CS-60 Algorithms
Spring 2015 Class Schedule

Instructor Information
• M. Tarokh, Ph.D., Professor of Computer Science.
• Office location and email: GMCS 541, mtarokh@mail.sdsu.edu
• Office Hours: M 15:30-17:30; W 12:00-14:00

Course Material
• Lecture Notes: M. Tarokh, “Algorithms”, Available on class webpage.

Topics
• Algorithm types, Brute force and exhaustive search algorithms
• Greedy algorithms and scheduling problems
• Divide and conquer algorithms and their analysis
• Dynamics programming
• NP Problems and approximation algorithms

Students Learning Outcomes
• Ability to propose alternative solutions for an algorithmic problem.
• Ability to analyze potential solutions using different algorithmic approach listed under Topics above.
• Ability to select the best (or at least a feasible) solution with respect to computational complexity and implementation issues.
• Ability to select a suitable data structure for the solution chosen above.
• Ability to determine the computational efficiency of the solution by drawing graphs for different cases, and modifying the solution if needed.

Prerequisites
• Good knowledge of data structures (especially trees, graphs and their algorithms), and algebra/discrete math.
• Programming skills in either Java or C++

Computer Languages
• I will use C++ and pseudo-code for instruction, exam questions, etc.
• You can program in either C++ or Java for assignments.
• The emphasis of the course is on problem solving and algorithm design.

Assignments
• There will be five assignments.
• The emphasis of the assignments is on problem solving, coming up with appropriate algorithms, justifying the proposed solution based on reasoning and analysis.
• Each person is to do all the work on their own.
• The assignments are to be handed in the specified format, on the date specified, at the beginning of the class.

Course Material:
• The course material is available on SDSU Blackboard.

Course Assistant and Hours
• These will be announced during the second week of the semester. Please check the class website (Blackboard).

Exams and Grading
- There will be two mid term exams and the final. All exams are comprehensive.
- If you miss one mid term exam due to serious verified illness, your final exam score will be used in lieu of the missed test.
- You will not pass the course if you miss both mid term exams, the final, or more than one assignment. No makeup assignment or exam will be given.
- Percentage contributions to the course grade are as follows: Exam 1: 17%, Exam 2: 23%, Final: 30%, Assignments 30% (scores of the best 4 out of 5 will be used). Class participation 5%.

**Important Dates:**
- Exam 1- March 2, 14:00-15:15
- Exam 2: April 20, 14:00-15:15
- Final Exam: See university final exam schedule.

**Other Course Policies**
- Regular attendance is a requirement of this course, and you are responsible for all material, schedules, assignments, deadlines, etc. discussed in class or announced on the class website. Please visit the class website frequently. Please come to the class on time and do not leave early, as these will cause disruption to the class.
- Please do not eat, sleep or use your cell phone in class. Turn off your cell phone before entering the room.
- Please do not ask or expect special case treatment, such as extension of your assignment deadline, taking exams on a different date than those scheduled, make up exams/assignments, special extra credit assignments, etc.