

Database Systems

Module Information

2022.01, Approved

Summary Information

| Module Code | 5502CSQR |
|---------------------|----------------------------------|
| Formal Module Title | Database Systems |
| Owning School | Computer Science and Mathematics |
| Career | Undergraduate |
| Credits | 20 |
| Academic level | FHEQ Level 5 |
| 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 | 33 |
| 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 implement relational database designs using modern database management systems. To utilize database connectivity technologies in developing data driven applications. To introduce database administration tasks and the key concepts of data management, quality and security. To investigate database systems in the context of business intelligence. |
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After completing the module the student should be able to:

Learning Outcomes

| Code | Number | Description |
|------|--------|--|
| MLO1 | 1 | Implement relational database designs and query them using SQL. |
| MLO2 | 2 | Develop data driven applications. |
| MLO3 | 3 | Perform database administration tasks. |
| MLO4 | 4 | Evaluate the role of database systems in supporting business intelligence. |

Module Content

| Outline Syllabus | DBMS Architecture SQL Components & DDL (for Tables) DML (for basic SELECT) DML (for JOINS & INSERT - UPDATE - DELETE) Views & Indices (DDL & DML) SPROCs & Triggers (DDL & DML) Connectivity Client Server vs Embedding DBs Connectivity APIs DBMS Administration Security Availability Optimization Business Intelligence Alternate DBMS / Big Data |
|------------------------|--|
| Module Overview | |
| Additional Information | This module explores the implementation of database systems through an examination of modern database management systems, the SQL language and database connectivity APIs. The module continues by exploring the managerial considerations of large scale database systems as well as the emergent fields of business intelligence and data analytics. |

Assessments

| Assignment Category | Assessment Name | Weight | Exam/Test Length (hours) | Module Learning Outcome Mapping |
|---------------------|-----------------|--------|--------------------------|------------------------------------|
| Essay | SQL Development | 50 | 0 | MLO1, MLO2 |
| Exam | Exam | 50 | 2 | MLO3, MLO4 |

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 |
|--------------|--------------------------|-----------|
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