Instructor: L. T. Watson, 630 McBryde, 231-7540, ltw@cs.vt.edu
Office Hours: 11:00–12:00 MWF, and by appointment.

Prerequisites: Math 3134 or Math 3034.


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%). All questions regarding grades must be raised within three days of the date the assignment is returned.

Final Exam: 07:45–9:45am Monday, May 6, 2002.

References:


Homework Assignments

All problems are from the text unless otherwise indicated.

Due 1/18/02: 1.3, 1.5, 1.10, 1.13.
Due 1/25/02: 1.14, 1.18, 1.19, 1.21.
Due 2/1/02: 2.3, 2.5, 2.8, 2.9.
Due 2/8/02: 2.11, 2.12, 2.13.
Due 2/22/02: 2.17, 2.18, 2.20, 2.26.
Due 3/15/02: 3.4, 3.7, 3.17, 3.20.
Due 3/29/02: 3.23, 3.30, 3.34.
Due 4/5/02: 4.5, 4.9, 4.17, 4.18.
Due 4/12/02: 4.22, 4.25, 4.32, 4.47.
Due 4/29/02: 5.13, 5.17, 5.18, 5.24.