COURSE SPECIFICATION DOCUMENT

Academic Department:	Dept of Science, Innovation & Technology
Programme:	BSc Computer Science
***FHEQ* Level:**	4
Course Title:	Introduction to Programming
Course Code:	COMP 4101
Student Engagement Hours:	160
Timetabled Hours:	45
Guided Learning Hours:	15
Independent Learning Hours:	100
Credits	16 UK CATS credits 8 ECTS credits 4 US credits

Course Description:

This course provides the fundamentals of object-oriented programming. This will include usage of variables, objects, classes; assignment and control through statements, loops, functions, procedures, interaction between objects and inheritance. This course may introduce any current specialists programming topics, eg. programming for mobile applications.

Prerequisites:

None

Aims and Objectives:

By the end of this course, students will be able to plan and execute object-oriented programming code to demonstrate control structures and other object-oriented concepts. Students will also learn the skills to create a range of small programs that demonstrate their ability to solve problems within a web programming context using tools such as JavaScript.

Programme Outcomes:

L4: AI, BI, CI, DI

A detailed list of the programme outcomes are found in the Programme Specification. This is located at the archive maintained by Registry and found at: https://www.richmond.ac.uk/programme-and-course-specifications/

Learning Outcomes:

By the end of this course, successful students should be able to:

- Understand and explain object-oriented programming concepts
- Plan and execute small programs that demonstrate control structures
- Plan and execute small programs that demonstrate object-oriented programming
- Demonstrate basic programming skills for problem solving

Indicative Content:

- Variables and objects
- Loops and arrays
- Functions
- Conditionals
- Data structures
- Drawing in 2D

Assessment:

This course conforms to the University Assessment Norms approved at Academic Board and located at: https://www.richmond.ac.uk/university-policies/

Teaching Methodology:

This course will be delivered face to face through a combination of lectures and interactive sessions. In addition to classroom activities, there are guided learning elements that are tutor led and arranged through Blackboard. These activities can be asynchronous online sessions, flipped classrooms, set readings with discussion boards or set guest lectures for example. Set activities are monitored by the instructor to ascertain student engagement. Students are encouraged to prepare for class and to play an active part, to raise questions, following-up ideas and interact with a wide range of provided material.

Indicative Text(s):

Flanagan D. (2020) *JavaScript – The Definitive Guide: Master the World's Most-Used Programming Language.* 7th edn. USA: O'Reilly Media.

Journals/Additional Texts

Weisfeld, M., (2018) *The Object-Oriented Thought Process. 5th edn.* New York: Addison-Wesley.

Websites

p5.js. Available at: https://p5js.org/ (Accessed: November 2024).

See syllabus for complete reading list.

Change Log for this CSD:

Nature of Change	Date Approved & Approval Body (School or AB)	Change Actioned by Registry Services
First edition	Nov 2024	