Liverpool John Moores University

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Title:	Programming
Status:	Definitive
Code:	**3606FNDHB** (124490)
Version Start Date:	01-08-2017

Owning School/Faculty: Computer Science
Teaching School/Faculty: Hugh Baird College

Team	Leader
Hulya Francis	Y
Gyu Myoung Lee	
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Academic Level:	FHEQ3	**Credit Value:**	10	**Total Delivered Hours:**	33
Total Learning Hours:	100	**Private Study:**	67		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	11
Practical	22

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	AS1	Programming Labs	100	

Aims

- To introduce the student to the software development process.
- To become conversant with a range of computer programming environment and their applications.

- To develop problem solving skills in computing.

This module is intended to be of use to students who wish to study a range of degree programmes in the Engineering or Technology areas.

Learning Outcomes

After completing the module the student should be able to:

1.   Demonstrate 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.

Learning Outcomes of Assessments

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

Programming Labs   1   2   3

Outline Syllabus

The list below provides an indicative list of topics which may be covered in this module:

Computer Programming with Python
  Programming Overview & History
  The Language & IDE
  Basic Elements
  Procedural Programming
  Setting up a Python programming environment
  Python Scripting Fundamentals
  Producing a script
  Formatting a script
  Python variables
  Python data types
  Input to Python scripts
  Arithmetic in Python
  Mathematical operators
  Division, floors and truncation
  Mathematics module
  NumPy Libraries
  Program Control
  Selection Statements
  Loop Constructs

Learning Activities

Student-focused learning activities based on a combination of lectures and classroom activities with practical, experiential learning in laboratories designed to reinforce and increase the student learning experience.

Notes

This module introduces the student to the fundamental concepts of programming and their practical application.