Administrative Unit: Computer and Mathematical Sciences Department

Course Prefix and Number: CISS 238

Course Title: Java

Number of: Credit Hours: 3 Lecture Hours: 3 Laboratory Hours: 0

Catalog Description: This course is an introduction to programming using Java. Topics include methods, classes, objects, advanced object concepts, input, selection, repetition, arrays and strings, applet, HTML, graphics, inheritance, advanced inheritance concepts, abstract windows toolkit (AWT), file input and output. Prerequisites: CISS 170, MATH 150. Occasional offering.

Prerequisite(s)/Corequisite(s): CISS 170, MATH 150.


Course Objectives:
- To decompose and map problems onto Java syntactical constructs.
- To test Java programs using appropriate techniques.
- To utilize graphic processing techniques.
- To build graphical user interfaces.
- To utilize object-oriented tools and techniques in program construction.

Measurable Learning Outcomes:
- Utilize basic control structures such as if/then/else, do while, do until, while, and for/next.
- Utilize modules, classes, and procedures to organize program structure.
- Process arrays.
- Employ object-based constructs and techniques such as classes, inheritance, and polymorphism.
- Explain exception handling and utilize it in programs.
- Develop graphical user interfaces.
- Process files and streams.
- Connect to databases and issue queries.

Topical Outline (major areas of coverage):
- Introduction to Java Applets
- Control Structures
- Method Definition and Overloading, Built-in Methods
- Arrays
- The Repetition Structure
• Object-Oriented Programming
• Graphics
• Graphical User Interfaces
• Exception Handling

Recommended maximum class size for this course: 20

Library Resources: Online databases are available at http://www.ccis.edu/offices/library/resources.asp. You may access them from off-campus using your eServices login and password when prompted.

Prepared by: Lawrence West

Date: April 14, 2005

NOTE: The intention of the master syllabus is to provide an outline of the contents of this course, as specified by the faculty of Columbia College, regardless of who teaches the course, when it is taught or where it is taught. Faculty members teaching this course for Columbia College are expected to facilitate learning pursuant to the course objectives and cover the subjects listed in the topical outline. However, instructors are also encouraged to cover additional topics of interest so long as those topics are relevant to the course’s subject. The master syllabus is, therefore, prescriptive in nature but also allows for a diversity of individual approaches to course material.

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