

I2C Curriculum



Lesson 1

Unit Title	LESSON 1 – Introduction to programming and fundamentals
Level	Level 2 GCSE equivalent
Unit Code	1
Credit Value	20
Unit Aim	
<ul style="list-style-type: none">• Introduce tutors to student• Explain what programming is and its definition• Explain what Python is (a programming language) and why it's the focus of the 'Introduction to Coding' course• Guide the student through setting up their coding environment, which includes downloading Visual Studio code and file manoeuvring• Demonstrate use of the environment and demo "Hello world"• Outline the keywords in Python	
Learning Outcomes	
<p>On completion of this unit the Learner will:</p> <ul style="list-style-type: none">A. Have introduced themselves to the tutorB. Understand the basic principle of programming and be able to give its definitionC. Understand what Python is and why we are learning about itD. Have set up their coding environment and understand how to manoeuvre filesE. Start their coding journey with the use of "Hello world"F. Understand Python keywords	

Lesson 2

Unit Title	LESSON 2 – Variables Pt. 1
Level	Level 2 GCSE equivalent
Unit Code	2
Credit Value	20
Unit Aim	
<ul style="list-style-type: none">Recapped lesson 1 and checked for understandingExplain what a variable is and the five different data types within Python	
Learning Outcomes	
<p>On completion of this unit the Learner will:</p> <ul style="list-style-type: none">A. Recapped lesson 1 and checked for understanding (i.e. Python keywords)B. Understand and demonstrate with examples, the use of variables i.e.<ul style="list-style-type: none">- Sequence Data typesC. Understand the use of quotations in Python	

Lesson 3

Unit Title	LESSON 3 – Variables Pt. 2
Level	Level 2 GCSE equivalent
Unit Code	3
Credit Value	20
Unit Aim	
<ul style="list-style-type: none">Recapped lesson 2 and checked for understandingContinue lesson 2 and teach the remainder of the course set variables	
Learning Outcomes	
<p>On completion of this unit the Learner will:</p> <p>A. Recapped lesson 2 and checked for understanding (i.e. what are variables and what is a Sequence Data type)</p> <p>B. Understand and demonstrate with examples, the use of the following variables:</p> <ul style="list-style-type: none">- Numeric- Sets- Dictionaries- Booleans	

Lesson 4

Unit Title	LESSON 4 – Operators and Decision making
Level	Level 2 GCSE equivalent
Unit Code	4
Credit Value	20
Unit Aim	
<ul style="list-style-type: none">Recapped lesson 3 and checked for understandingIntroduce and explain the main Operators in Python and Decision MakingCover the importance of lines and indentation	
Learning Outcomes	
<p>On completion of this unit the Learner will:</p> <p>A. Recapped lesson 3 and checked for understanding (i.e. what is a variable and a set)</p> <p>B. Understand what an operator is and demonstrate its variations with examples i.e.</p> <ul style="list-style-type: none">- Arithmetic operators- Comparison operators- Logical operators- Decision making <p>C. Understand the importance of lines and indentation and how to write it in Python</p>	

Lesson 5

Unit Title	LESSON 5 – Loops and Functions
Level	Level 2 GCSE equivalent
Unit Code	5
Credit Value	20
Unit Aim	
<ul style="list-style-type: none">• Overview and recap of lesson 4• Introduce and explain loops and functions	
Learning Outcomes	
<p>On completion of this unit the Learner will:</p> <p>A. Recapped lesson 4 and checked for understanding (i.e. what is an operator and the different types)</p> <p>B. Understand the use of loops and functions:</p> <ul style="list-style-type: none">- For loops/ while loops- Functions- Function arguments (Required, Keyword, Default, Variable length)- Function returns	