[0050] Our "3-D" Roadmap

The "C# Language" Dimensions

From a purely C# language perspective, this course is divided into three main parts:

1. Learning the non-Object Oriented parts of C#
2. Learning the Object Oriented parts of C#
3. Writing larger programs using what we have learned

Part 1 will take 2 weeks. Part 2 will take 3 weeks. Then we will have the mid-term exam. Part 3 will take the remaining weeks. Then we will have the final exam.

You can think of the C# part of the course as having two dimensions - **syntax** (creating a program that compiles without errors) and **semantics** (creating a program that does what we need it to do). If you have two dimensions, you can create a flat map of your route. Along our journey, however, we will be learning more than just how to write C# programs...

The "Programming" Dimension

The name of this course is "Programming with C#" and, initially, most people focus on the "C#" part of that name. However, the name also contains the word "Programming" and *we will be learning a lot about real-world programming concepts in addition to the syntax and semantics of C#.*
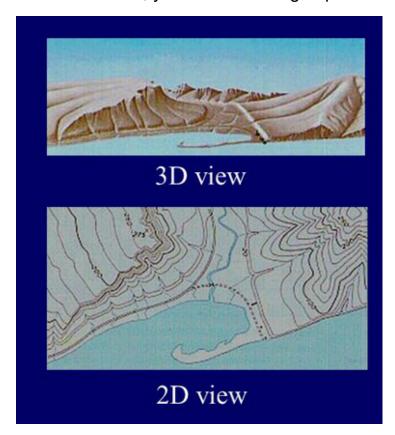
From a "Programming" perspective, this course also divides into five main parts:

1. Writing readable/maintainable code
2. Structured programming and Top-down design
3. Object-oriented program design
4. Data structures and collections
5. Error handling and testing

You will be learning these five key areas at the same time as you are learning the C# syntax and semantics. Most of these "Programming" concepts will be presented in the Canvas modules while most of the "C#" concepts will be presented in the textbook.

While this may sound like your workload has been doubled, that really isn't the case. Most of the "Programming" lessons should make it easier for you to complete your homework. Think of these two agendas as different dimensions of the same roadmap -

i.e. one is like a flat map showing you X and Y coordinates while the other shows you that, in the real world, you also need to go up and down.

Remember, my goal is to make you a better programmer.