

CSCI2320 Introduction and C++ Basics

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Opening Discussion

- What did you do over your summer? Did you do anything related to what you learned in PAD 1 and PAD 2?
- What is a data structure? What data structures do you know of? What are they good for?
- If you have some free hours in your schedule consider 3294 on Network Security.

The Basics

- Place and Time: HAS 340, 11:20-12:35 TR
- Contact info: 999-7022 or mlewis@trinity.edu. I'm on e-mail almost all the time. That is certainly the best way to reach me.
- Office Hours: 2:30-4:30 MWR or by appointment. I'm in Halsell and my door is open. If I'm not in my office I might be in a lab. The Monday time is an open lab in 228.

Course Description

- As the title implies, this course focuses on data structures. You will learn about a variety of data structures, what they are, and what they are good at.
- You will also be coding all of these data structures in the C++ programming language (as well as doing other coding in Java).
- Software engineering concepts like design and testing also flow through the course.

Text

- "Introduction to Algorithms" by CLR.
- You also need a C++ reference book. "C++: The Core Language" is an optional book in the book store. It is slightly out of date and doesn't have enough details, but it is only \$30 and you only have to read 200 pages to get most of what you need. Whatever book you choose, I want you to read it in roughly the next two weeks.

Assignments

- Like last semester, you will have 8 assignments and they will all be part of one large semester long project.
- You can do your development on whatever platform you like, but it has to all compile and run for me on a Linux box. I would recommend using Eclipse as an IDE and use Cygwin if you are on Windows.
- You will be working in pairs for the entire project.

Grades

- Your grade in this class is determined by a combination of 4 parts.

Assignments (10)	50%
Tests (2)	30%
Quizzes (6 drop 1)	10%
Class Participation	10%

The Project

- You are creating a "web site analyzer". The web page has a long description of the project. You should read it closely.
- Significant things:
 - All data structures in C++ with significant binary data file access.
 - You work in groups of 2.
 - Test code written first and submitted early group evaluations late.

C++ Basics

- C++ is based on C and with only a few minor exceptions, all good, valid C programs are also C++ programs (C is nearly a subset of C++).
- What we want to do now is write a very basic C++ program and identify the parts that are similar to C or Java and those things that are different.
- Let's write a program to give us some stats about a sequence of numbers.

Minute Essay

- What do you think of the course description? If you have any preference for a partner list the people you would or would not like to be paired with.
