

Analysis of Algorithms, CS483-002, Spring 2019

Fei Li*

- LECTURE TIME
January 22-May 21: Tuesday, Thursday: 10:30am-11:45am
- LOCATION
Alan and Sally Merten Hall, 1200
- COURSE WEBPAGE
GMU Blackboard CS483
- CREDIT
3
- TEXTBOOK
Algorithm Design, by Jon Kleinberg and Eva Tardos, 2006.
- PREREQUISITES
Grade of C or better in CS310, CS330 and MATH125
- OFFICE HOURS
12:00pm-2:00pm Tuesday
- TA: XIAOSHENG LI
 - **email:** xli22@masonlive.gmu.edu
 - **office:** TBD, Engineering Building
 - **office hours:** 4:00pm-6:00pm, Thursdays
- TA: KAZI KABIR
 - **email:** kkabir@masonlive.gmu.edu
 - **office:** TBD, Engineering Building
 - **office hours:** 1:00pm-3:00pm, Tuesdays
- TA: KEVIN GERARD ANDREWS
 - **email:** kandrew@masonlive.gmu.edu

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- **office:** TBD, Engineering Building
- **office hours:** 4-8 hours per week (office hours only)

- GRADING POLICY:

- **assignments** (60%)
- **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)

Lectures	Topics	Chapters	Reading assignments
1	introduction	1	representative problems
2	some background		
3	basic	2	basic
4	basic		
5	graph	3	graphs
6	graph		
7	greedy	4	greedy I
8	greedy		
9	greedy		greedy II
10	greedy		
11	divide and conquer	5	divide and conquer I
12	divide and conquer		
13	divide and conquer		divide and conquer II
14	divide and conquer		
17	dynamic programming	6	dynamic programming I
18	dynamic programming		
19	dynamic programming		dynamic programming II
20	dynamic programming		
21	dynamic programming		
22	dynamic programming		
23	network flows	7	network flow I
24	network flows		
25	network flows		network flow II
26	network flows		
27	network flows		network flow III
28	network flows		
	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.