

EEL 4851 – Engg. Data Structures - Summer 2006

Dr Kanad Biswas

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When sending mail, remember to put "EEL4851 - followed by your name" in the subject line.

Office Hours: Monday and Wednesday, 9:30-10:30 AM, 5.30-6:00 PM, or by appointment

Course Web Page: <http://www.cs.ucf.edu/courses/eel4851/summer06/>

Course Prerequisites: EEL3801C or equivalent programming course in 'C'

Class Time: Monday and Wednesday, 10.30 AM – 12:20 PM

Class Location: Engr. I - 224

TA: W. Wang 407-733-4234

Office: Engr I - 265

E-mail: ewenjing@hotmail.com

Office Hours: Monday 4.30-5.30 PM,
Wednesday 1.30-2.30 PM, or by appointment

TA: Ehsan Ghaneie

Office:

E-mail: ehsan.ghaneie@gmail.com

Office Hours: By appointment

Course Objective:

- This course is designed to provide an introduction to data structures – study of simple algorithms for problem solving, analysis of algorithms using big-O notation, recursion, recurrence relations, searching and sorting techniques, arrays, stacks, queues, linked lists, trees – binary trees, binary search trees, balanced trees and graphs. The students will learn how to implement abstract data structures and applications using object-oriented programming languages such as Java.

Textbook: Data Structures & Problem Solving Using Java,

by Mark Allen Weiss

Third edition,

Addison- Wesley,

ISBN: 0-321-32213-4

Grading: (Tentative Guideline)

The final letter grade will be based upon the five items listed below. The grading scale will be based on the class average, standard deviation, and overall difficulty of the assignments and exams. Note: plus/minus grades may be issued, when deemed appropriate.

Exam #1	20%
Exam #2	20%
Final Exam	20%
Programming Assignments.....	25%
Quizzes.....	15%

Homework Assignments

All homework assignments are to be turned through WebCT by 11 PM on the day they are due. Assignments will be accepted up to three days late with a 10% penalty each day past the deadline. Extensions will only be granted in unusual circumstances. All programming for assignments is to be done in Java 5.0 (no exceptions). The TAs will run the programs on OLYMPUS for grading purposes.

Quizzes

Quizzes will be unannounced and consist of a small number of fairly basic questions on material that has been covered recently. Quizzes may occur both in lectures and labs.

Exams

The exams in this course are meant to evaluate your mastery of the concepts presented in class. Since the material in this course all builds on itself, exams will be cumulative. *Calculators of any sort* are not allowed on exams.

Labs

Labs are held every week and you are required to attend each lab session. The purpose of the labs is to learn Java programming and also to reinforce material that is covered during lectures and to allow you additional time to ask questions.

Topics To Be Covered

Note: *This is intended as a general indication of what to expect from the course. Some topics may even be added or omitted.*

1. Introduction to Java programming – selected material from part One
2. Algorithm Analysis - Chapter 5
3. Recursion – Chapter 7
4. Stacks & Queues – Chapter 16
5. Linked Lists – Chapter 17
6. Sorting Algorithms – Chapter 8
7. Trees – Chapters 18, 19
8. Graphs – Chapter 14

Typically, my lectures will be over material that is also in the text, but I will occasionally add material into my lectures that is NOT in the text. For this reason, class attendance is important. This is a general ordering only and is subject to the needs of the class. It will be altered without notice, but will generally follow the same progression.

Tentative Exam Dates

May 29 th	Memorial Day No class
June 7 th	First Exam
June 23 rd	Withdrawal Deadline
July 3 rd	Second Exam
August 2 nd	Final Exam

Academic Honesty

While you are encouraged to discuss techniques and ideas with your classmates for the purposes of learning, all code that you turn in is to be the product of your own efforts. Cheating is taken very seriously at UCF. Any students found to be cheating in home work/lab assignments may receive a zero grade on that component and may be subject to additional penalties including disciplinary action at the university level. Cheating on exams/quizzes is punishable by a failing grade for the entire course.