COURSE SPECIFICATION DOCUMENT

Academic School / Department:	School of Liberal Arts
Programme:	Computer Science Digital Marketing
***FHEQ* Level:**	5
Course Title:	Data Science
Course Code:	DGT 5106
Student Engagement Hours:	120 (standard 3- credit BA course)
Lectures:	22.5
Lab:	22.5
Independent / Guided Learning:	75
Semester:	Fall, Spring
Credits:	12 UK CATS credits 6 ECTS credits 3 US credits

Course Description:
This course focusses on how data and data sets relate to business contexts and how data can be visualised to provide meaning to complex data. The course explores web applications and programming skills required to programme data and apply existing knowledge in probability, statistics and programming to visualise data for specific business contexts.

Prerequisites:
MTH 4120 Probability and Statistics 1 OR DGT 4120 Data Analysis for Social Engagement
AND
DGT 4101 Introduction to Programming

Aims and Objectives:
By the end of this course, students will have a good understanding of data and data sets. They will have a good understanding of industry standard tools for data visualisation and be able to use their existing knowledge in probability, statistics and programming to reveal meaning within complex data sets. Students will also understand the role of data analysts and visualisations within the business context.

Programme Outcomes:

Computer Science: A1-4, A7, A8, B1, B5, B7, C6, C7

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 how data and data sets relate to data science
- Produce data visualisations to give meaning to complex data
- Apply probability, statistics and programming skills to programme data visualisations
- Relate data science to business contexts

Indicative Content:

- What is Data Science
- Data and data sets
- Using data for visualisation
- Web applications for data visualisations
- Programming for Data Science (eg. Python, R)
- Data Science applications in the real world
- Data science in the context of business

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):
"Data Science" by John D Kelleher and Brendan Tierney, MIT Press Essential Knowledge Series, 2018.

Journals
Click here to enter text.

Web Sites
https://www.oracle.com/uk/data-science/what-is-data-science/

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