UNIVERSITY of BRADFORD

Module Descriptor

Module Details	
Module Title	Fundamentals of Programming
Module Code	COS4016-B
Academic Year	2020/1
Credits	20
School	Department of Computer Science
Subject Area	Computer Science
FHEQ Level	FHEQ Level 4
Pre-requisites	N/A
Co-requisites	N/A

Contact Hours	
Type	Hours
Online Lecture (Asynchronous)	16
Laboratories	48
Directed Study	136

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 1

Module Aims

To introduce fundamental principles of computer programming and software construction.To develop skills in problem solving applied to computer programming.

Outline Syllabus

Introduction to problem solving techniques and their part in the software development process). Basic software tools for software development. The concepts of object, class and interface. Program constructs: sequence, selection and iteration. Testing and debugging programs.

Learning Outcomes	
Outcome Number	Description
01	apply the basics of software construction and the tools required to support it in programs;
02	apply basic principles of computer programming to common problems; analyse and run computer program code; test and evaluate programs against basic requirements.
03	apply algorithmic problem solving approaches.

Learning, Teaching and Assessment Strategy

Learning outcomes are developed through online lecture classes with interactive Q&A from module staff that introduce concepts and connective material and present and review exercises, supplemented by online laboratory-based exercises, with real-time support from module staff, and coursework that provide practical experience and develop skills and techniques and address learning outcomes and complemented by weekly supervised laboratory classes (to provide some individual tuition and resolve problems) and provide students with the opportunity to receive continuous feedback on programming and development skills and address learning outcomes. Directed study includes reading activities, individual exercises and revision of concepts taught in the teaching sessions, and individual reading and application of documentation and programming examples from technical reports and book sections as well as the majority of practical work necessary to complete the coursework.

Mode of Assessment				
Type	Method	Description	Length	Weighting
Summative	Coursework	An exercise in problem solving involving the development of computer software and an accompanying written report	N/A	100%

Reading List

To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html

Please note:
This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.
