Description
The objective of this course is to give hands-on applications programming experience using the C# programming language on the Microsoft® .NET Platform. The course will cover not only the rules of the C# language but also many useful libraries from the .NET Framework Class Library.

Topics Covered
- Introduction I (algorithms, programming languages, .NET Platform, Common Language Runtime, Framework, assemblies, packaging)
- How to use Visual Studio® 2012
- A program’s structure, basic data types, arithmetic operations, assignment, implicit casting
- .NET Type System (value types vs. reference types), memory concepts, garbage collector (GC)
- Classes I (constructors-destructor, properties, access modifiers)
- Methods (overloading, pass-by-reference, scope of variables, static methods, operator overloading)
- Control statements (if-else, switch, while, for, do-while)
- Classes II (inheritance, abstract classes, interfaces, is-as)
- Arrays, Collections (foreach, indexers)
- Exception Handling
- Delegates and Event Handlers
- Windows® Forms and introduction to Windows Presentation Foundation
- Generics, Generic Collections
- Strings and StringBuilder
- Files and Streams
- XML and LINQ to XML
- Database access (with ADO.NET and LINQ to SQL)

Instructor
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Textbooks

I will not stick to the textbooks all the time, you are responsible for all material covered in class.

Schedule
Lectures: Thursday 19:00–22:00 Karakoy Center, Saturday 13:00–16:00, Main Campus FENS G032

Grading
Midterm (30%): 4th week of the course, October 12th 13:00.
Final Exam (40%): Last (7th) week of the course, November 14th 19:00.
Homeworks (30% total): 2 homework will be assigned and they are of equal weight