MODULE DESCRIPTOR

Module Title

Introduction To Database Systems

Reference	CM2020	Version	6
Created	October 2017	SCQF Level	SCQF 8
Approved	April 2005	SCQF Points	15
Amended	October 2017	ECTS Points	7.5

Aims of Module

To provide the student with the ability to explain the techniques of database design and to implement such designs on a relational database management system (DBMS).

Learning Outcomes for Module

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

1	Describe, analyse and apply a conceptual database modelling technique.
2	Describe, analyse and apply techniques for obtaining a logical model from a conceptual model.
3	Describe and apply SQL's data definition and manipulation languages.
4	Describe and evaluate the structure and underlying principles of a relational DBMS.
5	Implement and test a database application with suitable interface using a relational DBMS.

Indicative Module Content

Introduction to relational database management systems. The relational model: relations, keys and relational algebra. Conceptual and logical modelling with: Entity-Relationship modelling and normalisation techniques. SQL: data definition and manipulation language.

Module Delivery

Key concepts are introduced and illustrated through lectures. The understanding of the student is tested and further enhanced through interactive tutorials. In the laboratories the students will progress through a sequence of exercises to develop sufficient knowledge of a relational DBMS environment to enable them to complete the practical implementation of a relational database application.

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Indicative Student Workload	Full Time	Part Time
Contact Hours	70	N/A
Non-Contact Hours	80	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
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:	Examination	Weighting:	50%	Outcomes Assessed:	1, 2, 3, 4
Description:	Closed book examination.				

Component 2

Type:	Coursework	Weighting:	50%	Outcomes Assessed:	5
Description:	A piece of coursework.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on a 50% weighting for C1 and a 50% weighting for C2. An overall minimum grade D is required to pass the module.

		Examination:						
		A	**B**	**C**	**D**	**E**	**F**	**NS**
Coursework:	**A**	A	A	B	B	C	E	
	B	A	B	B	C	C	E	
	C	B	B	C	C	D	E	
	D	B	C	C	D	D	E	
	E	C	C	D	D	E	E	
	F	E	E	E	E	E	F	
	NS	Non-submission of work by published deadline or non-attendance for examination						

Module Requirements

Prerequisites for Module	None, in addition to course/programme entry requirements.
Corequisites for module	None.
Precluded Modules	None.

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INDICATIVE BIBLIOGRAPHY

1	CONNOLY, T. and BEGG, C. 2014 Database Systems - A Practical Approach to Design, Implementation and Management. 6th edition. Addison Wesley.
2	RITCHIE, C.,2008. Database Principles and Design. Cengage Learning
3	ELMASRI, R. and NAVATHE, S., 2015. Fundamentals of Database Systems. 7th Ed. Addison Wesley.
4	FEUERSTEIN, S., 2014. Oracle PL/SQL Programming. O?Reilly
5	LEBLANC, P., 2013. Microsoft SQL Server 2012 Step by Step. Microsoft Press