COURSE SPECIFICATION DOCUMENT

Academic School / Department: School of Liberal Arts

Programme: Computer Science
                                                           Digital Marketing

FHEQ **Level:**   4

Course Title: Introduction to Programming

Course Code: DGT 4101

Student Engagement Hours: 120

Lectures: 22.5
Lab: 22.5
Independent / Guided Learning: 75

Credits: 12 UK CATS credits
                                                            6 ECTS credits
                                                            3 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:
MTH 3111 Functions with Applications OR
DGT 3100 Fundamentals of Programming

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:

Computer Science: A2, A6, B1, B5, B6, C3 and C4
Digital Marketing: A5, A6, B1, B2, B4, C1, C2, D2, D3

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:
- Lectures, practical demonstrations and step-by-step software tutorials, class workshops, one-to-one tutorials.

Indicative Text(s):
 "JavaScript – The Definitive Guide: Master the World's Most-Used Programming Language" by David Flanagan, O'Reilly, Seventh Edition, 2020

Journals/Additional Texts
Weisfeld, M., 2018. *The Object-Oriented Thought Process, Fifth Edition.* New York: Addison-Wesley.

Web Sites
P5js.org

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
Revision – annual update	May 2023	