Liverpool John Moores University

Title: Introduction to Databases
Status: Definitive
Code: **5509ENGSBC** (119425)
Version Start Date: 01-01-2012

Owning School/Faculty: Engineering
Teaching School/Faculty: The Sino-British College

Team	emplid	Leader
Russell English		Y

Academic Level:	FHEQ5	**Credit Value:**	12.00	**Total Delivered Hours:**	35.00
Total Learning Hours:	120	**Private Study:**	85		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	10.000
Practical	25.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	class test		40.0	
Essay	CW		60.0	

Aims

This module will provide students with the fundamentals of multi-tier applications design (client / database architecture) and the use of database management systems for various applications.

Learning Outcomes

After completing the module the student should be able to:

LO1   Understand, design and manage relational databases
LO2   Use SQL to work with data in relational database systems
LO3   Understand how to optimize data structures and data requests
LO4   Appreciate the data warehousing concept

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

class test	LO 1	LO 2		

coursework	LO 1	LO 2	LO 3	LO 4

Outline Syllabus

Relational model; database data types; SQL overview; SQL statements; joins and sub-queries; SQL functions; aggregation; indexes; constraints; triggers; data consistency; transactions; views; stored procedures; normalization; XML overview and use in databases; two and three tiers software architecture; UML data modeling; data access levels and security; data warehousing and OLAP.

Learning Activities

Delivered with a range of lectures and practical sessions.

References

Course Material	Book
Author	Jeffrey D. Ullman and Jennifer Widom
Publishing Year	2007
Title	A First Course in Database Systems
Subtitle	
Edition	3
Publisher	Prentice Hall
ISBN	978-0136006374

Course Material	Book
Author	Abraham Silberschatz, Henry Korth and S. Sudarshan
Publishing Year	2010
Title	Database System Concepts
Subtitle	
Edition	6

Publisher	McGraw Hill
ISBN	978-0073523323

Notes

This module will provide students with the fundamentals of multi-tier applications design (client / database architecture) and the use of database management systems for various applications.