

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: ITP 120

Credits: 4

Course Title: Java Programming I

Course Description: Teaches the fundamentals of object-oriented programming using Java. Emphasizes program construction, algorithm development, coding, debugging, and documentation of console and graphical user interface applications. Lecture 4 hours per week.

General Course Purpose: The course can also be used as an IT elective in any degree concentration.

Course Prerequisites and Co-requisites:

None

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Define the use of Java as a programming language;
- b. Define object orientation, classes, and methods;
- c. Write applications of considerable complexity using the Java programming language;
- d. Test and debug written applications; and
- e. Enhance the functionality of application through program modifications.

Major Topics to Be Included:

- a. Programming Logic and Design
- b. Programming Structures
- c. Arrays
- d. Console I/O
- e. Procedures/Functions/Methods
- f. Parameters/Arguments
- g. Packages (API)
- h. Data Types
- i. Documentation (Java Docs)
- j. UML
- k. Ethics
- l. OOP concepts

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