



### Course Syllabus

<b>Course Title</b>	C# Object Oriented Programming	<b>Lecture Time</b>	1:45 – 5:00
<b>Instructor</b>	Ayman Taan	<b>Course Is</b>	✓ Required
<b>E-mail</b>	<a href="mailto:A.Taan.ext@tahaluf.ae">A.Taan.ext@tahaluf.ae</a>	<b>Instructor Phone Number</b>	
<b>Office Hours:</b> Sunday and Thursday: 10:00 am – 11:00 am.			

### Course Description

C# is a modern, object-oriented programming language intended to create simple yet robust programs. Designed specifically to take advantage of CLI features, C# is the core language of the Microsoft .NET framework. In this course, students gain the skills to exploit the capabilities of C# and of the .NET Framework to develop programs useful for a broad range of desktop and Web applications.

### Learning Outcomes (CLO)

Students will learn how to:

- Create, compile and run object-oriented C# programs using Visual Studio.
- Write and understand C# language constructs, syntax and semantics.
- Develop reusable .NET components via interface realization and standard design patterns.



- Leverage the major namespaces and classes of the .NET Framework
- Access databases using Language Integrated Query (LINQ).

## HANDS-ON TRAINING

Students gain experience creating their own C# application. Hands-on exercises include:

- Writing and compiling C# programs using Visual Studio
- Building C# classes and inheritance hierarchies
- Constructing and deploying custom .NET components
- Implementing data-query logic for databases using LINQ
- Accelerating development with the .NET Framework library

### Tentative Timetable

Day #	Subjects
1	1. Clean Code 2. Naming Convention 3. Classes and Objects 4. Access Modifiers 5. Properties, Methods and Constructors 6. Exercises
2	1. What Is Inheritance? 2. Calling Base Class Constructors and Members 3. Enums
3	4. Jordan Independence Day ( <b>Holiday</b> )
4	5. C# Nullable 6. Generics 7. Exception Handling
5	8. Exercises



<b>6</b>	<b>9. Interface</b> <b>10. C# List</b> <b>11. LINQ</b>
<b>7</b>	<b>12. C# FileInfo</b> <b>13. StreamWriter in C#</b> <b>14. StreamReader in C#</b>
<b>8</b>	<b>15. String Vs string C#</b> <b>16. C# String Interpolation</b> <b>17. Lambda Expressions</b> <b>18. Constructors and Destructors</b> <b>19. IDisposable interface</b>
<b>9</b>	<b>20. Static Keyword (static member, static property, static method)</b> <b>21. ENUM</b>
<b>10</b>	<b>22. Accessing a Database</b> <b>23. Customizing Generated Classes</b> <b>24. Reading and Modifying Data</b> <b>25. Querying Data</b>



Day #	Type	Assessment Tool	Marks
4	Task	C# Nullable Generics Exception Handling	10
6	Task	Interface C# List LINQ	10
7	Task	C# FileInfo StreamWriter in C# StreamReader in C#	10
8	Task	String Vs string C# C# String Interpolation Lambda Expressions Constructors and Destructors IDisposable interface	10
10	Final Project	Methods. Method Parameters. Method Overloading.	30
10	C# Exam	All Topics	30