

COURSE SPECIFICATION DOCUMENT

Academic School / Department:	School of Liberal Arts
Programme:	Computer Science
FHEQ Level:	6
Course Title:	Data Mining
Course Code:	DGT 6102
Student Engagement Hours:	160 (Standard 4- credit BA Course)
Lectures:	30
Lab:	15
Supervision:	40
Independent / Guided Learning:	75
Semester:	Fall, Spring
Credits:	16 UK CATS credits 8 ECTS credits 4 US credits

Course Description:

This course introduces text, web, and social media mining approaches in current digital contexts; the algorithms and technology behind it and provides programming skills necessary for data mining.

Prerequisites:

DGT 5101 Programming for Industry.

Aims and Objectives:

By the end of this course, students will have an understanding of how text, web, and social media mining works within current digital contexts in business, social, and other professional settings. Students will be able to create programmes for data mining by using knowledge discovery processes, specialised software, libraries and programming algorithms.

Programme Outcomes:

COMPSC: A2, A3, A4, A6, A7, B5, B7, C1, C2, C3 and C4

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 apply knowledge of data mining for business intelligence

- Understand and use algorithms for data mining
- Understand and utilise existing data mining tools
- Use text, web, social media analytics to mine data for businesses

Indicative Content:

- What is Data Mining
- Data Mining Processes
- Speech analytics
- Sentiment analysis
- Search engine optimisation
- Web content mining
- Web structure mining
- Web usage mining
- Social networks analysis and customer engagement

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):

“Business Intelligence and Analytics: Systems for Decisions Support” (Chapters 7 and 8) by Ramesh Sharda, Dursun Delen and Efrain Turban, Global (10th) Edition, 2014, Pearson.

“Introduction to Data Mining” by Pang-Ning Tan, Michael Steinback, Anuj Karpatne and Vipin Kumar, Global (2nd) Edition, 2019, Pearson

“Mining the Social Web, 3e: Data Mining Facebook, Twitter, LinkedIn, Instagram, Github, and more”, by Matthew A Russell and Mikhail Klassen, 2019, O’Reilly

Journals

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Web Sites

