

CSE2100: Data Structures and Introduction to Algorithms Spring 2015

Lecture: TuTh 11am-12:15pm, Gentry 131

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Textbook: Michael T. Goodrich, Roberto Tamassia, and Michael H. Goldwasser, *Data Structures and Algorithms in Java, 6th edition*, John Wiley and Sons, 2014.

Prerequisites: CSE 1102 Object Oriented Design and Programming.

Catalog description: Fundamental concepts of data structures and the algorithms that proceed from them. Implementation and use of linked lists, stacks, queues, trees, priority queues, heaps and graphs. Emphasis on recursion, abstract data types, object oriented design, and associated algorithms and complexity issues. Design using specifications and requirements. Basic computer organizations, including memory organizations and allocations issues. Programming assignments.

List of topics:

- Basics of algorithm analysis
- Recursion
- Arrays and linked lists
- Stacks and queues
- Lists and iterators
- Trees
- Priority queues
- Maps and dictionaries
- Search trees
- Graphs
- Memory management

Grade breakdown: Grading will be based on bi-weekly theoretical homework assignments (20%), bi-weekly programming assignments (20%), and three exams (two mid-terms and a final, 20% each).

Assignment submission: Homework assignments must be submitted electronically via HuskyCT. Programming assignments must be submitted electronically via the Mooshak system at <http://dna.engr.uconn.edu/cse2100/>. Upon submission, Mooshak will automatically compile and execute your program against a batch of test datasets, providing detailed feedback on the correctness and efficiency of your program and allowing you to fix potential problems before the due date.

Late policy: Late submissions are allowed *for up to three days* after the original submission deadline, with 10% of the grade subtracted for each late day.

HuskyCT & Piazza: We have a HuskyCT site for the class; you can access it by logging in with your NetID and password at <https://learn.uconn.edu>. Please check this site regularly for lecture materials, assignments and solutions, grades, etc. For electronic class discussions we will be using Piazza.

Rather than e-mailing questions to the instructor or TAs you are strongly encouraged to post them on Piazza at <https://piazza.com/uconn/spring2015/cse2100/home>. The system is highly catered to getting you help fast and efficiently from both instructors and classmates.

Academic honesty: You are expected to adhere to the highest standards of academic honesty. All submitted solutions must be your own work. For homework assignments and programming projects you may discuss ideas and concepts with others, but *must not share written solutions or code*. Use of published materials (including web resources) is allowed, but *all sources should be explicitly acknowledged in your solutions*. Violations will be reviewed and sanctioned according to the University Policy on Academic Integrity.

Students with disabilities: If you have a documented disability for which you are or may be requesting an accommodation, you are encouraged to contact the instructor and the Center for Students with Disabilities or the University Program for College Students with Learning Disabilities as soon as possible to better ensure that such accommodations are implemented in a timely fashion.