

Course Syllabus:

C# (Syntax) Programming course

Enroll to Excellence

Objectives:

This course provides an opportunity to learn C# and object-oriented programming in .NET framework by syntax teaching, programming, debugging and object-oriented programming design.

Medium:

Cantonese supplemented with English

Prerequisites:

Basic programming (such as C or C++ or Java), but it's not a must.

Award of Certificate:

Students who achieve an attendance of 75% or above are qualified for the Attendance Certificate issued by the Department.

Topics include:

- Introduction to .NET framework
- Getting started: Hello World and C# VS C++/Java
- Variable Types: Reference Types, Value Types, Escape Sequences, Verbatim Strings, Boxing
- Unmanaged Code: Pointer Notation, Pointers, Unsafe Code
- Arrays: Single-Dimensional Arrays, Rectangular Arrays, Jagged Arrays
- Enumerators
- Flow Control: Loop Statements (while, do-while, for, foreach)
- Flow Control: Jump and Selection Statements
- Using constructor and disposer

- Object-oriented concepts
- Introducing classes, structs and namespaces: Classes and Types, Inheritance, Abstract Classes and Interfaces, Nested Classes, Structs, Namespaces
- Class declaration: Attributes, Class Modifiers, Class Base, Interface Declarations
- Introducing Methods: Attributes, Method Modifiers, Formal Parameters, Parameter Passing, The params modifier, Return Type, Method Overloading
- Polymorphism: Member Overriding, Member Hiding
- Operators: overloading operators
- Constants, Fields, Properties and Indexers
- Delegates and Events
- Exceptions
- Using C# compiler, preprocessor directives, attributes
- Code Documentation

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Total Hours: 30