Fast track C#

Classroom training course

3 day course outline

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

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

Topics taken 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

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.