# Fast track C#

## 3 day training course



## Course contents

This course will cover the following topics.  Those marked with (*) will be covered if time allows.

From our Introduction to Visual C# course

### Creating forms
- Drawing controls
- Formatting forms

### Coding form events
- Forms and their events
- The two event arguments

### Laying out your code
- Commenting out code
- Using regions

### C# variables
- Creating and using variables
- The types of variable

### Enumerations and constants (*)
- Enumerations
- Constants

### Conditions
- Using IF and ELSE
- The SWITCH statement

### Modular code
- Passing arguments
- Writing functions

### Arrays
- Using arrays
- Splitting text

### Looping
- Looping n times
- WHILE loops
- Looping over collections

### Files and folders
- Stream readers and writers
- The USING statement
- FileInfo and DirectoryInfo

### Debugging and trapping errors
- The TRY clause
- Stepping through code
- Setting breakpoints

### Using lists
- Populating lists
- Finding items

### Properties in C#
- RO, WO and RW properties
- Coding properties

## From our Intermediate C# course

### Designing classes

- The domestic cat object
- Properties and methods
- Encapsulation and exposure

### Creating classes

- Using namespaces
- Creating constructors
- Fields, properties and methods
- Static members

### The form as a class

- Partial classes
- InitalizeComponent method
- Instantiating forms

### Data structures

- Generics
- Arrays
- Lists, stacks and queues
- Dictionaries

### Overloading (*)

- Overloaded methods
- Overloading constructors

### LINQ theory

- Extension methods
- Ienumerability
- Query vs. method syntax

### Writing LINQ

- Arrays, lists and data tables
- Criteria and ordering
- Using LET expressions

### Advanced LINQ (*)

- Projecting data
- Anonymous types
- Forcing query execution
- Taking and skipping

### Types of model

- Code first
- Model first
- Database first

### Entity Frameworks

- Creating entity data models
- Data contexts
- Updating models

### LINQ with Entity Frameworks

- Creating a data context
- Selecting data using LINQ
- Using relationships (associations)
- Adding, editing and deleting

### Advanced LINQ with EF (*)

- Returning anonymous types
- Using stored procedures
- Extending (partial classes)

### Grouping using LINQ (*)

- IGrouping and IEnumerable
- Grouping keys
- Group into and ordering
- Using multiple keys

## Pre-requisites for Fast track C# course

You don't need any programming experience to attend this course (although if you've used other languages this will be useful), but you do need to be a quick learner.  If you strugged with maths at school this probably isn't the right course for you!

## Prices

| Venue | Address | Price per place |
|---|---|---|
| London | Landmark, 99 Bishopsgate, London EC2M 3XD | £1,995 per person + VAT |
| Manchester | Holiday Inn, 25 Aytoun Street, Manchester M1 3AE | £1,695 per person + VAT |
| Online | Your home or office! | £1,350 per person + VAT |

## Scheduled Dates

| Dates | Venue | Times | Price per place | Booking |
|---|---|---|---|---|
| Tue/Thu 31st Mar/2nd April 2026 | Online | 09:30-16:30 | £1,350 + VAT | Book this |
| Tue/Thu 05-07 May 2026 | Online | 09:30-16:30 | £1,350 + VAT | Book this |
| Tue/Thu 02-04 June 2026 | Online | 09:30-16:30 | £1,350 + VAT | Book this |
| Wed/Fri 01-03 July 2026 | Online | 09:30-16:30 | £1,350 + VAT | Book this |
| Mon/Wed 03-05 August 2026 | Online | 09:30-16:30 | £1,350 + VAT | Book this |

If you can't see the dates that you want, ask us about organizing a customized course at your office (we'll provide and set up the computers), or else an online course tailored to your needs.