

## MODULE DESCRIPTOR

### Module Title

Modelling with Databases

Reference	CBM203	Version	1
Created	November 2021	SCQF Level	SCQF 11
Approved	July 2018	SCQF Points	15
Amended	June 2020	ECTS Points	7.5

### Aims of Module

This module prepares students to scope, develop, and implement data management strategies for data collection, processing, storage, preservation and availability for further processing.

### Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Identify roles, develop teams and implement communication strategies in database projects
- 2 Plan a data management project, analysing and determining resource, priorities and deliverables
- 3 Demonstrate an advanced understanding of different data types and structures
- 4 Design relational and non-relational databases
- 5 Evaluate the most appropriate database platform for a given data management task
- 6 Design, implement and query a database

### Indicative Module Content

None.

### Module Delivery

The module is delivered via online exercises, workshops, industry speakers, case studies and lab tutorials.

### Indicative Student Workload

	Full Time	Part Time
Contact Hours	36	36
Non-Contact Hours	114	114
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	150
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

**ASSESSMENT PLAN**

If a major/minor model is used and box is ticked, % weightings below are indicative only.

**Component 1**

Type: Coursework Weighting: 100% Outcomes Assessed: 1, 2, 3, 4, 5, 6

Description: Design and implementation of a database project solution for an industry-relevant problem scenario to proof-of-concept stage.

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

The calculation of the overall grade for this module is based on 100% weighting of C1. An overall minimum grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	The student needs to achieve an A in C1.
<b>B</b>	The student needs to achieve a B in C1.
<b>C</b>	The student needs to achieve a C in C1.
<b>D</b>	The student needs to achieve a D in C1.
<b>E</b>	The student needs to achieve an E in C1.
<b>F</b>	The student needs to achieve an F in C1.
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

**Module Requirements**

Prerequisites for Module None.

Corequisites for module None.

Precluded Modules None.

**INDICATIVE BIBLIOGRAPHY**

- 1 HARRINGTON, J. L. (2016) *Relational database design and implementation*. Fourth edition. Amsterdam; Boston: Morgan Kaufmann/Elsevier
- 2 KEMPER, C. (2015). *Beginning Neo4j*. New York: Springer
- 3 LAKE, P. and CROWTHER, P. (2013). *Concise Guide to Databases*. London: Springer
- 4 PLUGGE, E., MEMBREY, P. and HAWKINS, T. (2010). *The definitive guide to MongoDB*. New York: Apress
- 5 ROCHKIND, M. (2013). *Expert PHP and MySQL*. New York: Springer