

## CSI 350 – Theory of Computation – Fall 2008

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**Office Hours:** M 1:30-2:30, T 11:30-12:45 (Cove), Wednesday 10:30-11:20  
**Class meetings:** TR 1:00-2:15 - GLDS 117  
**Text:** Introducing the Theory of Computation by Wayne Goddard  
**Web:** <http://ramsey.washcoll.edu/class/08FALL>

**Overview:** This course is a theoretical examination of the fundamentals of computer science. By understanding higher order concepts of languages, computability and complexity, a programmer may understand when confronted with a tractable or intractable problem.

**Topics:** This course covers a wide variety of language and machine types including: regular languages, context-free languages, regular expressions and finite automata. Other machines such as pushdown automata and the Turing machine will also be explored. Topics of major importance in computer science such as decidability, the halting problem, time complexity and the class of problems known as P and NP will also be considered.

**Advising:** Theory of Computation is a required course in the CSI major. You must have completed CSI 202 and CSI 240 to take this course.

**Grading:** Your grade consists of three exams, one final exam, and assignments. You must pass each exam and have a passing average on assignments to pass the course. Each exam is worth 20% of your final grade. Coursework/homework comprises the last 20% of your final grade.

**Assignments and Programming:** Assignments largely consist of programs completed outside of class, but may include other assigned tasks inside and outside of class. For example, oral presentations during class and specific written assignments outside of class. For programming assignments, credit is given only for programs which compile without errors, execute properly, and are not late. Late homework will receive a grade of 0, but will be collected for mark-up. Assignments are due at the beginning of class on the assigned due date. Programming assignments are time stamped by the server we will be using, so be sure not to alter your program after the hand-in time.

**Exams:** Tentatively, exams will be held on 9/23, 10/21 and 11/18. 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:** Other than missed classwork, lectures and notes, I assign no penalty for absences. It is your responsibility to obtain assigned homework, announcements and class notes from your fellow students. Talk to classmates for class notes. It is important that you attend every class, as there is certainly a correlation between grades and attendance. 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. SHARING CODE OR GIVING CODE IN ANY WAY IS CHEATING!

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

**Suggestions:** To become a good programmer and problem solver, you must work on many problems. 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.