Course Prerequisites: COP 3502 and COP 3330

Class Time: Monday and Wednesday, 3:00 – 4:15 PM
Class Location: BA-119

Lecturer: Ben Douglass
Office: CSB-107
E-mail: bendoug@cs.ucf.edu
Phone Number: 407-823-3228
Office Hours: Monday and Wednesday, 4:30-5:30 PM, Tuesday and Thursday, 1:30-2:30 PM, or by appointment
Course Web Page: http://webct.ucf.edu/

TA: Sean Mondesire
Office: CC1-202
E-mail: sean@cs.ucf.edu
Office Hours: Wednesday, 12:15-1:15 PM, Friday, 10:30-11:30 AM

TA: Sean Szumlanski
Office: CC1-202
E-mail: seansz@cs.ucf.edu
Office Hours: Monday and Wednesday, 1:15-2:15 PM

Course Objective:
This course is designed to provide a fundamental understanding of data structure implementation, problem solving techniques as well as some simple analysis of algorithms. Emphasis will be placed on good programming practices and object-oriented techniques with respect to the implementation of the data structures required to support algorithmic solutions to problems.


Grading:
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%
Homework Assignments ............................................................................................................................30%
Quizzes ...............................................................................................................................................10%

Homework Assignments
There will be between three and six programming assignments. Each assignment will be introduced in class and posted on WebCT. All homework assignments are to be turned through WebCT by 11:55 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).

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 recitations.
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, but even if they were, it is doubtful they would be of much help.

Recitations
Recitations are held every week and you are required to attend. The purpose of recitations is reinforce material that is covered during lectures and to allow you additional time to ask questions. Recitations will generally cover more examples than the lecture.

If possible, you should attend the recitation that you signed up for. If for some reason you can’t attend the recitation you signed up for one week, you can attend a different one, but don’t make a habit of it. If there starts to be a problem, attending the correct recitation may become mandatory (i.e. I don’t want everyone piling into one recitation section).

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. Algorithm Analysis – Chapter 5
2. Stacks & Queues – Chapter 16
3. Linked Lists – Chapter 17
4. Sorting Algorithms – Chapter 8
5. Trees – Chapters 18, 19
6. Hash Tables – Chapter 20
7. Binary Heaps – Chapter 21
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. I will attempt to place slides on WebCT which will be the basis for that day’s lecture.

Important Dates
January 16th Martin Luther King Jr. Day No class
February 20th First Exam
March 3rd Withdrawal Deadline
March 13th – 18th Spring Break No class
March 27th Second Exam

The final exam is scheduled for Wednesday, April 26 from 1:00 - 3:50 PM.

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 will receive a score of -25% for the assignment no matter what and may be subject to additional penalties including disciplinary action at the university level. Cheating on exams is punishable by a failing grade for the entire course.