CS 311 Computational Structures - Fall 2009 - Schedule

All aspects of this schedule are subject to change.

IALC = John Hopcroft, Rajeev Motwani, and Jeffrey D. Ullman, *Introduction to the Automata Theory, Languages, and Computation, 3rd ed.*, Pearson Addison-Wesley, 2007.

Assigned readings should be read *before* the associated lecture date.

date	*due*	reading	*topics*
Sep. 29		IALC 1	Problems; Languages; Machines; Undecidability
Oct. 1		IALC 2.1–2	Finite Automata and Regular Languages
Oct. 6	HW1	IALC 2.3,2.5	Non-deterministic Finite Automata
Oct. 8		IALC 3.1–3	Regular Expressions
Oct. 13	HW2	IALC 3.4,4.2.1–4.2.2,4.4	Properties of Regular Languages and Expressions
Oct. 15		IALC 4.1	Non-regular languages; Pumping Lemma
Oct. 20	HW3	IALC 5.1–2,5.4	Context-free Languages
Oct. 22		IALC 6.1–2	Push-down Automata
Oct. 27	HW4		Review
Oct. 29			**Midterm (in-class)**
Nov. 3		IALC 6.3	Equivalence of PDA's and CFG's
Nov. 5		IALC 7.1-3	Normal Forms and Pumping Lemma for CFL's
Nov. 10	HW5	IALC 8.1-3	Turing machines and the Church-Turing Thesis
Nov. 12		IALC 8.4-5	Turing-machine variants
Nov. 17	HW6	TBD	Other models of computation
Nov. 19		IALC 9.1–3	Decidable and Undecidable Problems
Nov. 24	HW7	IALC 10.1	Computational Complexity
Nov. 26			**Thanksgiving Holiday (no class)**
Dec. 1	HW8	IALC 10.2-3	Cook's Theorem
Dec. 3			Review
Dec. 8			**Final Exam** (from **5:30-7:20pm)**