This course covers the following topics (any items marked with a * 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
- 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

Maximum 6 people per course. Scheduled classroom courses include lunch at a local restaurant; you can see how our online training works here. For more information, see https://www.wiseowl.co.uk/.