CSE 326
Data Structures
Winter 2010

Instructor: Ruth Anderson
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Office Location: Allen Center (CSE) 360
Office Hours: M & W 3:30-4:30
or by appointment

Lecture: MWF 2:30-3:20 EEB 125

TAs: Patrick Healy, Daniel Jones, Tyler Robison

Note: Sections **will** meet the first week (January 7th)

Sections:

AA	Th	9:30-10:20 am	EEB 031
AB	Th	1:30- 2:20 pm	MGH 241
AC	Th	2:30- 3:20 pm	EEB 026

Course Description: In this course, we will explore several fundamental algorithms and data structures in computer science, and learn to implement them. Some of the data structures we will encounter include linked lists, stacks, queues, trees, heaps, hash tables, and graphs. We will study and analyze algorithms for searching, traversing trees, hashing, manipulating priority queues, sorting, finding shortest paths in graphs, and much more. Note: You may have seen some of this material before. However, the treatment of algorithms and data structures in this course will be much more rigorous and in-depth compared to CSE 143.

Prerequisites: CSE 321

Course Text: Weiss, Mark Allen. **Data Structures and Algorithm Analysis in Java** 2nd Ed., Addison Wesley: 2007, ISBN: 0-321-37013-9

Grading and Evaluation: Grades will be computed *approximately* as follows (weights may be modified):

- 25% - Written Homework Assignments
- 25% - Programming Projects
- 20% - Midterm Exam (Friday, February 5, 2010)
- 25% - Final Exam (Tuesday, March 16, 2010, 2:30-4:20pm)
- 5% - Best of the four items above

CS 326 – First Day Assignments

1) **Project #1** – Your first programming assignment will be posted by Wednesday. Please come to section Thursday with questions.

2) **Preliminary Survey**: Please fill out the preliminary survey posted on our course web page by the evening of Friday January 8th. (Course home page = http://www.cs.washington.edu/326/)

3) **Information Sheet**: Please bring a sheet of paper with the following information with you to lecture on Friday January 8th :

A Picture of you!
Student ID is o.k. but something more interesting or readable is nice too.

Name (and what you like to be called)
Email address
Year (1,2,3,4 i.e. freshman, sophomore, etc.)
Hometown
Interesting Fact about yourself and/or what you did over summer/winter break.

4) **Reading** in *Data Structures and Algorithm Analysis in Java*, 2nd Ed., 2007, by Weiss

- For this week:
  - Chapter 1 – (review) Mathematics and Java (pp. 1-25)
  - Chapter 3 – (Project #1) Lists, Stacks, & Queues
    - Lists (pp. 57-81, heavy on Java, much of this should be review)
    - Stacks (pp. 82-83)
    - Applications of Stacks (pp. 83-91, sections on "Postfix Expressions" and "Infix to Postfix Conversion" can be skipped, but read "Method Calls")
    - Queues (pp. 91-95)
  - Chapter 2 – (Topic for Wednesday) Algorithm Analysis (pp. 29-50)