Fall 9-1-2000

CS 331.01: Data Structures

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Computer Science 331 - Autumn 2000

Data Structures

Prerequisites

CS 132 - Fundamentals of Computer Science II
(corequisite) Math 225 - Discrete Mathematics

Outcomes of the Course

It is expected that students will finish the course with the following skills/knowledge:

- Full understanding and appreciation of concepts in data and procedural abstraction.
- Thorough familiarity with commonly-used data structures and their associated algorithms, and use of abstract data types in solving a broad range of problems.
- Increased maturity and skills in mapping problems to well-designed, well-implemented computer programs. Though Java programming will be the only expected language prerequisite for the course, emphasis will be placed on language-independence of data structures and algorithms for the purpose of designing problem solutions.
- Exposure to concepts in algorithm analysis.

Instructor Information

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Office Hours


Class Meeting Times/Place

1540 - 1700 TuTh
Chemistry-Pharmacy 109
Attendance Policy

Class attendance is not a factor in determining grades. When a class is missed, it is the STUDENT’S responsibility to obtain any notes, assignments, etc. from classmates.

Required Text

_Data Structures in Java_, by Thomas A. Standish.

Grade Evaluation

5 programming assignments - 25%

- Absolutely NO programming assignments will be accepted after the stated deadlines.
- Lowest programme assignment grade is dropped. Students are still expected to understand any material related to the programme.
- Programme assignments which do not compile will not be graded.
- In general, no extensions of programme deadlines - plan ahead and anticipate system outages, etc.
- Your best bet is to plan on having your assignment completed several days before the actual due date. If you find yourself at the deadline without a completed programme, your best bet is to turn in something that compiles, even if it doesn’t work as specified.

5 graded homework assignments - 10%.

- Absolutely NO homework assignments accepted after stated deadline.
- Lowest homework assignment grade is dropped. Students are still expected to understand any material related to the homework.

Two exams - 40% (15% "low" exam, 25% "high" exam)

- Must notify instructor _BEFORE_ the exam to schedule a makeup.
- Exam 1 - Thursday, 5 October, in class.
- Exam 2 - Thursday, 9 November, in class.
- Exam with lowest score will be weighted 15%, other exam weighted 25%.

Comprehensive final exam - 25%

- 1520, Monday, 18 December

Grading Scale
Grade Average
A 90 or greater
B 80-89
C 70-79
D 60-69
F less than 60

Tentative Course Topics (not necessarily in this order)

- Overview
- Object-Oriented Programming
- Linked Data Representation
- Recursion
- Queues
- Stacks
- Trees
- Graphs
- Hashing and Tables
- Sorting
- Algorithm Analysis

Page maintained by Don Morton

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