

Computer Science 5 - Fundamentals of Programming Logic Using C++

1 Introduction

Course: CSC 5 - Fundamentals of Programming Logic Using C++

Professor: Paul J. Conrad

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Lecture: Monday and Wednesday Lecture: 2:20PM-3:45PM in BE-200

Laboratory: Monday and Wednesday: 4:05PM-5:30PM in BE-200

Office Hours: Tuesday and Thursday: 10:15AM-11:30AM, 2:15PM-3:30PM in BE-220J

Friday: 10:15AM-11:30AM in BE-220J

Prerequisite: None, Advisory: CIS 1A

1.1 Course Description

Introduction to the fundamentals of problem definition, algorithm development, and structured programming logic for business, scientific and mathematical applications. The C++ language will be used for programming problems. 54 hours lecture and 18 hours laboratory.

1.2 Reading

Required Text: Starting Out With C++ From Control Structures through Objects, Eighth Ed.

By: Tony Gaddis

ISBN-10: 0133769399, ISBN-13: 9780133769395

1.3 SLO - Student Learning Outcome

Student should be able to create computer programs in C++ using the principles of structured programming. Student should be able to apply the principles of logical and programming concepts to develop specific solutions for gaming, business, scientific and mathematics problems. Student should be able to identify the information input requirements, synthesize the algorithmic steps needed to transform the data input into the required output information, and organize the output format to facilitate user communication. Student should be able to demonstrate the use of the C++ IDE and libraries.

2 Lab Assignments/Quizzes/Exams

2.1 Laboratory Assignments

The course lab assignments are programming problems in either the textbook or from course website. These assignments will be done in the laboratory and are due by the due date specified with the assignment. Lab assignments are to be turned in via email with a brief three to four sentence synopsis or summary of what you learned from the lab assignment. Laboratory assignments are worth 40 points each, with laboratory work being worth 25 points, laboratory attendance being worth 10 points, and synopsis summary being worth 5 points. There will also be an assignment given at the end of the last lab meeting for the week, which must be done outside of class and is due by the due date specified with the assignment. Practice! Practice! Practice!

Lab work turned in after the due date will be considered late and worth 1/2 credit until ONE WEEK after being assigned. Any later than that, it is worth zero credit.

2.2 Quizzes

There may be occasional weekly quiz on Wednesday near the end of the lecture session covering the discussed topics of the week. The quizzes will consist of five questions, worth 25 points total for the quiz. We will have approximately 10 quizzes throughout the semester.

2.3 Exams

There will be one midterm examination and one comprehensive final examination. The midterm exam will be Wednesday, October 21st, 2015 and cover all material discussed during the first seven weeks of the course.

Final exam will be on **December 16th, 2015 from 2:00PM to 4:30PM in room BE-200**. The final exam will cover all of the material that is introduced in the course.

2.4 Reading and Exam Schedule

The table below is the reading and examination schedule for this semester.

<u>Week</u>	<u>Reading / In Class Objectives</u>	<u>Exam</u>
1 - Aug 31 st	Chapters 1/2 - Intro to Computers/Programming/C++	
2 - Sep 7 th	Chapter 2 - Programming C++	
3 - Sep 14 th	Chapter 3 - Expressions	Quiz #1
4 - Sep 21 st	Chapters 4/5 - Decisions / Loops	Quiz #2
5 - Sep 28 th	Chapters 4/5 - Continuation of Decisions / Loops	Quiz #3
6 - Oct 5 th	Chapters 5/6 - Loops, Files, Functions	Quiz #4
7 - Oct 12 th	Chapters 5/6 - Continuation of Files and Functions	Quiz #5
8 - Oct 19 th	Midterm Exam	Midterm
9 - Oct 26 th	Chapter 7 - Arrays	
10 - Nov 2 nd	Chapter 8 - Searching and Sorting Arrays	Quiz #6
11 - Nov 9 th	Chapter 9 - Pointers	Quiz #7
12 - Nov 16 th	Chapter 10 - Characters, C-String, string Class	Quiz #8
13 - Nov 23 rd	Chapter 11 - Structured Data	Quiz #9
14 - Nov 30 th	Chapter 12 - Advanced Files	Quiz #10
15 - Dec 7 th	Chapter 13 - Classes	
16 - Dec 14 th	Final Exam (<u>Dec 16th, 2:00PM to 4:30PM room BE-200</u>)	FINAL

* Midterm (Wednesday - October 21st)

* Final Exam (Wednesday - December 16th)

2.5 Make Ups

Make ups for laboratory assignments, midterm and quizzes will be allowed only due to unforeseen emergencies. There will be no make-ups for the final exam.

In the event of an illness, please contact me via email or phone **BEFORE** class so we can arrange a make-up.

3 Grading

3.1 Points/Percentages Breakdown

<u>Task</u>	<u>Points</u>	<u>Percentage of Grade</u>
Laboratories	40 points each	20%
Midterm Exam	100 points	30%
Chapter Quizzes	25 points each	15%
Final Exam	100 points	35%

3.2 Grading Scale

<u>Letter Grade</u>	<u>Percentage</u>
A	90% to 100%
B	80% to 89%
C	70% to 79%
D	60% to 69%
F	0% to 59%

4 Extras

4.1 Classroom/Lab Policies

You must show up to class prepared and ready to learn. Be on time to class. Come to class prepared; reading and lab assignments should be completed as assigned. No food or drink is allowed in the classroom. Please bring something to write with and paper so that you can take notes. Computer and Network Use in department classrooms and labs are governed by district policies found in Board Policy 3720 and are subject to Standards of Student Conduct located in the Student Handbook. Violations of these policies are subject to Disciplinary Actions as outlined in Section VI of the Student Handbook located at:

<http://www.rcc.edu/services/Documents/StudentHandbook.pdf>

4.2 Academic Dishonesty

RCC defines plagiarism as, "Presenting another person's language (spoken or written), ideas, artistic works or thoughts as if they were one's own." This includes using someone else's code as your own. Plagiarism is academically dishonest. Students must make appropriate acknowledgement of the original source where material written or compiled by another is used. Cheating or dishonest practices, such as turning in the writing of someone else and claiming it as your own, will result in your receiving a failing grade on the assignment and possibly for the course.

4.3 Student Accommodations:

If you have a physical, psychiatric/emotional, medical, or learning disability that may impact your ability to carry out assigned course work, I urge you to contact the staff in the Office of Disabled Student Services at (951)222-8060. The office is located on the Riverside Campus, in the Administration Building. The DSP&S will review your concerns and determine with you what accommodations