

CMSC 451: Design and Analysis of Computer Algorithms

Summer II 2009

<http://www.cs.umd.edu/class/summer2009/cmsc451>

Instructor: Sorelle Friedler. Email: sorelle@cs.umd.edu. Office hours: MTuWThF 11:00 AM – 12:00 PM. Location: TA room. Office hours may end early if no students are present. Let the instructor know in advance if you plan to come towards the end of the time period.

Class Time: MTuWThF 9:30 – 10:50 AM. CSIC 1122

Text: Required: *Algorithm Design*, by Jon Kleinberg and Éva Tardos, Addison-Wesley, 2005. **Recommended:** *Introduction to Algorithms*, (2nd Edition), by T. Cormen, C. Leiserson, R. Rivest, and C. Stein, McGraw Hill, 2002.

Prerequisites: CMSC 351. More specific topics will be discussed on the first day of class.

Course Work: *See calendar for tentative deadlines. All weights below are tentative.*

Homework (20%): There will be 5 homework assignments. They are due at the beginning of class on the day they are due. They will not be accepted by email unless arrangements are made with the instructor in advance due to special circumstances. Homework will be accepted one day late with a reduction of 10% of the grade. Homework will not be accepted more than one day late. Extensions may be granted in exceptional circumstances, but they must be approved before the due date.

Homework assignments may be completed by a group of students working together. In this case, all students' names must be on the handed in assignment, and all students will receive the same grade. High-level ideas may be discussed with students outside your group, but detailed explanations should only be discussed with other group members (a good rule of thumb is that if it requires written clarification, it is detailed). All outside sources should be clearly cited.

Homework should be easily readable, ideally typeset. LaTeX is a free system for typesetting mathematical writing that is worth learning. The instructor would be happy to answer LaTeX questions and many resources are available online.

When writing up homework solutions, make sure that your solution is not only correct but clearly explained. Some grading may be done based not only on correctness but on the clarity and elegance of your solution.

Group Project (20%): There will be one group project, which students will have about three weeks to complete in groups of two or three. The project will not be accepted for any credit after the deadline. All members of the project group will receive the same grade. More details will be distributed about three weeks before the deadline.

Exams (Midterm 25%, Final 35%): Exams are scheduled during class time on the days shown on the calendar. Any conflicts should be discussed with the instructor within the first week of the class. Make-up exams will only be given for university approved reasons.

Attendance and Participation: Attendance at, and active participation in, all class sessions is expected of all students. Participation will be taken into account in awarding of final grades for students who are “on the edge” between two grades. For example, a student with a B+/A- average and a strong attendance and participation record would receive an A-, while a student with a weak record would receive a B+.

Academic Integrity: Issues of academic dishonesty will be taken extremely seriously. All sources (whether people, books, websites, etc.) must be clearly cited on homework or project assignments. Please refer to the university guidelines for a list of possible consequences of academic dishonesty.