

Module Details	
Module Title	Software Development
Module Code	COS7009-B
Academic Year	2021/2
Credits	20
School	Department of Computer Science
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Lectures	12
Laboratories	24
Directed Study	164

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

Module Aims
The aim of this module is to introduce basic programming skills through a modern object-oriented programming language, design methods and tools.

Outline Syllabus
<ol style="list-style-type: none"> 1. Object-oriented programming. 2. Object-oriented design method. 3. Modern operating system and its tools. 4. Programming constructs, data and control structures. 5. Advanced topics in programming. 6. Testing and debugging programs.

Learning Outcomes	
Outcome Number	Description
01	Demonstrate an advanced and systematic knowledge of design and development through testing of software applications using object oriented principle.
02	Analyse and effectively use integrated development environment.
03	Apply modern paradigms to software development transferring theoretical concepts to practical applications.
04	Solve complex software development problems both systematically and creatively.

Learning, Teaching and Assessment Strategy
<p>The module will be delivered in a series of on-campus lectures, supported by supervised laboratory work, both on campus and online, through the use of learning technologies. The module utilizes case studies and real world problems in the lab sessions to enable applications of concepts learned in different situations.</p> <p>The module is assessed using a coursework assignment which test skills, practical understanding and theoretical concepts on: Object-oriented concepts and applications. Operating Systems. Basic Algorithms and Object-oriented applications, Object-oriented design and Object-oriented programming in depth, and an online MCQ test, assessed during the module, to help evaluate and solidify students' understanding of learning to date. Students receive formative feedback on the final work submitted. Students also receive feedback on case studies and work set for lab sessions during teaching hours and through staff office hours and other forms of consultations.</p>

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Online MCQ Examination	Computer based test (2 Hrs)	50%
Summative	Coursework - Artefact	Individual Coursework	50%

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.