 1	Oct 13	The pumping lemma	P, 1.4
	Lecture 2	Oct 15	**MIDTERM**	
Week 7	Lecture 1	Oct 20	Context-free languages	P, 2.1
	Lecture 2	Oct 22	Pushdown automata	P, 2.2; A3 due, A4 out
Week 8	Lecture 1	Oct 27	The pumping lemma for CFLs	P, 2.3
	Lecture 2	Oct 29	Using the pumping lemma	P, 2.3
Week 9	Lecture 1	Nov 3	Models of computation	P, 3.1, 3.2
	Lecture 2	Nov 5	Basic computability theory	P, * 5.1; A4 due, A5 out
Week 10	Lecture 1	Nov 10	Reducibility	P, *,5.1
	Lecture 2	Nov 12	Reducibility, Rice's theorem	P, 5.1,5.2,5.3
Week 11	Lecture 1	Nov 17	Special topic	K
	Lecture 2	Nov 19	Undecidable problems about CFGs	P, 5.1; A5 due, A6 out
Week 12	Lecture 1	Nov 24	The Post Correspondence Problem	P, 5.2
	Lecture 2	Nov 26	Logic and undecidability	P, *
Week 13	Lecture 1	Dec 1	The recursion theorem	P, 6.1
	Lecture 2	Dec 3	Review for the final	P; A6 due

The section numbers on the right correspond to sections of the book. A $*$ indicates that the topic is not in the book. Notes will be provided on the website for topics that are not in the book. The letter **P** means that I will be giving the lecture, **K** indicates that some else will give the lecture.