APPROVED

DBMS C7007: Database Development

Module Details

Module Code:	DBMS C7007
Full Title:	Database Development APPROVED
Valid From::	Semester 1 - 2019/20 (June 2019)
Language of Instruction:	English
Duration:	1 Semester
Credits::	5
Module Owner::	Stephen Larkin
Departments:	Unknown
Module Description:	Students completing this module will understand and be able to apply database design techniques. They will have designed and implemented a database system and carried out data manipulation and data definition statements.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	**Module Learning Outcome Description**
MLO1	Apply database design techniques.
MLO2	Explain the Relational Model and apply Relational Integrity Rules.
MLO3	Construct Data Manipulation Statements.
MLO4	Construct Data Definition Statements.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named DkIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).*
No recommendations listed

Module Indicative Content
The Relational Data Model History, Mathematical Relations, Relational Algebra; ANSI-SPARC Database Schema
Database Analysis and Design Database Development Process (Conceptual, Logical, Physical); Data Redundancy and Update Anomalies; Functional Dependencies, Identification of Primary Key; Normalisation Process (up to Third Normal Form)
Integrity Constraints - Definition and Application Nulls, Entity, Referential, Domain, General/Business
SQL: Data Manipulation Simple Queries, Sorting, Aggregate Functions; Grouping, Subqueries; Simple Joins; Update, Insert, Delete
SQL: Data Definition Creating and Managing Tables; Required Data, Domain Constraints, General Constraints; Entity Integrity, Referential Integrity Application; Creating and using Sequences; Views and Access Control
SQL: Functions Using Character and Number functions; Data and conversion functions

Module Assessment

Assessment Breakdown	%
Course Work	100.00%

Module Special Regulation

Assessments

Full Time On Campus

Course Work

Assessment Type	Continuous Assessment	**% of Total Mark**	30
Marks Out Of	0	**Pass Mark**	0
Timing	Week 8	**Learning Outcome**	1,2,3,4
Duration in minutes	0		
Assessment Description	Practical Lab Test		
Assessment Type	Multiple Choice Questions	**% of Total Mark**	20
Marks Out Of	0	**Pass Mark**	0
Timing	Week 12	**Learning Outcome**	1,2,3,4
Duration in minutes	0		
Assessment Description	n/a		
Assessment Type	Continuous Assessment	**% of Total Mark**	50
Marks Out Of	0	**Pass Mark**	0
Timing	End-of-Semester	**Learning Outcome**	1,2,3,4
Duration in minutes	0		
Assessment Description	Group Project		

No Project

No Practical

No Final Examination

Part Time On Campus

Course Work

Assessment Type	Continuous Assessment	**% of Total Mark**	30
Marks Out Of	0	**Pass Mark**	0
Timing	Week 8	**Learning Outcome**	1,2,3,4
Duration in minutes	0		
Assessment Description	Practical Lab Test		
Assessment Type	Multiple Choice Questions	**% of Total Mark**	20
Marks Out Of	0	**Pass Mark**	0
Timing	Week 12	**Learning Outcome**	1,2,3,4
Duration in minutes	0		
Assessment Description	n/a		
Assessment Type	Continuous Assessment	**% of Total Mark**	50
Marks Out Of	0	**Pass Mark**	0
Timing	End-of-Semester	**Learning Outcome**	1,2,3,4
Duration in minutes	0		
Assessment Description	Group Project		

No Project

No Practical

No Final Examination

Reassessment Requirement
No repeat examination *Reassessment of this module will be offered solely on the basis of coursework and a repeat examination will not be offered.*

Module Workload

Workload: Full Time On Campus					
Workload Type	*Contact Type*	*Workload Description*	*Frequency*	*Average Weekly Learner Workload*	*Hours*
Practical	Contact		Every Week	4.00	4
Directed Reading	Non Contact		Every Week	2.00	2
Independent Study	Non Contact	No Description	Every Week	2.00	2
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	4.00

Workload: Part Time On Campus					
Workload Type	*Contact Type*	*Workload Description*	*Frequency*	*Average Weekly Learner Workload*	*Hours*
Practical	Contact	No Description	Every Week	4.00	4
Directed Reading	Non Contact	No Description	Every Week	2.00	2
Independent Study	Non Contact	No Description	Every Week	2.00	2
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	4.00

Module Resources

Supplementary Book Resources

Connolly, Thomas & Begg, Carolyn. (2015), Database Systems, 6th. Pearson, [ISBN: 1292061189].

Stephen Morris, Peter Rob, Carlos Coronel, Keeley Crocket. (2013), Database Principles: Fundamentals of Design, Implementations and Management, 2nd. Cengage Learning, Inc, [ISBN: 140806636X].

Tim Gorman. (2014), Beginning Oracle SQL, 3rd. Apress, [ISBN: 9781430265566].

This module does not have any article/paper resources

Other Resources

Website, w3schools,
http://www.w3schools.com/sql/

website, SQL Course,
http://www.sqlcourse.com/

website, sql.org,
http://www.sql.org/

website, sql zoo,
http://www.sqlzoo.net/

website, Oracle Tutorial,
http://www.oracletutorial.com/

website, Firebird,
http://firebird.sourceforge.net/

website, Berkley DB,
http://www.sleepycat.com/