MAT/CSI 350 — Theory of Computation, SPRING 2007

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Office Hours: M 1:30-2:30, TTh 11:30-12:20
Class meetings: DUNNING N106 MWF 11:30AM-12:20PM
Text: *Introduction to the Theory of Computation, Second Edition*, by Michael Sipser

Overview: The purpose of this course is to dive into the fundamentals of computer science. By understanding the higher order concepts of languages, computability and complexity, it allows us to understand the types of problems that are tractable and intractable in computer science.

Topics: We will cover regular languages, finite automata, regular expressions, context-free languages, context-free grammars and even pushdown automata. Important topics in the course will also include decidability, the halting problem, time complexity, and several classes of problems (such as P, NP, and NP-complete).

Advising:MAT/CSI 350 is an advanced course in computer science with heavy theoretical background. Strong programming skills and problem solving ability are assumed and expected, although the course is not designed to enhance programming ability. CSI 202 and MAT/CSI 240 are prerequisites for this course.

Grading: There will be three exams worth 25% each of your final grade. The final exam will count as 25% of your final grade. Homework will not be collected, but is a very important portion of this course.

Exams: The exams will be held on February 21, March 30, and April 27. The final exam will be administered during its scheduled slot during final exam week. An absence on the day of an exam will result in a grade of a 0. Except in cases of extreme emergency, exams must be taken on the day the exam is administered. Before a make-up test is scheduled, documentation of the extreme emergency must be given. Make-up exams for tests missed due to an extreme emergency will be arranged for a time that is mutually convenient for the student and Dr. Ramsey.

Attendance: Attendance will not be taken. It is your responsibility to obtain assigned homework, announcements and class notes from a missed course. It is important that you attend every class. As a matter of courtesy, students are expected to inform Dr. Ramsey of the reason for any absence.

Academic Honesty: You are always subject to the Honor Code of Washington College. You may discuss concepts with others, but work is to be done on your own (unless otherwise designated). If you are unsure if something is considered *cheating*, simply ask. As always, if you have questions, feel free to email or stop by my office.

Accommodations: If you have a special accommodation/need that has been reported to the college, please let me know discretely as soon as possible, so that I can work to meet your accommodation.

Suggestions: Form a study group and work together on problems constantly. To become a good programmer and problem solver, you must work on many problems. Attempt problems that aren't assigned to help you learn the material. If you need help, please see me, peers or the math center for assistance. There are many resources, so there is no excuse for not using them.