Chaminade University
Autumn, 2001
CIS 250
File Processing

Text: A **Practical** Introduction to Data Structures
                       and Algorithm Analysis (Second Edition)
                       Clifford A. Shaffer
                       Prentice-Hall, 2001
                       ISBN: 0-13-028446-7

Instructor: T. C. Wesselkamper
                       wesselk@lava.net
                       377 8891 (voice)
                       373 2213 (fax)
                       Office hours by appointment, Kieffer, II

Grading: 2 mid term tests at 15%   30%
                       Final exam   20%
                       Up to 10 in class quizzes @ 3%   30%
                       4 programs @ 5%   20%

Notes:
- Each program must be documented in syntactically correct, semantically clear English. A program whose documentation contains spelling errors is assumed not to work.
- All tests and quizzes are open book and open notes. You may not, however consult another human being.   For purposes of this rule the instructor is considered to be human.
- Real programming is a group effort, not an individual effort. It is prudent to work with other students in the class on programming assignments.   An assignment submitted may be the work of at most three persons.

Course Objectives:
Cognitive
To understand the mathematical tools which are used in the design of data structures;
To understand the idea of computational complexity and the "Big 0" notation;
To understand tree structured and list structured file organizations;
To understand lists, stacks, trees, and queues as abstract data types;
To understand several sorting techniques and the computational complexity of each.

<u>Skills</u>

To be able to construct programs using stacks, queues, lists and trees;

To be able to document, code, test, and deliver a C and C++ programs;

To be able to create tree structured and list structured files;

To be able to sort data using several different sorting algorithm;

To be able to test empirically assertions about algorithmic complexity.

Schedule:

Dates	Textbook Material
08/27 – 09/07	Number stems and preliminaries
09/10 - 09/26	. 49-139
09/28	Test 1
1001-1031	. 141-258
11/02	Test 2
11/05 -12 07	. 259-325
12/10 - 12/13	Final Exam

Programming Assignments

These assignments are due by 12:00 midnight on the following dates. The vbp and .frm or cpp or c file should be e-mailed to wesselk@ lava. net. The file should contain as a Remark or comment the name of the person or persons submitting the file. Please give each file some name that is highly likely to be unique. Do not use names like "Project 1".

Program 1	Program 2	Program 3	Program 4
September 28, 20011	October 26, 2001	November 16, 2001	December 7, 2001

Program 1
Textbook, p. 138, #4.2

Program 2
Textbook, p. 189, #5.1

Program 3
Textbook, p.275, #7.3

Program 4
Textbook, p. 325, # 9.2

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