

Common Course Outline

CINS 237

Advanced Java Programming

4 Semester Hours

The Community College of Baltimore County

Description

Advanced Java Programming

Advances knowledge of Java programming language using enhanced environments and advanced concepts including multithreaded programs, network applications and servlets and advanced applets; emphasized GUI based programming using swing packages and a commercial Java IDE.

3 credits: 2 lecture hours per week

Prerequisites: CINS 236

Overall Course Objectives

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

1. Develop moderate to advanced complexity Java programs
2. Develop network applications using Java
3. Develop Java servlets
4. Use the Java Swing packages
5. Use an IDE such as Visual Café or Visual J++
6. Debug and maintain applications written in Java
7. Develop multithreaded Java programs
8. Access Graphical User Interface (GUI)
9. Create Java applets
10. Develop, write, and maintain program documentation

Major Topics

1. Review of the Java language
2. Java development tools
3. Basic concepts of GUI construction using the Java AWT
4. Introduction to Java Swing
5. GUI construction using Swing
6. Advanced techniques of GUI construction
7. Introduction to multithreaded programming
8. Construction of multithreaded programs in Java
9. Testing and debugging multithreaded applications
10. Network programming in Java
11. Constructing network servlets

12. Advanced applet development

Course Requirements

Grading: Grading procedures will be determined by the faculty member, will be provided the first week of class, and will include:

1. Minimum of four programming projects
2. Minimum of four tests.
3. Comprehensive final or project.

Other Course Information

This course meets the second level programming language requirement in CIS: Programming and is a CIS elective.

This course is taught in a lecture/computerized environment.

This course is the second course in a two-course sequence.