Algorithms, Computing and Programming

Module Information

2022.01, Approved

Summary Information

Module Code	3507FETQR
Formal Module Title	Algorithms, Computing and Programming
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 3
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Oryx Universal College WLL

Learning Methods

Learning Method Type	Hours
Lecture	11
Practical	22

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-PAR	PAR	January	12 Weeks

Aims and Outcomes

Aims	This module aims to provide students with an introduction to technical computingand the application of computers in the implementation of simple algorithms. This issupported by a syllabus which covers the key elements of decision mathematics andan introduction to computer programming. - To introduce the student to the area of computer systems.- To provide an understanding of the underlying computing platform (hardware, OS, network) upon which applications are developed and hosted.- To introduce students the key elements of decision mathematics and simple algorithms.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Identify the main components of standard computer hardware architectures, the role of an operating system, the file system, networking and standard hardware interfaces.
MLO2	2	Explain the fundamental concepts and issues involved in computer networking.
MLO3	3	Describe the fundamental principles of decision mathematics and the characteristics of an algorithm.

Module Content

Outline Syllabus	The list below provides an indicative list of topics which may be covered in this module:Computer Systems Architecture HardwareSoftwareNetworksNumber Systems and LogicIntroduction to AlgorithmsCorrectnessFinitenessGeneralityStopping ConditionsDescribing AlgorithmsFlow ChartsPseudo CodeExample Algorithms
Module Overview	
Additional Information	This module introduces the student to the fundamental concepts of the computer science field and their practical application

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Examination	100	1.5	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Andy Symons	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings