

Education within the reach of all A Ministry of Calvary Chapel-Port-au-Prince (509) 2209-5686 - administration@uespoir.edu.ht - www.uespoir.edu.ht

Syllabus

Course Title

JAVA PROGRAMMING LANGUAGE

I. Objective:

The main objective of this course is to help students master the concepts of basic programming using the Java language.

II. Prerequisites:

There are no prerequisites for this course, but it is generally offered to students in computer science.

III. Materials and Books:

The course materials will be provided in PDF format and made available to students from the first day.

IV. Course Content:

- 1. Introduction to the concept of Basic Java Programming
 - Variables: Declaration, Usage, and Assignment
 - Input and Output

2. Control Structures

Functions (Methods)

- Loops
- Arrays
- 3. Exceptions Handling
- 4. More about Classes
 - Variables and Modifiers
 - Constructors, Methods, Overloading, and Polymorphism
 - Instantiation, this and super keywords
- 5. Inheritance, Interface, and Package
 - Access Modifiers: public, private, protected
 - Class-level variables with static keyword
- 6. Using Existing Classes (Packages)
 - Reading and Writing to a File
- 7. Inner Classes
 - Inner, Shadowing, Local, and Anonymous Classes (implementation of Interface)

V. Introduction to Swing

- Input and Output using Graphical User Interface (GUI)
- Saving information to a file
- Saving information to a database

References: https://docs.oracle.com/javase/tutorial/java/concepts/class.html