

Syllabus - CIS 35b @ De Anza

Advanced Java Programming

Office hours

Location - F51e - Mon/Wed - 1pm to 2:50pm. You can also call me at 408 864 5566 during my office hours.

Faculty Information

Sukhjot Singh phone: 408 864 5566 email: singhsukhjot@fhda.edu Office Location: F51e

Requisites: None

Advisory:

English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 35A.

Hours:

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

Description:

Emphasis on foundation technologies in Java that enable you to write server side programs in Java. Concepts include inner classes, exceptions, file I/O, reflections, cloning, multi-threading, Web Programming with Java Server Pages, Servlets, JavaServer Faces and JavaBeans.

Student Learning Outcome Statements (SLO)

- Read, analyze and explain advanced Java programs.
- Design solutions for advanced problems using appropriate design methodology incorporating object oriented programming constructs and advanced Java concepts.
- Create algorithms, write, document, debug, and test advanced Java programs.

Grading System for this course

For Letter Grade:

Grade: A+ assigned with 97% or higher

Grade: A assigned with 93% or higher

Grade: A- assigned with 90% or higher

Grade: B+ assigned with 87% or higher

Grade: B assigned with 83% or higher

Grade: B- assigned with 80% or higher

Grade: C+ assigned with 77% or higher

Grade: C assigned with 73% or higher

Grade: D+ assigned with 70% or higher

Grade: D assigned with 63% or higher

Grade: D- assigned with 60% or higher

Grade: F assigned with 0% or higher

For Pass/No Pass:

Grade: Credit assigned with 70% or higher

Grade: No Credit assigned with 0% or higher

Incomplete

Audit

Withdrawal

Grading

Labs - 100% of the grade

Assignment Due dates

You will be assigned 6 to 8 assignments during the quarter. Assignment details can be found on the [Assignment page](#).

Midterm and Final dates can also be found on [Assignment page](#).

Required Text:

Java Programming: Advanced Topics, Third Edition [Paperback]

Joe Wigglesworth (Author), Paula McMillan (Author)

ISBN-10: 0619159685

Course description

Java is fast becoming the programming tools for tomorrow, especially with the explosion of the Internet. World Wide Web pages are becoming truly interactive embedded applets for content, animation, graphics and sound. This is possible using Java with its promise of platform independence. What this means is that "Write Once, Run Anywhere" may become a reality for software development, i.e. software written for Windows would work equally well on Macintosh, Unix, etc., and vice versa.

Java uses a syntax similar to C/C++. However, people not familiar with C/C++ should have no difficulty in learning Java. This course is intended for such an audience. It focuses mainly on the Java as Programming Language, its syntax and semantics. This 10 session course (3 hours per session) will cover the following:

- A. Write Java programs using complete syntactical features including inner classes.
- B. Use the data structures and algorithms in the collections introduced in JAVA 2.
- C. Design and create run time and checked exceptions to support the error recovery needed for robust programming.
- D. Use the complete range of advanced I/O features offered by Java.
- E. Use reflection features of Java to determine object information at run time.
- F. Create classes which support the ability to be cloned.
- G Program Thread-Safe Applications using Collections and Swing
- H. Use the JavaBean component architecture to build Beans and graphical tools to construct applications.
- I. Use the Swing API to program full-featured GUI applications.

Course Structure

In 11 week period you will 4 hour lectures and 1 hour labs. Two way discussion on subject material is highly encouraged. You should spend 8 - 10 hours per week to be able to finish your lab assignments and to learn the material taught in class. You are required to complete 6 Lab assignments, take a Midterm and a Final. Exams may be comprehensive or multiple choice.

Lab Grading Criteria

Full programming assignments will be evaluated with consideration given to

Accuracy (does the program solve the computing problem?)
Adherence to OOP Design techniques
Design Tool Accuracy and Appearance
Data Structures and Naming
Documentation
Timeline
Professional Presentation

Instructions for Lab Assignment Submission

(Please follow - This is important)

If instructions are not followed then assignments will be returned ungraded and late penalty will be assessed based on when they are turned in.

How to submit Lab Assignments?

You should turn in a soft copy of each program along with a text file that contains the test run of your source code.

You should include a copy of design document as well.

All Assignments are emailed to me cislabs05@gmail.com

Subject with each submission should be stated as - "CIS 35B - Lab <#>" - Replace # with the assignment number you are submitting.

To get organized

1. Create a directory for each lab assignment and insert all files associated with that Lab in that Directory.
2. Zip up the directory and name it using the naming convention stated above.
3. Email the file - including the information requested above in the subject.

Adequately test your program using test data (depending on the program) Lab Assignment Grading Due dates will be provided on the calendar.

Assignments turned in late will earn a maximum of 50% credit. No work will be accepted after the last lecture day

List of Recommended books

Java Tutorial Object Oriented Programming for the Internet by Mary Campione and Kathy Walrath. This tutorial also

available at java.sun.com

The Java Programming language Second Edition by Ken Arnold and James Gosling.

Thinking in Java by Bruce Eckel - Visit www.bruceeckel.com for a free online version.

Core Java Volume I: Fundamentals (Please get the latest edition)

Software

Download Java Standard Edition (latest version). Follow the installation instructions provided on the same page.

Mac users have java pre-installed and available in the Unix Shell on Mac OS. If you prefer a GUI based IDE then work with Eclipse. Here is a video that might help - <http://www.youtube.com/watch?v=Otlva4ZHfqc>