CS583 Analysis of Algorithms I - 78039 - 002

Fei Li[*]

- LECTURE TIME

  August 27, 2018 - December 19, 2018: **Tuesday: 4:30pm - 7:10pm**

- LOCATION

  James Buchanan Hall D023

- COURSE WEBPAGE

  GMU Blackboard CS583

- CREDIT

  3

- TEXTBOOK

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

- PREREQUISITES

  Grade of C or better in CS483

- OFFICE HOURS

  2:00pm - 4:00pm, Mondays

- TA: TBD

  - **email**: TBD
  - **office:** TBD
  - **office hours:** TBD

- GRADING POLICY:

  - **assignments** (40%)
  - **a midterm exam** (30%)
  - **a final exam** (30%)
  - $[95, 100] : A+; [90, 94] : A; [85, 89] : A-; [80, 84] : B+; [75, 79] : B; [70, 74] : B-; [65, 69] : C; [0, 64] : F$

- SYLLABUS (to be updated over time)

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Date	Chapter	Additional Learning Material
08/28	3	Asymptotic notation
09/04	4	Divide and conquer
09/11	5	Probabilistic analysis
09/18	7	Quicksort
09/25	8	Lower bound
10/02	9	Order statistics
10/09 (Fall break)		
10/16	Midterm exam	
10/23	15	Dynamic programming
10/30	16	Greedy algorithms
11/06	17	Amortized analysis I
		Amortized analysis II
11/13	22	Graph algorithms
11/20	23	Minimum spanning tree
11/27	24	Shortest paths I
		Shortest paths II
12/04	26	Maximum flow
12/18 (4:30pm-7:15pm)	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.