

DESIGN AND ANALYSIS OF ALGORITHMS

Spring 2018

Instructor: Jamie Morgenstern	Time: M, W 15:00 – 16:15
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Course Pages:

1. <http://jamiemorgenstern.com/teaching/S18>
2. <http://piazza.com/gatech/spring2018/cs6550a/home>

Office Hours: After class, or by appointment, or post your questions on Piazza.

Objectives: This course is primarily designed for graduate students who wish to pursue a career in theoretical computer science. It will focus on both combinatorial and programmatic solutions to problems fundamental to TCS.

Prerequisites: An undergraduate-level understanding of probability, statistics, graph theory, algorithms, and linear algebra is assumed.

Grading Policy: Homework (40%), Participation (20%), Final Project Write-up (20%), Final project presentation (20%).

Course Policy:

- Please sign up for Piazza. See <http://piazza.com/gatech/spring2018/cs6550a>.
- The problem sets for this course will have exercises, which are for your enrichment and not to turn in, and problems, which will be graded. You may collaborate on these homeworks with anyone you wish. **All sources and collaborations should be cited/noted in your homework submissions.**
- A large component of the grade in this class will be a course project. A course project can take one of several forms: reading and digesting a recent algorithms publication and posing interesting directions you find during this exercise, or formulating your own algorithms question, writing a related work section of a paper, and proposing techniques or solutions to the problem. The latter approach can use previous work as its basis, or be based on a student's interest. This course project can be done independently or in pairs.

Class Policy:

- Regular attendance is expected.

Academic Honesty: It is expected that the students in this class cite their sources. If it comes to my attention that sources are not being cited, the student(s) involved will receive a 0 on that assignment; if it happens again the student will fail the course and be reported to the university.