

Module Details	
Module Title	Introduction to Computing
Module Code	COS3003-B
Academic Year	2023/4
Credits	20
School	Department of Computer Science
FHEQ Level	RQF Level 3

Contact Hours	
Type	Hours
Lectures	12
Laboratories	12
Directed Study	176

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 2

Module Aims
<p>Computing is everywhere in modern society, so it is important to have an appreciation of the benefits it brings, as well as the downsides.</p> <p>This module aims to introduce foundational concepts relevant to the field computing and to develop practical computing skills through laboratory exercises and case studies.</p>

Outline Syllabus
<p>Foundational mathematical concepts underpinning computer science. Introductory programming and algorithmic thinking. Design and engineering for the creation of software systems. Technologies and languages underpinning the Internet. An introduction to cybersecurity. An overview of artificial intelligence.</p>

Learning Outcomes	
Outcome Number	Description
LO1	Apply practical computing skills to a variety of real world application areas.
LO2	Demonstrate understanding of theoretical concepts that underpin the discipline of computing.
LO3	Apply practical computing skills to a variety of real world application areas.

Learning, Teaching and Assessment Strategy
<p>The module is taught using a mixture of lectures that deliver theoretical concepts and terminology, and practical lab sessions that build upon the lectures and develop practical skills in a variety of computing topics. Concepts, principles and theories are presented in lectures, which includes worked examples and tasks for the students to complete so they can test their understanding of the material. These are supported by lab classes, where students are given exercises to complete related to the lecture material. They are also free to ask any questions they may have about the material. Extensive oral feedback is given during the lab classes.</p> <p>The module is assessed through two pieces of coursework, one delivered part way through the module to facilitate timely feedback on student progress and attainment.</p> <p>The artefact coursework (30% weighting) involves the design and/or development of computer software.</p> <p>The other coursework (70% weighting) is an essay requiring the demonstration of knowledge and understanding of theoretical concepts and ability to solve Computer Science problem.</p>

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Coursework - Artefact	An exercise involving the design and/or development of computer software.	30%
Summative	Coursework	Essay demonstrating theoretical concepts to solve Computer Science problem (2000 words).	70%

Reading List
To access the reading list for this module, please visit <a href="https://bradford.rl.talis.com/index.html">https://bradford.rl.talis.com/index.html</a>

*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.*