

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

#### Syllabus

### **Course Title**

### **C# PROGRAMMING LANGUAGE**

### I. Objective:

The objective of this course is to help students master the widely used programming language called C# through practical projects, including desktop and web applications.

### II. Prerequisites:

Java II - The "Database" course is recommended.

### III. Materials and Books:

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

### IV. Course content

- 1. Variables and Constants:
  - Arithmetic operators, Boolean/Logical operators, and other comparison operators.
  - Increment/Decrement ++x; x++.
- 2. Decision Making and Loops:
  - If-else statements, switch-case statements.

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- For loop, while loop, do-while loop.
- 3. Arrays and Classes:
  - Introduction to arrays and their usage.
  - Working with classes and objects.
- 4. Files and Serialization:
  - Reading and writing data to files.
  - Serialization and deserialization of objects.
- 5. Basic Database Concepts:
  - Introduction to databases and basic concepts.
  - Utilizing basic database operations.
- 6. Utilizing APIs:
  - Working with Windows OS APIs and other web APIs.
- 7. Practical Projects:
  - Hands-on projects using Visual Studio 2017 and Microsoft SQL Server.
  - Developing desktop and web applications.