CS 660 (Algorithms) Syllabus

Instructor/TA Information

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Course Material

Textbook: Algorithms by Jeff Erickson. The book is available online for free at
`http://jeffe.cs.illinois.edu/teaching/algorithms/`.
You can also buy a hard copy on Amazon for about $30 (some additional chapters are not in the hard copy).

Please do the reading assignment before class. The reading assignment for each lecture can be found on the course's Blackboard.

Topics

Some main topics include divide and conquer, dynamic programming, greedy algorithms, graph algorithms (shortest paths, bipartite matching, maximum flow, etc.), NP-Completeness and approximation algorithms, and randomized algorithms.

Prerequisites

The basic requirement is that you have taken an introduction course in data structures and algorithms (e.g., CS 560). A good background in algebra and discrete math is also strongly encouraged.

Exams and Grading

There will be 2 exams and 5 homework. The course grade is broken down as follows: midterm (25 %), final (35 %), and homework (40 %). The final exam schedule can be found on the university website.

The lowest score homework will be dropped. No late homework will be accepted. If you need to do make-up exams, please notify me in advance.

Homework will be posted and submitted on Blackboard. You are strongly encouraged (but not required to) to typeset your homework. LaTeX is a scientific document preparation system; most CS technical publications are prepared using this tool. Great editors exist on most platforms. Some recommend TexShop for Mac. TeXstudio is a good cross-platform editor. The short and not-so-short introduction to Latex are (`https://userpages.umbc.edu/~cheyneh/pdfs/gsrd_handout.pdf` and `https://tobi.oetiker.ch/lshort/lshort.pdf`).

Academic honesty

The University adheres to a strict policy regarding cheating and plagiarism.
`http://go.sdsu.edu/student_affairs/srr/cheating-plagiarism.aspx`

Do not search for solutions to the homework online. You may discuss the homework with other students. However, you must write up the solutions on your own. Cheating and plagiarism will be dealt with according to the university policy.

These activities will not be tolerated in this class. Become familiar with the policy and what constitutes plagiarism. Any cheating or plagiarism will result in failing this class and a disciplinary review by the University. These actions may lead to probation, suspension, or expulsion. Examples of Plagiarism include but are not limited to:

- Using sources verbatim or paraphrasing without giving proper attribution (this can include phrases, sentences, paragraphs and/or pages of work)
- Copying and pasting work from an online or offline source directly and calling it your own
- Using information you find from an online or offline source without giving the author credit
- Replacing words or phrases from another source and inserting your own words or phrases
- Submitting a piece of work you did for one class to another class

Students with Disabilities

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Ability Success Center at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact the Student Ability Success Center as soon as possible. Please note that accommodations are not retroactive, and that I cannot provide accommodations based upon disability until I have received an accommodation letter from Student Ability Success Center. Your cooperation is appreciated. Starting Fall 2019 all accommodated exams will be booked through SASC Connect, an online portal for Student Ability Success Center. Paper booking forms will not be accepted.