

# Intermediate C#

2 day training course



## Course contents

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

### 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
- InitializeComponent 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 Intermediate C# course

You should not attend this course if you are a beginner at C# programming (in which case choose our two-day introduction to C# course instead).

### Prices

Venue	Address	Price per place
<a href="#">London</a>	Landmark, 99 Bishopsgate, London EC2M 3XD	£1,525 per person + VAT
<a href="#">Manchester</a>	Holiday Inn, 25 Aytoun Street, Manchester M1 3AE	£1,150 per person + VAT
<a href="#">Online</a>	Your home or office!	£995 per person + VAT

### Scheduled Dates

Dates	Venue	Times	Price per place	Booking
Tue/Wed 10-11 March 2026	Online	09:30-16:30	£995 + VAT	<a href="#">Book this</a>
Wed/Thu 01-02 April 2026	Online	09:30-16:30	£995 + VAT	<a href="#">Book this</a>
Tue/Wed 05-06 May 2026	Online	09:30-16:30	£995 + VAT	<a href="#">Book this</a>
Tue/Wed 02-03 June 2026	Online	09:30-16:30	£995 + VAT	<a href="#">Book this</a>
Mon/Tue 29-30 June 2026	Online	09:30-16:30	£995 + VAT	<a href="#">Book this</a>

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.