

CS367 Data Structures Summer 2006

Class Schedule

Day: MTWR

Time: 10:20–11:35am

Location: cs 1257

Class e-mail list: compsci367-1-sum06@lists.wisc.edu

Instructor: Laura Goadrich

Office: cs 5390

e-mail: goadl@cs.wisc.edu

Office Hours: MW 11:35am–12:35pm (or by appointment)

Teaching Assistant: Matt Anderson

Office: cs 1301

e-mail: mwa@cs.wisc.edu

Office Hours: TBA

Course Description

Catalog description: Study of data structures (including stacks, queues, trees, graphs, and hash tables) and their applications. Development, implementation, and analysis of efficient data structures and algorithms (including sorting and searching).

Prerequisites: CS 302 or consent of instructor.

Informal description

This course assumes that you know how to program a computer in an object-oriented language such as C++ or Java. We will be using Java 5.0 for our projects. This course is designed to give you an overview of a wide variety of data structures. We will compare the performance efficiency and appropriate use of each different structure.

Text

Data Structures and Algorithms in Java

by Goodrich & Tamassia

Publisher: Wiley

4th edition

Projected Syllabus:

Week	Dates	Topics (Chapters)
1	June 19-22	Introduction- Overview Java Review (Ch 1 & 2) Arrays & Linked Lists (Ch 3)
2	June 26-29	Analysis (Ch 4) ** Assignment 1 (due June 26 @ 9am) ** Assignment 2 (due June 29 @ 9am)
3	July 3-6	Stacks & Queues (Ch 5) Lists & Iterators (Ch 6) ** Assignment 3 (due July 6 @ 9am)
4	July 10-13	Trees (Ch 7) ** Assignment 4 (due July 13 @ 9am)
5	July 17-20	** Review Day (July 17) ** Midterm (July 18- in class) Priority Queues (Ch 8)
6	July 24-27	Maps & Dictionaries (Ch 9) ** Assignment 5 (July 26 @ 9am)
7	Jul 31-Aug 3	Search Trees (Ch 10) ** Assignment 6 (due Aug 2 @ 9am)
8	Aug 7-10	Sorting Sets & Selection (Ch 11) ** Assignment 7 (due Aug 9 @ 9am) ** Review Day (Aug 9) ** Final (Aug 10- in class)

Note: I reserve the right to modify any item as needed to match the classes progress.

Labs & Resources

We will be using the Unix computers on the first floor of the CS building.

- Information about remotely logging to the CS lab from a home computer has been posted under the "FAQ" section.
- There is a UNIX Orientation session hosted by the CS lab for new and novice UNIX users. Tuesday, June 20 @ 4pm.
- Students new to UNIX can purchase the CS 1000 handout at the DoIT Tech Store. You can also find the handout online.

Homeworks

(Percentage– may be modified to reflect assignment difficulty):

Assignment 1(2%) Due: Mon, June 26 @ 9am
Assignment 2(10%) Due: Thurs, June 29 @ 9am
Assignment 3(10%) Due: Thurs, July 6 @ 9am
Assignment 4(10%) Due: Thurs, July 13 @ 9am
Assignment 5(11%) Due: Wed, July 26 @ 9am
Assignment 6(11%) Due: Wed, Aug 2 @ 9am
Assignment 7(11%) Due: Wed, Aug 9 @ 9am

Homeworks are submitted as specified in the assignment via your handin directory by the date and time specified on the syllabus. Note that the handin directories will close (you will not be able to put anything inside of them) after the deadline specified. Due to the time constraints for a summer session, late homeworks will not be accepted. You will be given a grading sheet for each homework specifying what problems you missed.

You have one week after a graded assignment is returned to request a re-grading of your assignment if you believe that there was an error in the grading.

Exams

Please inform your instructor of conflicts with any exam during the first week of class.

Make-up exams are only given when you are unable to take the regular exam due to extenuating circumstances.

No requests for make-up's will be accepted after the exam is given.

Format: Each exam will consist of short answer questions and some may require you to program in Java.

Midterm

This is a closed book exam. You may bring one handwritten 3x5 note card filled with notes on both sides. You may not share your note card with others during the exam.

The midterm covers the first half of the course including all assigned readings, homeworks, and lectures.

You have one week after the graded exam is returned to request a re-grading of your exam if you believe there was an error in the grading.

Final

This is a closed book exam. You may bring one handwritten 3x5 note card filled with notes on both sides. You may not share your note card with others during the exam.

The final covers the last half of the course material including all assigned readings, homeworks, and lectures.

Grading Scale

Midterm	15%
Final	20%
Homeworks (7 at percentages specified)	65%

Total	100%

Individual assignments and exams will not be assigned letter grades. Letter grades are assigned at the end of the semester. Final grades for CS367 are curved with a mean in the range 2.7 – 3.1, where A = 4.0. The curve is computed after the final exam is completed. The instructor will look for natural divisions in the final percentages for the purposes of assigning letter grades.

Your grades will be stored electronically on Learn@UW so you can confirm your grades and check your progress in the class.