G22.1170 Fundamental Algorithms, Spring 2017

Time	TBA
Place	ciww109
Instructor	Prof. Joel Spencer, ciww 829
Phone	x8-3219
email	spencer@cs.nyu.edu
Office Hours	Tuesday 3-5
Recitation	as per schedule (mandatory!)
Recitation Times	see schedule
Recitation Places	see schedule
Text	Introduction to Algorithms by Cormen, Leiserson, Rivest, Stein
Midterm Exam	March 27 (tentative!) , in class
Final Exam	Monday, May 15, 5:10-7:00 p.m.
Final Exam	ciww 109 (regular classroom)

There will generally be one assignment per week, made available electronically (on the website) around classtime and due the next week. Submission of assignments (unless clearly marked otherwise) is *mandatory.*

Collaboration on the assignments is *encouraged.* Each student must hand in the assignment individually and should write out the solutions in their own words. At the end of the assignment the collaborations must be listed. E.g.: Collaboration with Alan Turing and William Gates.

The final grade will be based 60% on the Final Exam, 30% on the Midterm and 10% on the Homework. But grades are not determined by an algorithm, subjective factors such as class participation (in both lecture and recitation) are a "fudge factor" that can carry great weight.

The Final Exam date is FIXED by the University well in advance. You MUST NOT arrange your flight home for an earlier date!

On the next page is a *rough* outline of the course. We expect to cover these topics but not necessarily in the precise order indicated. In addition there is likely to be some material in class that is not in the text. Students are responsible for all such material.

Weekly Schedule

Note that this schedule may be adjusted during the term. Any such adjustments will be noted on the website.

CLASS	TOPIC	CHAPTER
Jan 23	Heaps	6
Jan 30	Sorts	7,8
Feb 6	Θ, Ω, o and O	3
Feb 13	Divide and (sometimes!) Conquer	4
Feb 20	NO CLASS!	Thanks George
Feb 27	Hashing	11
March 6	Binary Search	12
March 13	NO CLASS!	Spring Break
March 20	Dynamic Programming	15
March 27	MIDTERM	(Tentative!!)
April 3	Greed is Good	16
April 10	Graph Search	22
April 17	Min Spanning Trees	23
April 24	Number Theory	31
May 1	P, NP and all that	34
May 8	Shortest Paths	24.2,3