Course Code	Course Title
COMP 1029J	**Java Programming Bridging Course**

Course Description

This course introduces the Java programming language. It is intended for students who already have some experience in computer programming but wish to learn how to apply those programming skills to the Java language. The course covers basic programming topics such as variables, control statements, loops, functions, and object-oriented programming concepts. Students explore these by self-learning of course materials together with guided programming exercises. Students without the prerequisites but possess relevant programming knowledge may seek instructor's approval for enrolling in the course. Graded P or F. *Exclusion(s):* COMP 1022P, COMP 3021, ISOM 3320 *Prerequisite(s):* COMP 1002 OR COMP 1004 OR COMP 1021 OR COMP 1022Q OR ISOM 3230

List of Topics

1. Introduction to Java
      a. Using Java and BlueJ
      b. Variables and Data Types
      c. Basic Java Operators
      d. Text Input and Output

2. Essential Programming in Java
      a. Using Strings
      b. Making Decisions
      c. Loops
      d. Functions

3. Object-oriented Programming and Arrays
      a. Basic Object-oriented Programming
      b. Using the Main Function
      c. Arrays

4. Advanced Topics
      a. File Input and Output
      b. Recursion
      c. Inheritance

5. Greenfoot
      a. Using Greenfoot
      b. Creating a Player
      c. Creating an Enemy
      d. Making a Game

Textbook(s):

N/A

Reference Book:

N/A

Grading Scheme

Online Exercises	50%
Exam	50%
Total	100%

Intended Learning Outcomes (ILOs)

1. Define basic programming elements such as variables, control, loops and functions in Java
2. Describe object-oriented programming concepts in Java
3. Describe data structures and data abstraction in Java
4. Design, write and debug computer programs in Java

Assessment Rubric

N/A