

Course Information

January 18, 2000

Handout 1

Prerequisites: CS 241 and CS 201 (or equivalent background).

Time/Place: Tuesday and Thursday 1:00-2:30pm, Crow 206

Professor: Dr. Sally A. Goldman (sg@cs), Jolley 538, x5-7545

Office Hours: Since office hours will be adjusted to meet your needs, see the course homepage (<http://classes.cec.wustl.edu/~cs441>) for up-to-date office hours.

TAs: John Heitman (jwh1@cs), Mike Moran (mm4@cec) and Ian Simon (is2@cec).

Text Books: The text book for this course is:

Thomas H. Cormen, Charles E. Leiserson, and Ronald L. Rivest. *Introduction to Algorithms*. MIT Press/McGraw-Hill, 1990.

Homework Assignments: There will be 6 homework assignments that are divided up into the following two sections:

A core section that contains the problems required by *all* students enrolled for credit in either CS 441T or CS 539T.

An advanced section in which the solutions involve applying the algorithms and techniques you have been taught in non-obvious ways. Thus these problems often involve significant thought beyond just “absorbing” the material covered in class. It is these problems that will enable you to really work with the techniques and learn different ways in which they can be applied. Also, these problems will help you to understand some of the topics covered in more depth than required to just solve the core problems.

All problems in this section are *required only* for students registered in CS 539T. They are extra credit problems for CS 441T students.

Some of the assignments will have a programming problem as part of the core section (using the language of your choice).

You are strongly advised to get started early so that you can get help if needed! These homeworks are not designed to be done in just a few days. I expect you to spend 10-14 hours for a two week homework assignment — It will be very frustrating if you try to do this all in the last few days. For some problems you may need to think about them a while and then set them aside for a little.

The assignments are due at the beginning of class on the given due date. **No late assignments will be accepted.**

Exams: There will be two in class exams and a final exam. There will be additional problems on the CS 539T version of the exam. All exams will be closed book but you may bring a crib sheet.

Policy on Collaboration: Each homework problem that you submit should be the result of your own effort. For *ALL* homework problems you *ARE NOT* permitted to consult the solutions from another student (former or current), or copy/consult the provided solutions from previous years.

In solving your homework problems, you may discuss approaches to solving the homework problems with your classmates, *HOWEVER*, you are to work out all details of any solutions discussed and write up the solution completely on your own. In particular, when working with a student on an assigned homework problem you should do so verbally – Nothing should be written. This will keep your discussion at a high-level so that everyone can work out the details on their own. Also you must clearly acknowledge anyone (besides me or a class TA) with whom you discussed any problem and say briefly what you discussed.

Violations of any of the above rules will be dealt with harshly! These homework problems are designed to help you learn the material being taught. Being told the solution and understanding it is VERY different from working through the process of actually finding a solution. If you do not take an active role in the process of solving the homework problems, then you won't get much out of it, hence you won't learn the material and you are unlikely to pass the exams.

Switching Between CS 441T and CS 539T: Through April 17 you may switch from CS 539T to CS 441T, but *not* the other way. Thus if you are undecided I encourage you to begin by doing the required work for CS 539T and see how that goes for you.

Any of the advanced problems done by CS 441T students will be treated as extra credit and thus could improve your grade in borderline cases.

Homework Grading: Some of the core homework problems will be graded by the class under the guidance of the teaching assistant. While it is important that you can design and analyze an algorithm, it is equally important that you can evaluate an algorithm written by someone else and verify its correctness and stated time complexity. Each student can volunteer to grade one problem (of one problem set). To grade a problem you must first solve it and then verbally go over your solution with me. The student graders will be selected on a first-come-first-served basis. Based on the quality of your grading you will receive up to twice the point value for the problem you grade.

Computation of the Final Grade: An overall percentage will be computed by:

$$\frac{\text{HW pts received}}{\text{HW pts possible}} \times 0.5 + \frac{\text{Exam 1 pts received}}{\text{Exam 1 pts possible}} \times 0.15 + \frac{\text{Exam 2 pts received}}{\text{Exam 2 pts possible}} \times 0.15 + \frac{\text{Final Exam pts received}}{\text{Final Exam pts possible}} \times 0.2$$

An “A” will be awarded for an overall percentage of 85% or better, a “B” is given for an overall percentage between 75% and 84%, a “C” is given for an overall percentage between 65% and 74%, a “D” is given for an overall percentage between 55% and 64%. No credit (i.e. an “F”) will be given an overall percentage less than 55%.