

# CSE2100: Data Structures and Introduction to Algorithms

## Spring 2011

**Lecture:** TuTh 2-3:15pm, ~~ITE C80~~ MONT 213

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Office hours: Tu/Th. 10:30-11:30am

**Textbook:** Michael T. Goodrich and Roberto Tamassia, *Data Structures and Algorithms in Java, 5th edition*, John Wiley and Sons, 2010.

**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.

**Tentative list of topics:**

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

**Grading:** Grading will be based on homework assignments (25%), programming projects (25%), mid-term (25%) and final exam (25%).

**Assignment submission:** Homework assignments must be submitted electronically via HuskyCT. Programming projects must be submitted electronically via the Mooshak system at <http://dna.engr.uconn.edu/~cse2100/>. To login to Mooshak, use your NetID as user name and your peoplesoft # as password. Upon submission, Mooshak will automatically compile and execute each program against several test datasets and provide feedback on the correctness and efficiency of the submission. This will help you identify and fix potential problems.

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

**HuskyCT:** We have a HuskyCT site for the class; you can access it by logging in with your NetID and password at <https://huskyct.uconn.edu/>. You must use HuskyCT for submitting homework assignments and check it regularly for class materials, grades, problem clarifications, changes in class schedule, and other class announcements.

**Academic honesty:** You are expected to adhere to the highest standards of academic honesty. All submitted solutions must be your own work. You may discuss ideas and concepts with other people, but *must not share written solutions or computer code*. Use of published materials and internet resources is allowed, but the sources should be explicitly stated in your submission. 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.