

COURSE SPECIFICATION DOCUMENT

Academic School / Department:	School of Liberal Arts
Programme:	Computer Science
FHEQ Level:	5
Course Title:	Database Systems
Course Code:	DGT 5107
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 complements the front-end web design course by incorporating data into web development. This course covers data modelling, data representation, along with practical components of data protection and security using industry standard query platforms such as SQL and No SQL DBMS. Students will be able apply these server-side programming skills as a response to professional briefs.

Prerequisites:

None

Aims and Objectives:

By the end of this course, students will have the practical skills necessary to create a dynamic website that includes server-side databases that will also meet client and legal requirements of data protection and GDPR. Students will be able to use query platforms to program and test the databases.

Programme Outcomes:

COMPSC: A3, A7, B1, B2, B5, B7 and C6

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 the practical skills required in data protection and GDPR pertaining to data and the web
- Use databases within required constraints
- Demonstrate understanding of industry standard data representation via tools such as SQL and no SQL DBMS
- Build dynamic web applications that include data bases that meet user and legal requirements

Indicative Content:

- Introduction to databases
- Creating Webservers eg. Node js, Express
- Database querying
- SQL databases
- No SQL DBMS
- Understanding legal requirements and implications of data protection / GDPR
- Building Web Applications

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):

“Database Systems: A practical Approach to Design, Implementation, and Management” by Thomas Connolly and Carolyn Begg, Global Edition, 2014

Journals/Additional Texts

Calder, A. and Watkins, S., 2019. *IT Governance: An International Guide to Data Security And ISO 27001/ISO 27002*. 7th ed. London: Kohan Page.

Meier, A. and Kaufmann, M., 2019. *SQL & Nosql Databases*. Wiesbaden: Springer.

Web Sites

<https://ubuntu.com/tutorials/command-line-for-beginners#1-overview>

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	