

### Summary Information

<b>Module Code</b>	4200COMP
<b>Formal Module Title</b>	Introduction to Programming
<b>Owning School</b>	Computer Science and Mathematics
<b>Career</b>	Undergraduate
<b>Credits</b>	20
<b>Academic level</b>	FHEQ Level 4
<b>Grading Schema</b>	40

### Module Contacts

#### Module Leader

Contact Name	Applies to all offerings	Offerings
Bo Zhou	Yes	N/A

#### Module Team Member

Contact Name	Applies to all offerings	Offerings
David Lamb	Yes	N/A
Denis Reilly	Yes	N/A
Daniel Doolan	Yes	N/A
Hoshang Kolivand	Yes	N/A
Athanasios Zolotas	Yes	N/A
Mahmoud Hashem Eiza	Yes	N/A
Kirsty Lever	Yes	N/A
Michael Mackay	Yes	N/A
Sorren Hanvey	Yes	N/A

Pavel Semukhin	Yes	N/A
Fariba Sharifian	Yes	N/A

### Partner Module Team

Contact Name	Applies to all offerings	Offerings
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### Teaching Responsibility

LJMU Schools involved in Delivery
Computer Science and Mathematics

### Learning Methods

Learning Method Type	Hours
Lecture	22
Practical	22

### Module Offering(s)

Offering Code	Location	Start Month	Duration
SEP-CTY	CTY	September	12 Weeks

### Aims and Outcomes

<b>Aims</b>	To gain an understanding of how software is developed. To become familiar with a range of computer programming paradigms. To develop basic problem solving skills in computing. To prepare students for software development at higher levels.
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### Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Apply knowledge of programming constructs and basic algorithms.
MLO2	Demonstrate problem solving skills by producing simple programming solutions.
MLO3	Evaluate alternatives and make sound judgements regarding programming solutions.
MLO4	Investigate integrated development environments & application programming interfaces.
MLO5	Demonstrate basic knowledge of the object oriented programming paradigm.

## Module Content

### Outline Syllabus

Programming Overview & History  
The Language & IDE  
Basic Elements  
Variables & Constants  
Operators, Expressions & Statements  
Basic I/O & File I/O  
Selection  
Boolean Operators & Expressions  
If, If-Else & Switch-Case  
Iteration  
While, For & Do-While  
Break  
Collections  
Array and ArrayList  
String and char Types  
User-Defined Methods  
Return Types  
Parameters  
Scope  
User-Defined Classes  
Members  
Constructors  
Exceptions & Event Handling  
Try, Catch & Finally

### Module Overview

In this module you are delivered programming and problem solving skills with no prior assumptions of programming experience. Given the importance of programming to computer science, this module will encourage you to study more specialised software development topics. You will gain an understanding of how software is developed and become familiar with a range of computer programming paradigms.

### Additional Information

This module delivers programming and problem solving skills, with no prior assumptions of programming experience. Given the importance of programming to computer science this module will encourage students to study more specialized software development topics.

## Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Portfolio	Simple Application	40	0	MLO2, MLO1
Technology	Complex Application	60	0	MLO5, MLO4, MLO3