CMPS 2010 Programming Fundamentals

Spring 2024 - Section 03

Lecture Classroom: Science III 311
Course Website: https://cs.csub.edu/~paul/cs2010
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Office Hours: Mon, Wed 11:00am - 1:00pm
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Course Description

This course introduces the fundamentals of procedural programming and object-oriented programming. Topics include data types, control structures, functions, arrays, console & file I/O, pointers, dynamic memory allocation, and object oriented programming. The mechanics of compiling, linking, running, debugging, and testing within the Linux programming environment are covered. Historical perspective and ethical issues of programming within the context of software development will be discussed.

Prerequisites

Passing score on ELM OR satisfaction of the ELM exemptions AND a passing score on the Pre-Calculus Readiness Test (see Class Schedule for details) OR completion of math remediation.

Textbook

Starting Out with C++: From Control Structures through Objects Author: Tony Gaddis
Publisher: Pearson 2014
Edition: 7th - 9th should work
ISBN-10: 0133769399
ISBN-13: 9780133769395

Material Covered

Chapter 1: Introduction to Computers and Programming

Chapter 2: Introduction to C++

Chapter 3: Expressions and Interactivity

Chapter 4: Making Decisions

Chapter 5: Loops and Files

Chapter 6: Functions

Chapter 7: Arrays

Chapter 8: Searching and Sorting Arrays

Chapter 9: Pointers

Chapter 10: Characters, Strings and More About the String Class

Chapter 11: Structured Data

Chapter 12: Advanced File Operations

Chapter 13: Introduction To Classes

Chapter 14: More About Classes

Chapter 15: Inheritance, Polymorphism, and Virtual Functions

Chapter 16: Templates

Chapter 19: Recursion

Attendance

It is recommended that you attend every class session and that you are not late to class. Lectures will begin at the class start time. I may randomly take attendance for records but it does not count for points.

Academic Integrity Policy

Do your own work. Programming knowledge is cumulative. Everything you learn in this class will be used in your later courses. Violations are determined in accordance with the Department's policy on academic honesty.

Open Computer Lab and Tutoring

The walk-in computer lab in Science III is available for use by students in this course outside of class time on a first come/first serve basis. Priority in the lab is given to students who are completing assignments for Computer Science and Computer Engineering courses.

Tutoring is also provided on a limited basis in the walk-in lab. The tutors are not allowed to solve the assignment for you, but they can assist with problems like compiler errors.

Grading

Labs: 25%
Homework: 25%
Midterms: 25%
Final: 25%

All Labs, homework assignments, and exams are given equal weight unless stated otherwise.
This is subject to changes based on assessment of the class's academic progress and needs.

Homework and Labs

50% of your grade will be based on homework and labs (assignments). Late assignments will be accepted with a penalty of 25% per each 24 hrs the assignment is late. Extensions will be given for extreme circumstances on an individual basis.

Homework - DUE SUNDAY BY MIDNIGHT!

Homework assignments will be posted on the course website every MONDAY. Each homework assignment will be worth 10 points and will consist of multiple questions covering the material covered in class that week.

Labs - DUE MONDAY BY MIDNIGHT!

Lab assignments will be posted on the course website every TUESDAY. Labs will be worth 10 points and usually involve coding a number of small programs. You may work on the labs in groups of two to three students. Programs which do not compile may be given partial credit depending on the severity of the error.
All labs should start with a comment including the course name, assignment number, your name, and the date completed.

Assignment Submission

All homework assignments will be submitted by filling out the form on the class website.
You can submit and save your homework as many times as you want up until the due date.
Any homework submitted after the due date will be considered late.

Labs will be submitted by running a script from your lab folder each week.
Lab submissions should be **.cpp** and **.h** files written in C++ source code ready to compile.
Compiling and testing directly before submission is highly recommended.

Exams

There are no quizzes. There will be 1-2 midterms and a final exam. The midterms will be given between weeks 5 and 10, and the written final will be given Monday, May 13th from 8:00am to 10:30am. Make up exams will only be given in extreme circumstances and must be approved in advance by the instructor.

Statement Regarding Accommodations for Students with Disabilities

To request academic accommodations due to a disability, please contact the Office of Services for Students with Disabilities (SSD) as soon as possible. They may be reached at 661-654-3360 (voice), or 661-654-6288 (TDD). If you have an accommodations letter from the SSD Office, please present it to me during my office hours as soon as possible so we can discuss the specific accommodations that you might need in this class.