MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

DEPT. CSCI **COURSE NUMBER: 2250**

NUMBER OF CREDITS: 4 **Lecture: 4 Lab: 0 OJT 0**

Course Title:
Java Programming

Catalog Description:
Java Programming provides an overview of the Java programming language and special features of control structures, input/output streams, data structures and abstraction mechanisms. Concepts include creating complete Java classes, derive new classes with effective use of inheritance, and use Java to create applets.

Prerequisites or Necessary Entry Skills/Knowledge:
CSCI 2200

FULFILLS MN TRANSFER CURRICULUM AREA(S) ***(Leave blank if not applicable)***

☐Goal 1: Communication: By meeting the following competencies:
☐Goal 2: Critical Thinking: By meeting the following competencies:
☐Goal 3: Natural Sciences: By meeting the following competencies:
☐Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
☐Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
☐Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
☐Goal 7: Human Diversity: By meeting the following competencies:
☐Goal 8: Global Perspective: By meeting the following competencies:
☐Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
☐Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered
Introduction to computers, the internet and web
Introduction to Java applications
Introduction to Java applets
Introduction to Java swing components
Control structures: Part 1
Control structures: Part 2
Methods
Arrays
Object-based programming

Object-oriented programming
Strings and characters
Graphics and Java2D

Student Learning Outcome
Manipulate the interactive development environment and/or the JDK to create, edit, compile, debug and save designed application source code and a Java Applet.
Describe fundamental data types, arithmetic operators and their order of precedence.
Develop algorithms with the notion of top-down, stepwise refinement employing control structures effectively to produce programs that are understandable, debuggable and maintainable over time.
Discuss common math methods available from the Java API, create new methods and understand the mechanisms used to pass information between methods.
Structure homogeneous data into arrays both single-subscripted and double-subscripted, and investigate various array manipulations; populating, printing, sorting and the passing and searching of arrays.

Is this course part of a transfer pathway: Yes ☐ No ☒
***If yes, please list the competencies below**

Revised Date: 1/18/2022