

Analysis of Algorithms, CS583-004, Spring 2020

Fei Li*

- LECTURE TIME

January 21-May 13: Wednesday: 7:20pm-10:00pm

- LOCATION

Blueridge Hall 129

- COURSE WEBPAGE

GMU Blackboard CS583

- CREDIT

3

- TEXTBOOK

Introduction to Algorithms, 3rd Edition, by Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein, 2009.

- PREREQUISITES

Grade of C or better in CS483

- OFFICE HOURS

10:00am-12:00pm Tuesday

- TA: TBD

- **email:** TBD
- **office:** TBD, Engineering Building
- **office hours:** TBD

- GRADING POLICY:

- **quizzes** (30%)
- **assignments** (30%)
- **a final exam** (40%)
- [90, 100] : *A*; [80, 89] : *B*; [70, 79] : *C*; [60, 69] : *D*; [0, 59] : *F*

- SYLLABUS (to be updated over time)

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	Dates	Topics	Reading assignments
1	January 22	Chapter 1 + Chapter 2 + Chapter 3	introduction asymptotic notation
2	January 29	Chapter 4	divide-and-conquer
3	February 5	Chapter 5	
4	February 12	Chapter 6 + Chapter 7	heap-sort quick sort
5	February 19	Chapter 8 + Chapter 9	lower-bound order statistics
6	February 26	Chapter 15	dynamic programming
7	March 4	Chapter 16	
	March 11 (Spring break)		
8	March 18	Chapter 17	amortized analysis list scheduling
9	March 25	Chapter 22	greedy graph algorithms
10	April 1	Chapter 23	greedy graph algorithms
11	April 8	Chapter 24	shortest-path I
12	April 15	Chapter 25	shortest path II shortest path III
13	April 22	Chapter 26	max flow applications
14	April 29	Review	
	May 6 (7:30pm-10:15pm)	Final exam	

- POLICIES

Please note that all coursework is to be done independently. Plagiarizing the homework will be penalized by maximum negative credit and cheating on the exam will earn you an F in the course. See the GMU Honor Code System and Policies at George Mason University Honor Code.

You are encouraged to discuss the material BEFORE you do the assignment. As a part of the interaction you can discuss a meaning of the question or possible ways of approaching the solution. The homework should be written strictly by yourself. In case your solution is based on the important idea of someone else please acknowledge that in your solution, to avoid any accusations.

- ACADEMIC HONESTY

The integrity of the University community is affected by the individual choices made by each of us. GMU has an Honor Code with clear guidelines regarding academic integrity. Three fundamental and rather simple principles to follow at all times are that: (1) all work submitted be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment, ask for clarification. No grade is important enough to justify academic misconduct.

Plagiarism means using the exact words, opinions, or factual information from another person without giving the person credit. Writers give credit through accepted documentation styles, such as parenthetical citation, footnotes, or endnotes. Paraphrased material must also be

cited, using MLA or APA format. A simple listing of books or articles is not sufficient. Plagiarism is the equivalent of intellectual robbery and cannot be tolerated in the academic setting. If you have any doubts about what constitutes plagiarism, please see me.

- DISABILITY STATEMENT

If you have a learning or physical difference that may affect your academic work, you will need to furnish appropriate documentation to the Disability Resource Center. If you qualify for accommodation, the DRC staff will give you a form detailing appropriate accommodations for your instructor.

In addition to providing your professors with the appropriate form, please take the initiative to discuss accommodation with them at the beginning of the semester and as needed during the term. Because of the range of learning differences, faculty members need to learn from you the most effective ways to assist you. If you have contacted the Disability Resource Center and are waiting to hear from a counselor, please tell me.