Course Information

Name: CSCI 212 - Object Oriented Programming in Java
Prerequisite: CSCI 111
Schedule: Lecture 33 - Tuesday and Thursday 6:30 - 7:20 PM (C205)
Lab 33A - Monday and Wednesday 6:30 - 7:20 PM (A135B)
Lab 33B - Monday and Wednesday 7:30 - 8:20 PM (A135B)

Instructor Information

Instructor: Andy Abreu (Lecture) & Kiyoung Song (Lab)
E-mail: andy.abreu.qc@gmail.com
Office Hours: SB A201 - by appointment only - This is a shared office with no direct phone line or voicemail.

Overview

This course expands on the design of object-oriented programs introduced in Computer Science I. Students will be introduced to abstract data types including stacks, queues, and lists. Emphasis is placed on the design and implementation of these abstract data types as well as applications that utilize them. Object-oriented programming concepts such as composition, inheritance, polymorphism, and exception handling are utilized throughout this course. An introduction to binary-trees and recursion is provided. Includes supervised hands-on laboratory component.

Textbook and Materials

- Java: An Introduction to Problem Solving and Programming (Ed. 8) by Savitch Walter
    - ISBN-13: 978-0134462035
    - ISBN-10: 0134462033
- Compiler - Students should use Eclipse as the integrated development environment (IDE)/editors for all programming assignments

Course Policies

Projects (All class files must be documented as specified in Lab 0)
There will be 5 programming projects. All projects are expected to be handed in on time. Students are required to submit programs that are syntax free, and produce some output, even if the output is incorrect. I will not grade programs which contain syntax errors. Students must submit a zip file, via email, containing the entire Eclipse project by 11:59pm on the day the assignment is due.

Labs (All class files must be documented as specified in Lab 0)
There will be approximately 12 laboratory assignments. Students will work in pairs on the assignment distributed at each of these meetings, and each student will be responsible for completing and submitting these assignments by 11:59pm on the specified due date. Due to the fact that you will be working in pairs, it is essential that you be present and on time for all laboratory meetings.

Exams

There will be 1 to 2 exams given throughout the semester in addition to a final exam. Make-up exams will not be given. Consideration will be given to those students who contact me before the exam (via email) and provide a valid, documented reason for missing the exam.

Attendance

Attendance is a critical aspect of this course. As such, attendance will be taken every day. Students are expected to be in class on time and stay for the duration of the scheduled time. Students are responsible for all material missed due to absence and should contact me or another student prior to the next scheduled class meeting to determine what was covered and/or assigned. Any student absent on the day an assignment is due is still responsible for submitting the assignment electronically by the specified deadline.

Electronic Devices

Cell phones are restricted during class. Cell phones must be turned off during the lecture. If your cell phone rings during class, you may be asked to leave.

Academic Honesty

All Queens College students are expected to uphold the Queens College Academic Policies. In particular, we use plagiarism detection software to identify similarities among submission.

Grading

- Final grades will be determined by the following percentages:
  - Exams 1 and 2………………..30%
  - Final Exam…………………….20%
  - 5 Projects……………………..25%
  - 12 Laboratory Assignments…25%

Topics

- Introduction and Overview
- Inheritance, polymorphism, abstract classes, interfaces
- Exception handling, File I/O
- Array-based implementation of basic abstract data types (stack, queue, list)
- Linked lists
- Linked implementation of basic abstract data types (stack, queue, list)
- Built-in collection classes
- Recursion
- Binary Trees and Recursive implementation of the binary search tree ADT
- Testing