Applied Data Science

Module Information

2022.01, Approved

Summary Information

Module Code	6529CSQR
Formal Module Title	Applied Data Science
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Oryx Universal College WLL

Learning Methods

Learning Method Type	Hours
Lecture	22
Practical	22

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-PAR	PAR	September	12 Weeks

Aims and Outcomes

Aims	To investigate the role and functionality of data warehouses in support of business intelligence.To gain insights into the process of extract, transform & loading in the construction of data warehouses.To study various platforms available for business intelligence reporting.To experience the development of service-oriented applications that support business intelligence dashboards.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Critically review methods for the construction of data warehouses in support of business intelligence
MLO2	2	Apply appropriate design methods in the development of complex reporting solutions for business intelligence
MLO3	3	Plan and implement a set of business intelligence dashboards to solve a business analysis problem

Module Content

Outline Syllabus	Introducing Business Intelligence & OLAP-Analytical Limitations of OLTPMulti-Dimensional Modelling-Star & Snow Flake Schemas-Cubes-Aggregations-MOLAP, ROLAP & HOLAPAnalytical Extensions of SQLExtracting, Transforming & LoadingPlatforms for Reporting-Web Based Reporting Services-Supporting XML & JSONPlatforms for Business Intelligence Dashboards -Object Relationship Mapping-Web Services -Serializing & De-Serializing Objects-Manipulating & Presenting Data
Module Overview	
Additional Information	The module works with a growing area of database systems, that of the analytical database. The module begins by exploring the rapid growth of business intelligence data and the complex data models that are needed to support it. The module continues by exploring the platforms and processes that report such data through both web based and service oriented platforms.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Technology	Data Warehousing	40	0	MLO1
Technology	Business Intelligence Dashboard	60	0	MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Glyn Hughes	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings