CIS 036A Introduction to Computer Programming Using Java

Instructor   Victor Yu
Meeting Hours   Tuesday and Thursday: 08:00 pm - 09:50 pm (Lecture 08:00-09:00 pm, Lab Hours 09:10-09:50 pm)
                     Online: Monday, Wednesday: 9:30pm-10:15pm
Location   AT312
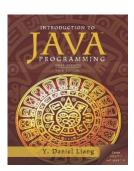**Course Site**   http://elearning.ebookriter.com (Enrollment key: JaveRules!)
Online Programming MyProgrammingLab (Section Access Code: DEAN-22380-HAPPY-27)

COURSE DESCRIPTION

This course is the first Java programming class, and introduces the basic concepts, program structure that includes data types, flow of control constructs, operators, text I/O, objects and classes, interfaces, packages, GUI, exceptions and threads. Prior knowledge of programming is not assumed but is helpful. After completing the course, the student will be able to:

- Identify computing basics and Java as a programming language.
- Apply data types, expressions in basic Java programs.
- Identify Input/Output functions and formatting techniques.
- Build simple program using operators in expressions.
- Demonstrates flow of control concepts in Java programs.
- Demonstrate usage of Functions/Methods in writing programs.
- Apply the concepts of Arrays in Java programs
- Identify Object theory concepts and learn how to write Classes.
- Apply additional Object-oriented concepts and apply them in simple Java programs.
- Write programs to demonstrate the usage of File I/O API in Java.
- Demonstrate how to do Graphical User Interface development in Java.
- Demonstrate basic usage of Exception management.
- Apply the basic Thread concepts.

REQUIRED MATERIALS

Introduction to Java Programming, Comprehensive, By Y. Daniel Liang, Pearson, 10th Edition, 2014. ISBN-13 978-13-376131-3, ISBN-10 0-13-376131-2
Available on Amazon: Print Book eBook

COURSE REQUIREMENTS

Attendance   Your attendance is expected in all lectures, because some of the materials presented in class may not be in the textbook. If you miss any class, you are still responsible for completing all work assigned in this class in a timely fashion.

You are expected to do the assigned readings before each session and to come prepared for the discussion.

Lab attendance, however, is not mandatory. If you have a computer at home that is running JDK 7 or above, you may choose to work on your labs from there.

Scholarly conduct

Discussion and exchange of ideas on assignments are strongly encouraged. However, each person is expected to complete his/her own computer work. Identical solutions will be given a zero grade.

Copying or cheating during an exam will result in a zero being assigned to the test grade for both parties.

Discussion Forum

All questions should be directed to Piazza, the online discussion forum. Questions by email will not be answered, because other students will not benefit from the answer.

Participation & Contributions

Study has shown that active learning is the key to successfully completing the course. You will not learning by just coming and listening. Examples of active learning include:

- Preview course contents
- Participating in the class discussion
- Contributing to the online discussion forum - Piazza
- Demonstrating code examples

Requirements

The course consists of

Reading assignments

- Chapter reading is an integral part of the course work. Students should read the corresponding chapters before and after the lectures.

Two exams (a midterm and a final exam)

- Make up for the midterms rarely allowed, unless for emergency reasons or prior approval. Prior approval must be obtained at least one week before the scheduled exam.
- The final exam must be taken during the scheduled time, there is no early or late exam taking.
- Both exams are comprehensive.

Five hands-on lab assignments

- Each is worth 10 points, and will be posted on the course website
- Always due at 8:00pm on due date
- A 5% penalty for each day past due. 5 or more over due will NOT be accepted for credit.

In-class exercises

From time to time, there will be in-class exercises that are intended to reinforce your understanding of the class content. Exercises need NOT be turned in, and will NOT be graded. However, it MAY be covered by the exams.

GRADING

Grading is based on the percentage of the total points obtained:
  Participation and contribution: 5%
  Labs: 40%
  Midterm: 25%
  Final: 30%
  A = 92-100%
  A- = 87-91%
  B+ = 82-86%
  B = 77-81%
  B- = 72-76%
  C+ = 67-71%
  C = 63-66%
  C- = 60-62%
  F   = 0-59%

TENTATIVE SCHEDULE

Week	Topics	Chapter Readings	Labs, Exams
1	Introduction to Java	Chapter 1	Lab 1 assigned
2	Data types, statements, and expressions	Chapter 2	
3	Control statements, Math functions, characters, and Strings	Chapter 3, 4	Lab 2 assigned
4	Control statements, Methods	Chapter 5, 6	
5	Arrays	Chapter 7, 8	Lab 3 assigned
6	Review		Midterm Exam
7	Classes and Objects	Chapter 9, 10	
8	Inheritance and Polymorphism, Abstract Classes and Interface	Chapter 11, 13	Lab 4 assigned
9	Object-oriented Programming Design Exception Handling	Supplement Chapter 12	
10	GUI Programming	Chapter 14	Lab 5 assigned
11	Event-driven Programming	Chapter 15	
12	Threading	Chapter 30	Final Exam