Instructor: L. T. Watson, 2000 Torgersen, 231-7540, ltw@cs.vt.edu
Office Hours: 10:00–11:00 MWF in 122 McBryde, and by appointment in 2000 Torgersen.


Topics Covered: Logic circuits, Boolean function normal forms, prefix computations, arithmetic, circuit complexity, finite-state machines, random-access machines, Turing machines, simulation, pushdown automata, regular and context-free languages, models of computability, reducibility and unsolvability, recursive function theory, parallel computation, space-time tradeoffs.

Grading: FINAL GRADE will be the average of two in-class exams (50%), a final examination (25%), and homework and class participation (25%).


References:
Homework Assignments

All problems are from the text unless otherwise indicated. Point values are indicated in parentheses; optional extra credit problem point values are indicated in brackets.

Due 08/28/09: 1.3(1), 1.5(2), 1.10(5), 1.13(2).
Due 09/04/09: 1.14(1), 1.18(1), 1.19(1), 1.21(2).
Due 09/11/09: 2.3(2), 2.5(2), 2.8(6), 2.9(5).
Due 09/18/09: 2.11(1), 2.12(2), 2.13(2).
Due 10/02/09: 2.17(5), 2.18(10), 2.20(2), 2.26(3).
Due 10/30/09: 3.23(5), 3.30(5), 3.34(5).
Due 11/06/09: 4.5(2), 4.9(4), 4.17(4), 4.18[10].
Due 12/07/09: 5.12[5], 5.13[5], 5.18(2), 5.24(3), 5.25(10).