

# **COURSE OUTLINE**

**CMSY-199**

**Introduction to Java**

**3 Semester Hours**

## **HOWARD COMMUNITY COLLEGE**

### **Description**

Upon completion of this course, students will be able to demonstrate an understanding of the Java programming language and skills in the development and use of Java applets and applications using the Java Development Kit (JDK). Prerequisite: CMSY-141 or CMSY-181 or CMSY-190. (2 hours lecture, 2 hours lab)

### **Overall Course Objectives**

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

1. Distinguish between an applet and an application.
2. Describe the pros and cons of the Java programming language.
3. Write an application program that demonstrates knowledge of the various layout managers.
4. Write an application program that demonstrates knowledge of event driven programs.
5. Write an application program that designs a GUI with multiple windows and dialogs demonstrating knowledge of the Abstract Window Toolkit (AWT).
6. Write an application program that reads and write data to/from disk.
7. Write an applet.
8. Demonstrate usage of exception handling.
9. Write an application program that uses client/server networking.
10. Demonstrate knowledge of multi-threading.

### **Major Topics**

- I. Objects and classes
- II. Design user interfaces with AWT
- III. Applets and applications
- IV. Data structures
- V. Exceptions and debugging
- VI. Input/Output
- VII. Networking and multi-threading

### **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**

Meets college definition for a Business elective.