

This course combines topics from the following courses (any items marked with a \* will be covered if time allows).

Topics taken from our **INTRODUCTION TO VISUAL C#** course

<p><b>Creating forms</b></p> <ul style="list-style-type: none"> <li>• Drawing controls</li> <li>• Formatting forms</li> </ul> <p><b>Coding form events</b></p> <ul style="list-style-type: none"> <li>• Forms and their events</li> <li>• The two event arguments</li> </ul> <p><b>Laying out your code</b></p> <ul style="list-style-type: none"> <li>• Commenting out code</li> <li>• Using regions</li> </ul> <p><b>C# variables</b></p> <ul style="list-style-type: none"> <li>• Creating and using variables</li> <li>• The types of variable</li> </ul> <p><b>Enumerations and constants (*)</b></p> <ul style="list-style-type: none"> <li>• Enumerations</li> <li>• Constants</li> </ul>	<p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Using IF and ELSE</li> <li>• The SWITCH statement</li> </ul> <p><b>Modular code</b></p> <ul style="list-style-type: none"> <li>• Passing arguments</li> <li>• Writing functions</li> </ul> <p><b>Arrays</b></p> <ul style="list-style-type: none"> <li>• Using arrays</li> <li>• Splitting text</li> </ul> <p><b>Looping</b></p> <ul style="list-style-type: none"> <li>• Looping n times</li> <li>• WHILE loops</li> <li>• Looping over collections</li> </ul> <p><b>Files and folders</b></p> <ul style="list-style-type: none"> <li>• Stream readers and writers</li> <li>• The USING statement</li> <li>• FileInfo and DirectoryInfo</li> </ul>	<p><b>Debugging and trapping errors</b></p> <ul style="list-style-type: none"> <li>• The TRY clause</li> <li>• Stepping through code</li> <li>• Setting breakpoints</li> </ul> <p><b>Using lists</b></p> <ul style="list-style-type: none"> <li>• Populating lists</li> <li>• Finding items</li> </ul> <p><b>Properties in C#</b></p> <ul style="list-style-type: none"> <li>• RO, WO and RW properties</li> <li>• Coding properties</li> </ul>
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Topics taken from our **INTERMEDIATE C#** course

<p><b>Designing classes</b></p> <ul style="list-style-type: none"> <li>• The domestic cat object</li> <li>• Properties and methods</li> <li>• Encapsulation and exposure</li> </ul>	<p><b>LINQ theory</b></p> <ul style="list-style-type: none"> <li>• Extension methods</li> <li>• lenumerability</li> <li>• Query vs. method syntax</li> </ul>	<p><b>LINQ with Entity Frameworks</b></p> <ul style="list-style-type: none"> <li>• Creating a data context</li> <li>• Selecting data using LINQ</li> <li>• Using relationships (associations)</li> <li>• Adding, editing and deleting</li> </ul>
<p><b>Creating classes</b></p> <ul style="list-style-type: none"> <li>• Using namespaces</li> <li>• Creating constructors</li> <li>• Fields, properties and methods</li> <li>• Static members</li> </ul>	<p><b>Writing LINQ</b></p> <ul style="list-style-type: none"> <li>• Arrays, lists and data tables</li> <li>• Criteria and ordering</li> <li>• Using LET expressions</li> </ul>	<p><b>Advanced LINQ with EF (*)</b></p> <ul style="list-style-type: none"> <li>• Returning anonymous types</li> <li>• Using stored procedures</li> <li>• Extending (partial classes)</li> </ul>
<p><b>The form as a class</b></p> <ul style="list-style-type: none"> <li>• Partial classes</li> <li>• InitializeComponent method</li> <li>• Instantiating forms</li> </ul>	<p><b>Advanced LINQ (*)</b></p> <ul style="list-style-type: none"> <li>• Projecting data</li> <li>• Anonymous types</li> <li>• Forcing query execution</li> <li>• Taking and skipping</li> </ul>	<p><b>Grouping using LINQ (*)</b></p> <ul style="list-style-type: none"> <li>• IGrouping and IEnumerable</li> <li>• Grouping keys</li> <li>• Group into and ordering</li> <li>• Using multiple keys</li> </ul>
<p><b>Data structures</b></p> <ul style="list-style-type: none"> <li>• Generics</li> <li>• Arrays</li> <li>• Lists, stacks and queues</li> <li>• Dictionaries</li> </ul>	<p><b>Types of model</b></p> <ul style="list-style-type: none"> <li>• Code first</li> <li>• Model first</li> <li>• Database first</li> </ul>	
<p><b>Overloading (*)</b></p> <ul style="list-style-type: none"> <li>• Overloaded methods</li> <li>• Overloading constructors</li> </ul>	<p><b>Entity Frameworks</b></p> <ul style="list-style-type: none"> <li>• Creating entity data models</li> <li>• Data contexts</li> <li>• Updating models</li> </ul>	

There will be no more than 6 people on the course. All of our public (scheduled) courses include lunch at a local restaurant. For more information, see [www.wiseowl.co.uk/courses/fast-track-c-sharp.htm](http://www.wiseowl.co.uk/courses/fast-track-c-sharp.htm).