MODULE DESCRIPTOR

Module Title

Data Project Management

Reference	CBM205	Version	2
Created	January 2020	SCQF Level	SCQF 11
Approved	July 2018	SCQF Points	30
Amended	June 2020	ECTS Points	15

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

Roles and responsibilities in data management and sharing. Team management. Project Planning. Assessing risks to project deliverables. Agile methodologies. Structured and unstructured data. Introduction to database programming. Conceptual modelling: an introduction to simple entity-relationship modelling. The relational database model: tables, relationships, keys, joins and normalisation; creating tables using SQL. Database queries: an introduction to SQL queries, including the use of sub-queries. DBMS principles and structure. Relational, graph, and NoSQL databases and use cases. Deciding and applying selection criteria. Practical exercises in database development.

Module Delivery

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

| | | | | | | Module Ref: | | CBM205 v2 |

Indicative Student Workload	**Full Time**	**Part Time**
Contact Hours	72	72
Non-Contact Hours	228	228
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	300
Actual Placement hours for professional, statutory or regulatory body		

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:
A	The student needs to achieve an A in C1.
B	The student needs to achieve a B in C1.
C	The student needs to achieve a C in C1.
D	The student needs to achieve a D in C1.
E	The student needs to achieve an E in C1.
F	The student needs to achieve an F in C1.
NS	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