Liverpool John Moores University

Title:	Introduction to Programming
Status:	Definitive
Code:	**4200COMP** (127961)
Version Start Date:	01-08-2021
Owning School/Faculty:	Computer Science and Mathematics
Teaching School/Faculty:	Computer Science and Mathematics

Team	Leader
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Academic Level:	FHEQ4	**Credit Value:**	20	**Total Delivered Hours:**	44
Total Learning Hours:	200	**Private Study:**	156		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	22
Practical	22

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Technology	AS1	Simple Application	40	
Technology	AS2	Complex Application	60	

Aims

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.

Learning Outcomes

After completing the module the student should be able to:

1	Apply knowledge of programming constructs and basic algorithms.
2	Demonstrate problem solving skills by producing simple programming solutions.
3	Evaluate alternatives and make sound judgements regarding programming solutions.
4	Investigate integrated development environments & application programming interfaces.
5	Demonstrate basic knowledge of the object oriented programming paradigm.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Simple Application	1	2	
Complex Application	3	4	5

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

Learning Activities

Learning activities include lectures where students are encouraged to ask questions and discuss scenarios, and supported labs where students are encouraged to put theory gained though lectures into practice.

Notes

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.