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

0 Introduction
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Course:       CSC 5 - Fundamentals of Programming Logic Using C++
Professor:    Paul J. Conrad
Website:      http://pauljconrad.net, http://rccdopencampus.blackboard.com
EMail:        Paul.Conrad@rcc.edu, Phone: 951-222-8070
Lecture:      Tuesday and Thursday Lecture: 9:35AM-11:00AM in BE-200
Lab:          Tuesday and Thursday: 11:20AM-12:45PM in BE-200
Office Hrs:   Monday: 3:30PM-5:00PM in BE-220J
              Tuesday and Thursday: 2:00PM-4:00PM in BE-220J
Prerequisite: None, Advisory: CIS 1A
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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.

2 Reading
Required Text: Starting Out With C++ From Control Structures through Objects, Eighth Ed.
By: Tony Gaddis, ISBN-10: 0133769399, ISBN-13: 9780133769395

3 SLO - Student Learning Outcome
Be able to create computer programs in C++ using the principles of structured programming. Be able to apply the principles of logical and programming concepts to develop specific solutions for gaming, business, scientific and mathematics problems. 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. Be able to demonstrate the use of the C++ IDE and libraries.

4 Laboratory Assignments
Course lab assignments are programming problems 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 Assignment Submission on Open Campus with proper documentation of the lab assignment. Lab assignments are worth 50 points each, with working programs being worth 30 points, and documentation being worth 20 points. At the end of the last lab meeting for the week, there will be an additional homework assignment given, which must be done outside of class and is due by the due date specified with the assignment. 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.

5 Discussion Board Participation
As part of your course reading requirements, you will be required to participate in the Open Campus Discussion Board for our class. As a graded participation, you are to formulate two questions per chapter reading, **AND** answer at a minimum of two questions that other students have posted in the Discussion Board. This Discussion Board Participation is worth 20 points (5 points per question, and 5 points per answer).

6 Quizzes

There may be occasional weekly quiz on Thursday 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.

7 Exams

There will be one comprehensive final examination. The Final Exam will be held on **June 7th, 2016 from 8:00AM to 10:30AM in room BE-200**. The final exam will cover all of the material that is introduced in the course, and will include a Final Programming project. Final Exam is 100 points, and Final Project is 100 points.

8 Reading and Exam Schedule

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

Week	Reading / In Class Objectives	Exam
1 – Feb 16th	Chapters 1/2 – Intro to Computers/Programming/C++	
2 – Feb 23rd	Chapter 2 – Programming C++	
3 – Mar 1st	Chapter 3 – Expressions	Quiz #1
4 – Mar 8th	Chapters 3/4 – Decisions	Quiz #2
5 – Mar 15th	Chapter 4 – Continuation of Decisions	Quiz #3
6 – Mar 22nd	Chapters 5 – Loops, Files	Quiz #4
7 – Mar 29th	Chapter 5/6 – Cont. of Loops, Files, Functions **	Quiz #5
8 – Apr 5th	Chapters 6 – Continuation of Functions	
9 – Apr 19th	Chapter 7 – Arrays	
10 – Apr 26th	Chapters 7/8 – Searching and Sorting Arrays	Quiz #6
11 – May 3rd	Chapter 8 – Continuation of Sorting	Quiz #7
12 – May 10th	Chapters 9 – Pointers	Quiz #8
13 – May 17th	Chapter 10 – Characters, C-String, string Class	Quiz #9
14 – May 24th	Chapter 12 – Advanced Files	Quiz #10
15 – May 31st	Chapter 11/13 – Structured Data/Classes/ Final Review	
16 – Jun 7th	Final Exam (**June 7th, 8:00AM to 10:30AM room BE-200)**	FINAL

* Final Exam (Tuesday – June 7th)   ** No Class on March 31st, 2016 - Holiday

9 Make Ups

In general, there are no make ups of any kind. Exceptions can be made with proper documentation.

10 Grading Breakdown

Task	Points	Grade Weight
Assignments	50 pts each	30%
Quizzes	25 pts each	20%
Final Exam	200 pts	50%

11 Grading Scale

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

12 Classroom/Lab Policies

You must show up to class prepared and ready to learn. **Be on time to class. Do not come into class if you are late.** 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

13 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. **I take academic honesty very seriously, so do good honest academic work!**

14 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 are necessary and appropriate. All information and documentation is confidential.