W.A. Burkhard `cs100f@ucsd.edu` `burkhard@cs.ucsd.edu` **Fall 1998**

Lecture Times:	§A: 11:10 - 12:30pm Tuesday and Thursday	001 Cog Sci Bldg
	§B: 2:20 - 3:40pm Tuesday and Thursday	109 Center Hall
Discussion Times:	2:30 - 3:20am Monday	105 Center Hall
	9:05 - 9:55am Wednesday	105 Center Hall
	2:30-3:20pm Friday	1330 HSS
Teaching Assistants:	Pratik Mukhopadhyay `cs100f1@ucsd.edu`	
	Mike Petropoulos `cs100f2@ucsd.edu`	
Office Hours:	In `public/HOURS` – OASIS, teaching assistants and mine.	

Notes:	Burkhard, W.A.	*Data Structures (notes)*	Soft Reserves, Student Center A
References:	Weiss, M.A.	*Data Structures and Algorithm Analysis in C, 2nd Ed.*	
	Harbison, S.P. and Steele, G.L.,	*C A Reference Manual, 4th Ed.*	
	Weiss, M.A.	*Data Structures and Algorithm Analysis in C++*	
	Stroustrup, B. and Ellis, M.A.	*The Annotated C++ Reference Manual*	

Course Structure: This is both a lecture and a laboratory course. There will be section meetings held at regularly scheduled times. Additional material will be presented at the section meetings as well as discussion of lecture material and assignments. The formal prerequisites for CSE100 are CSE12 and CSE30 or the equivalent; topics from CSE20 and CSE21 may pop up from time to time. Please discuss your situation with me if you do not meet these requirements.

Course Grade and Information: The course grade will be based upon four programming projects (40%), a midterm examination (25%), and the final examination (35%). Students must take the final examination at the scheduled time to complete the course. Students who elect "P/NP" grading will be given a letter grade for their own information, but it will not be reported to the Registrar. Marks and other course information will be placed in the course bulletin board located in `public/bulletin` on `ieng9`. Marks will be posted by student number only. If you do not wish to have your marks so posted, please let us know in writing immediately. Incomplete grades will be given only for extraordinary medical or personal emergencies that cause you to miss the final examination and only if your work, up to that point, is satisfactory.

Computer Use: You may use any facility to complete the four data structure exercises using the Java, C or C++ programming language. Questions regarding course accounts should be directed to the teaching assistant. Homework assignments will be graded on the Academic Computer Services `ieng9` system. You will be held responsible for the consequences of your activities on the Academic Computer Services facilities.

Project Submission Procedure: Programming projects are due at midnight on the due date. These are to be turned in electronically complete with documentation. The procedure will be completely described in your first project handout. You are to work in groups of two for the programming projects; this represents a significant change from previous instances of the course. Each group of two students must submit its own work; one copy suffices for the group. You will need to document each partner's contribution to the project. Please choose your partner carefully; your schedules should be compatible to allow working together. A very common partnership failure mode is the "disappearing partner." *Work on the assignments is to be done by individual groups.* To be sure of submitting your projects on time in spite of computer breakdowns and slowdowns, family emergencies etc., you will have to plan around these inevitable occurrences.

CS&E 100		Lecture Schedule	Homework Schedule
1	Data types: lists, stacks, queues; order notation, move-to-the-front Section: Java, C & C++ and Homework I		
2	Table data type, arrays Section: Java, C & C++ and Homework I		Homework I due October 9
3	Hashing, open and closed, ordered, Brent, binary tree, pass-bits Section: Java, C & C++ and Homework II		
4	Priority queue data type; trees and heaps Section: Java, C & C++ and Homework II.		Homework II due October 23
5	Leftist trees, binomial queues, self-adjusting heaps Section: Midterm review and Homework III.		Midterm examination October 29 Room(s) and times to be announced.
6	Disjoint subsets data type; union find implementation Section: Java, C & C++ and Homework III.		
7	Dictionary data type; search trees, optimal search trees Section: Java, C & C++ and Homework III.		Homework III due November 13
8	Heuristic search trees, balanced dynamic search trees, Section: Java, C & C++ and Homework IV.		
9	Treaps and splay trees Section: Java, C & C++ and Homework IV.		
10	AVL trees Section: Review for Final and Homework IV		Homework IV due December 4
	FINAL EXAMINATION room(s) to be announced. §**A:** 11:30 - 2:30pm, Wednesday, December 9 §**B:** 3:00 - 6:00pm, Wednesday, December 9		