

COURSE OUTLINE

CMSY-217

Intermediate Java

3 Semester Hours

HOWARD COMMUNITY COLLEGE

Description

This intermediate Java course covers some topics from Introduction to Java in more depth and also introduces more advanced topics. Upon completion of this course, students will be able to demonstrate solid skill in the fundamentals of Java programming language and an understanding of some advanced features such as JAVA I/O, Multithreading, Networking, JDBC and database connectivity, Remote Objects, Advanced AWT, Java Beans, Swing, and Java Servlets. Prerequisite: CMSY-199 (2 hours lecture, 2 hours lab)

Overall Course Objectives

Upon completion of this course, the student will be able to:

1. Set up threads that work without errors. Build timers and animations.
2. Collect multiple objects and take advantage of the standard collection.
3. Perform network programming and applet security.
4. Write useful programs to handle realistic database.
5. Work with Java objects that are distributed over multiple machines.
6. Use Java Swing library, especially complex tree and table.
7. Use Java 2D API to create realistic drawings.
8. Write Java beans that other programmers can manipulate.
9. Write class loaders and security managers.
10. Write Java application crossing country boundaries.

Major Topics

- I. Multithreaded Programming
- II. Java.util Part 1: The Collections Framework
- III. Java.util Part 2: Other utility classes
- IV. Input/Output: Exploring java.io
- V. JDBC and Database Connectivity
- VI. Networking
- VII. Using AWT Controls, Layout Managers, and Menus
- VIII. Java Beans
- IX. Swing
- X. Servlets

Course Requirements

Grading/exams:

Grading procedures will be determined by the individual faculty member, but will include at least 5 programming projects.

Other Course Information

This course is a Business elective and an Internet elective.