Computer Science 18C - Java Programming: Data Structures

0 Introduction
```
Course:       CSC 18C - Java Programming: Data Structures
Professor:    Paul J. Conrad
Website:      http://pauljconrad.net, http://rccdopencampus.blackboard.com
EMail:        Paul.Conrad@rcc.edu, Phone: 951-222-8070
Lecture:      Tuesday: 7:30PM-9:00PM in BE-104
Lab:          Online
Office Hrs:   Monday: 3:30PM-5:00PM in BE-220J
              Tuesday and Thursday: 2:00PM-4:00PM in BE-220J
Prerequisite: None, Advisory: CSC 18A / CIS 18A
```

1 Course Description
This course is designed to be an advanced Java programming course for students familiar with object-oriented programming and database concepts. The major emphasis will be related to concepts of storing and retrieving data efficiently, which are the essential principles, and practices of data structures. 54 hours lecture and 18 hours laboratory.

2 Reading
Required Text: Data Structures and Abstractions with Java, 4th Edition
By: Frank M. Carrano, Timothy M. Henry
ISBN-10: 0133744051, ISBN-13: 9780133744057

3 SLO - Student Learning Outcome
Analyze and understand the use of data structures in the development of algorithms. Design and create Java programs using stacks, trees, queues, lists and trees. Apply practical business processes, theoretical scientific, and mathematical concepts to write and execute computer programs in the Java language using data structures.

4 Laboratory Assignments
Course lab assignments are programming problems from course website. Lab assignments are to be turned in via Assignment Submission on Open Campus with proper documentation of the lab assignment by the assigned due date. Lab assignments are worth 50 points each, with working programs being worth 30 points, and documentation being worth 20 points. 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 Tuesday on Open Campus 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 7:30PM to 9:00PM in room BE-104**. 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	Introduction	
2 – Feb 23rd	Chapters 1-3 – Bags/Collections	
3 – Mar 1st	Chapters 7-9 – Introduction to Sorting/Recursion	Quiz #1
4 – Mar 8th	Chapters 7-9 – Recursion/Advanced Sorting	Quiz #2
5 – Mar 15th	Chapters 12-16 – Lists	Quiz #3
6 – Mar 22nd	Chapters 12-16 – Lists	Quiz #4
7 – Mar 29th	Chapters 10-11 – Queues	Quiz #5
8 – Apr 5th	Chapters 10-11 – Queues	
9 – Apr 19th	Chapters 5-6 – Stacks	
10 - Apr 26th	Chapters 5-6 – Stacks	Quiz #6
11 – May 3rd	Chapters 19-22 – Hashing and Dictionaries	Quiz #7
12 – May 10th	Chapters 23-27 – Trees	Quiz #8
13 – May 17th	Chapters 23-27 – Trees	Quiz #9
14 – May 24th	Chapters 28-29 – Graphs	Quiz #10
15 – May 31st	Chapters 28-29 – Graphs / Review for Final	
16 – Jun 7th	Final Exam (**June 7th, 7:30PM to 9:00PM room BE-104)**	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.