## Cmp Sc 5130Advanced Data Structures and AlgorithmsFall 2013

Instructor	Sanjiv K. Bhatia
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url	http://www.cs.umsl.edu/~sanjiv/classes/cs5130
Office Hrs	T Th 12:30pm – 4:00pm
	Any other time by appointment
Prerequisites	CS 3130, or consent.
Textbooks	Cormen, Leiserson, Rivest, and Stein. Introduction to Algorithms. McGraw Hill.

/objectives

- Introduction and review
- Divide and Conquer
- Greedy Methods
- Dynamic Programming
- Traversal and Search Techniques
- Backtracking
- Branch and Bound
- NP-Completeness
- Approximation Algorithms

**/etc/policy**: I'll expect you to be present in most of the classes. I will not be taking attendance but if you start missing too many classes, please take responsibility for your absence, specially when it concerns tests and homeworks. When you come to class, you must change your cell phones to silent mode. In the tests, the cell phones must be completely switched off. If you are more than ten minutes late, please try to not disrupt the class. I'll penalize you by one latter grade for habitually coming late to class (more than five times I notice you coming late).

The grade will be based on programming and homework assignments and two tests. Each assignment must be meticulously documented and should clearly identify its purpose, author, and date. You are free to do the projects in C, C++, or Java, but the programs must execute on admiral. Tests are non-comprehensive but may have some overlap of material from one test to the next. All tests will be open book and open notes but no electronic devices will be permitted. If you miss any test or assignment without making prior arrangements, you will have a zero. I will not give any make up tests. The distribution of grades will be as follows:

Assignments	60%
Two tests	20% each

Anyone desiring an EXC grade after October 31, 2013 must be passing the course at that point to get EXC.

/etc/exam\_dates

Test 1 October 10, 2013 Test 2 December 05, 2013

There is no final exam. In case of class cancellation due to weather-related orother campus emergency, the test will be held in the following class period. For the second test, if the campus is closed on December 05, the alternative date will be the December 06, possibly in the conference room of the department.

/etc Failure to hand in any assignment will result in an automatic zero for that assignment. If some student is unable to hand in an assignment by the deadline, he/she must discuss it with me *before* the deadline. I'll encourage you to talk to other students

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regarding homework but you should not collaborate to the extent that two submissions are copies of each other. If you are found copying an assignment (from another student or internet), or if your submission has *unreasonable similarity* to another submission, you get a zero for that assignment automatically. A second offense will be reported to the University officials and students involved will face serious consequences. I may ask you to come to my office and explain your code to me; in case you are not able to explain the code to my satisfaction, I'll assign you a zero in that project.

If you have any disability that requires an accommodation (as per UMSL policy), you must notify me in advance. If you cannot attend the class due to a religious holiday or a university-sanctioned event, please let me know in advance as well. In case you are down with flu, please stay absent from the class till you recover, and contact me via phone or email. I'll try my best to make accommodation for you in that case.

/etc/note: You have an account on one of the Unix machines on campus and you should use it for all assignments. Any assignment that fails to run on the Unix machines automatically gets a zero. You can communicate with all the students in the class using the email in MyGateway

I do not insist on attendance but if you miss a class, you are responsible for the content covered in that class. It is not fair towards me if you miss classes and then come over to my office asking me tons of questions about the class you missed.

Any unsigned email and email not in plain text will go unanswered by me. Please do not send me any attachments without talking to me first.