# TOROS ÜNIVERSITESI

Faculty Of Engineering Electrical And Electronics Engineering (English)

#### **Course Information**

C# PROGRAMMING						
Code	Semester	Theoretica	l Practice	National Credit	ECTS Credit	
Hour / Week						
CSE325	Spring	2	2	3	5	

Prerequisites and co- requisites	
Language of instruction	English
Туре	Elective
Level of Course	Bachelor's
Lecturer	Asst. Prof. Omid SHARİFİ
Mode of Delivery	Face to Face
Suggested Subject	
Professional practise ( internship )	None
Objectives of the Course	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)
Contents of the Course	This course covers software development in the .Net framework and the C# programming language. C# is a new object oriented language that makes full use of this framework and has all the important features that a modern language should have. The topics include the philosophy of the .Net framework and .Net class library, object-oriented programming, event handling, graphical user interfaces and Controls, graphics and medias, multithreading, exception handling, strings and characters, files and database futures.

## **Learning Outcomes of Course**

#	Learning Outcomes	
1	Upon successful completion of this course, students will be able to:	
2	Design, document, code and test small C# console and GUI applications.	
3	Design, document, code and unit test class libraries as part of a larger project.	
4	Use an object browser and .NET documentation to examine C# and the .NET framework namespace contents.	
5	Use the Visual Studio IDE to create and debug application and class library solutions and projects.	
6	Interpret UML class diagrams to create C# classes and applications	

## **Course Syllabus**

#	Subjects	<b>Teaching Methods and Technics</b>		
1	Introduction to the .NET Framework	Lecture		
2	Introduction to C# Programming	Lecture		
3	Creating the User Interface and using Controls	Lecture		
4	String Handling, Files and Streams	Lecture		
5	Testing and Debugging Your Application	Lecture		
6	Object-Oriented Programming and Polymorphism	Lecture		
7	Midterm exam			

8	Collection Classes.	Lecture
9	Data Access Using ADO.NET	Lecture
10	Multi-Threading	Lecture
11	Creating Controls Using the .NETFramework	Lecture
12	LINQ	Lecture
13	Generics	Lecture
14		
15		
16	Final Exam	

# **Course Syllabus**

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	1 Visual C# (2008 and above) How To Program . DEITEL&DEITEL, T.R.NIETO Prentice Hall 2 An Information System Approach to OOP using MS Visual C# .NET Kyle Lutes, Alka Harriger, Jack Purdum THOMSON Course 3 Visual C# .NET Step By Step, John Sharp, Jon Jagger. Microsoft Press 4 C# Multimedia Cyber Classroom.Deitel, Deitel, Nieto, Yaeger & Zlatkina.		

#### **Method of Assessment**

4	Weight	Work Type	Work Title
	. 40%	Mid-Term Exam	Mid-Term Exam
[2	60%	Final Exam	Final Exam

## Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	Upon successful completion of this course, students will be able to:	1	1,2
2	Design, document, code and test small C# console and GUI applications.	1	1,2
3	Design, document, code and unit test class libraries as part of a larger project.	1	1,2
4	Use an object browser and .NET documentation to examine C# and the .NET framework namespace contents.	1	1,2
5	Use the Visual Studio IDE to create and debug application and class library solutions and projects.	1	1,2
6	Interpret UML class diagrams to create C# classes and applications	1	1,2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

#### **Work Load Details**

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	4	56
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	2	28
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	1	2	2

8	Midterm Exam	1	1	1
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	2	2
16	Final Exam	1	1	1
				90