



MODULE SPECIFICATION

Part 1: Information			
Module Title	Database Design		
Module Code	UFCF7R-30-1	Level	Level 4
For implementation from	2020-21		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Overview: This module covers the basics of database theory and design.</p> <p>Educational Aims: You will cover a wide range of; conceptual data modelling (entity relationship models), relational theory and tools for designing a database and its interface, database design and normalization.</p> <p>Outline Syllabus: Database driven solutions.</p> <p>Foreign keys and data relationships and dependencies within a functioning database.</p> <p>Systematic approaches to eliminating data redundancy(repetition) and undesirable characteristics like Insertion, Update and Deletion Anomalies – Database Normalisation.</p> <p>Data Flow Diagrams (DFD) depicting the flow of data throughout a given process or system.</p> <p>Entity Relationship Diagrams (ERD) explaining an application/system and the relationships between its various input and outputs.</p> <p>Relationships, data ownership and constraints within a database in the form of a Database Dictionary.</p>

STUDENT AND ACADEMIC SERVICES

Teaching and Learning Methods: Introductory lectures are supported by practical workshops. In addition, this module will be supported by interactive forums and learning tools. You will have access to a suitable publicly accessible hosting platform and database server enabling you to complete this module.

Part 3: Assessment

This module is assessed by a combination of techniques: an practical, timed constrained assessment and a portfolio.

The timed task allows the students to demonstrate their knowledge and understanding of database analysis and design. The task takes place within a lab setting in order that the students have access to tools with which they are familiar. The portfolio assessment follows the timed task. In the portfolio, students take their learning from the initial assessment and move on through the development life cycle to implement, document and test a functioning database.

Tutor-led formative feedback is available throughout. The students confidence in the assessment process is scaffolded through the use of mock assessments.

Success is further supported by regular meetings with a personal tutor in which progress across the programme is reviewed and feedback on individual assessment items is given via SMART targets. This strategy is built-in as part of the programme design.

First Sit Components	Final Assessment	Element weighting	Description
Practical Skills Assessment - Component A		40 %	Practical database task.
Portfolio - Component B	✓	60 %	Portfolio - build and test a database solution
Resit Components	Final Assessment	Element weighting	Description
Practical Skills Assessment - Component A		40 %	Practical database task.
Portfolio - Component B	✓	60 %	Portfolio - build and test a database solution

STUDENT AND ACADEMIC SERVICES

Part 4: Teaching and Learning Methods																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th style="text-align: left;">Module Learning Outcomes</th> <th style="text-align: left;">Reference</th> </tr> </thead> <tbody> <tr> <td>Design a complex database that employs data relationships, constraints and ownership.</td> <td>MO1</td> </tr> <tr> <td>Optimise a database to reduce redundancies and data handling anomalies via Normalization</td> <td>MO2</td> </tr> <tr> <td>Explain database relationships, ownership and constraints with a Database Dictionary</td> <td>MO3</td> </tr> <tr> <td>Plan, design, implement and test a Database solution using appropriate tools.</td> <td>MO4</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Design a complex database that employs data relationships, constraints and ownership.	MO1	Optimise a database to reduce redundancies and data handling anomalies via Normalization	MO2	Explain database relationships, ownership and constraints with a Database Dictionary	MO3	Plan, design, implement and test a Database solution using appropriate tools.	MO4						
Module Learning Outcomes	Reference																
Design a complex database that employs data relationships, constraints and ownership.	MO1																
Optimise a database to reduce redundancies and data handling anomalies via Normalization	MO2																
Explain database relationships, ownership and constraints with a Database Dictionary	MO3																
Plan, design, implement and test a Database solution using appropriate tools.	MO4																
Contact Hours	<table border="1"> <thead> <tr> <th colspan="2" style="text-align: left;">Independent Study Hours:</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Independent study/self-guided study</td> <td style="text-align: center;">192</td> </tr> <tr> <td style="text-align: right;">Total Independent Study Hours:</td> <td style="text-align: center;">192</td> </tr> <tr> <th colspan="2" style="text-align: left;">Scheduled Learning and Teaching Hours:</th> </tr> <tr> <td style="text-align: center;">Face-to-face learning</td> <td style="text-align: center;">108</td> </tr> <tr> <td style="text-align: right;">Total Scheduled Learning and Teaching Hours:</td> <td style="text-align: center;">108</td> </tr> <tr> <td>Hours to be allocated</td> <td style="text-align: center;">300</td> </tr> <tr> <td>Allocated Hours</td> <td style="text-align: center;">300</td> </tr> </tbody> </table>	Independent Study Hours:		Independent study/self-guided study	192	Total Independent Study Hours:	192	Scheduled Learning and Teaching Hours:		Face-to-face learning	108	Total Scheduled Learning and Teaching Hours:	108	Hours to be allocated	300	Allocated Hours	300
Independent Study Hours:																	
Independent study/self-guided study	192																
Total Independent Study Hours:	192																
Scheduled Learning and Teaching Hours:																	
Face-to-face learning	108																
Total Scheduled Learning and Teaching Hours:	108																
Hours to be allocated	300																
Allocated Hours	300																
Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://rl.talis.com/3/uwe/lists/FB784309-98FA-C1BE-3F6F-3CD7FED82147.html</p>																

Part 5: Contributes Towards	
<p>This module contributes towards the following programmes of study:</p> <p>Applied Computing[Sep][FT][UCW][3yrs] BSc (Hons) 2020-21</p>	