

# Inver Hills Community College

## CS 1126: Java Programming

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

CS 1110 - Computer Science I with Java; OR

CS 1119 - Computer Programming with C++

Corequisites: None

MnTC Goals: None

Introduces object oriented programming using Java. Topics include objects and classes, organizing data, inheritance, graphics and graphical user interfaces, API support. This course is designed for students who are familiar with basic programming concepts including branching, looping, subroutines, and arrays.

Prereq: CS 1110 or CS 1119 or any first computer language.

**B. COURSE EFFECTIVE DATES:** 01/01/1998 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Additional API support: 2.5%
2. Alternative flow of control: 2.5%
3. Graphical user interface: 20%
4. Graphics: 15%
5. Inheritance: 10%
6. Objects and classes: 20%
7. Organizing classes: 10%
8. Organizing data: 2.5%
9. Program elements: 2.5%
10. Programming constructs: 10%
11. Software concepts: 2.5%
12. Software development process: 2.5%

### D. LEARNING OUTCOMES (General)

1. Demonstrate understanding of Java programming language capabilities
2. Successfully implement user interfaces with Java graphical API
3. Illustrate an understanding of object-oriented programming concepts including classes, packages, abstraction, encapsulation, attributes, methods, inheritance, polymorphism, super classes and interfaces
4. Utilize an industry-standard integrated development environment (IDE) to successfully develop Java programs
5. Describe typical phases of the object oriented design process
6. Develop effective, logical algorithms using object-oriented programming principles
7. Apply important features of the Java programming language to write well structured Java Programs

**E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

None

**F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted