# Data Modelling

## Module Information

**2022.01, Approved**

## Summary Information

| | |
|---|---|
| Module Code | 4604YCOM |
| Formal Module Title | Data Modelling |
| Owning School | Computer Science and Mathematics |
| Career | Undergraduate |
| Credits | 10 |
| Academic level | FHEQ Level 4 |
| Grading Schema | 40 |

**Teaching Responsibility**

| LJMU Schools involved in Delivery |
|---|
| LJMU Partner Taught |

**Partner Teaching Institution**

| Institution Name |
|---|
| YPC International College (Kolej Antarabangsa YPC) |

## Learning Methods

| Learning Method Type | Hours |
|---|---|
| Lecture | 17 |
| Practical | 11 |

## Module Offering(s)

| Display Name | Location | Start Month | Duration Number Duration Unit |
|---|---|---|---|
| JAN-PAR | PAR | January | 12 Weeks |

# Aims and Outcomes

| Aims | To introduce the fundamentals of data manipulation and presentation. To model and manipulate data using spreadsheet and database based applications. To evaluate the advantages and disadvantages of spreadsheet and database based development models. |
|---|---|

**After completing the module the student should be able to:**

**Learning Outcomes**

| Code | Number | Description |
|---|---|---|
| MLO1 | 1 | Construct spreadsheet based applications from a given set of requirements. |
| MLO2 | 2 | Create logical and physical entity relationship models from a given set of requirements. |
| MLO3 | 3 | Construct database based applications from logical and physical entity relationship models. |

# Module Content

| Outline Syllabus | Data Domains, Models & Abstraction Spreadsheet Modelling Design, Manipulation & Reporting Limitations Logical Data Modelling Entities Relationships, Cardinality & Optionality Physical Data Modelling Tables Attributes Relationships Functional Dependency & Normalisation 1NF - 2NF - 3NF Database Modelling Designers & Query-By-Example |
|---|---|
| Module Overview | |
| Additional Information | This module delivers to students the ability to model and manipulate data in various differing scenarios. Student will be required to construct and manipulate data in spreadsheet based applications, then to model data using various data modelling techniques leading towards the construction and manipulation of database based applications. |

# Assessments

| Assignment Category | Assessment Name | Weight | Exam/Test Length (hours) | Module Learning Outcome Mapping |
|---|---|---|---|---|
| Report | Data Modelling Scenario | 100 | 0 | MLO1, 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 |
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