

Module Details	
Module Title	Introduction to Programming
Module Code	BIC3021-A
Academic Year	2022/3
Credits	10
School	UoB International College
FHEQ Level	RQF Level 3

Contact Hours	
Type	Hours
Directed Study	50
Lectures	30
Laboratories	20

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 2
BDA	University of Bradford / Semester 3

Module Aims
This module builds on students' prior studies and other background knowledge and prepares them for the work that they will do later on in their Computer Science degree. This module introduces students to the language and process of programming. The general principles are outlined and then students develop their programming skills by learning to programme using Java. The teaching approach will involve some theory and trouble-shooting sessions but will feature a significant number of hours engaged in the practical work involved in learning and working with Java as a programming language.

Outline Syllabus

Introduction to the purpose of programming and how a programming language makes this achievable.

The development of Java as a programming language; an appreciation of Java as an accessible and user-friendly language with uncluttered syntax and grammar, and highly extensible.

Object-oriented and structural programming supported by Java.

Examples of application and use of Java.

Workshop sessions learning to programme with Java.

Practical exercises in the use of Java to provide programming solutions to basic problems.

Learning Outcomes

Outcome Number	Description
1	Demonstrate an understanding of the concept of variables and expressions.
2	Demonstrate an understanding of basic data types and how they are used.
3	Demonstrate an understanding of control flow constructs, for example, loops, conditional statements.
4	Structure a code by implementing usable functions.
5	Demonstrate an understanding of basic object-oriented concepts such as classes and methods.

Learning, Teaching and Assessment Strategy

Students will learn in small interactive groups (max 18 students) on learner-centred tasks and with a highly interactive approach to learning and teaching. Students will participate in programming activities in sessions based in a computer laboratory. During the module, formative assignments will be set to provide students with detailed and helpful feedback. The students will be encouraged throughout to reflect on their own performance and the feedback they receive informs sessions with their personal tutor. The personal tutor monitors student performance and supports suggestions for improvement. The personal tutor can draw the senior team's attention to a struggling student through the 'at risk' process.

The summative assessment for this module will be the compilation and submission of a portfolio of tasks linked to the theoretical aspects of the subject and the practical programming exercises that the students are set. The portfolio builds throughout the module and is submitted for grading in the final week

Mode of Assessment

Type	Method	Description	Weighting
Summative	Coursework - Written	Portfolio of written and practical tasks (2000 words)	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.

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