APPROVED

# DBMS C8023: Databases and Web Integration

## Module Details

| | |
|---|---|
| **Module Code:** | DBMS C8023 |
| **Full Title:** | Databases and Web Integration APPROVED |
| **Valid From::** | Semester 1 - 2019/20 ( June 2019 ) |
| **Language of Instruction:** | English |
| **Duration:** | 1 Semester |
| **Credits::** | 5 |
| **Module Owner::** | Peter Gosling |
| **Departments:** | Unknown |
| **Module Description:** | The aim of this module is to give students an insight into developing data driven websites |

| Module Learning Outcome | |
|---|---|
| *On successful completion of this module the learner will be able to:* | |
| **#** | **Module Learning Outcome Description** |
| MLO1 | Design and build multi-table databases. |
| MLO2 | Develop SQL queries to carry out secure and high performance database operations. |
| MLO3 | Query and update a multi-table database by connecting to it through a website. |

| Pre-requisite learning |
|---|
| ***Module Recommendations***<br>*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 |
|---|
| **Database Development:**<br>Applied Multi-table design and implementation; entity-relationship modelling; normalization; table constraints; DDL; |
| **SQL Query Development**<br>Develop multi-table DML statements; basic database administration; views and indexing for security and performance; |
| **Client-Server Scripting:**<br>Server-Side Scripting - PHP (GET and POST ; working with MySQL; looping through arrays; testing and debugging; control statements; working with strings, dates and numbers, server-side validation); importing data from Excel. |

## Module Assessment

| Assessment Breakdown | % |
|---|---|
| Course Work | 100.00% |

| Module Special Regulation |
|---|
| |

**Assessments**

## Full Time On Campus

| Course Work | | | |
|---|---|---|---|
| **Assessment Type** | Class Test | **% of Total Mark** | 40 |
| **Marks Out Of** | 0 | **Pass Mark** | 0 |
| **Timing** | S1 Week 9 | **Learning Outcome** | 1,2 |
| **Duration in minutes** | 0 | | |
| **Assessment Description**<br>Assess students ability to design and build a database for a problem area and develop queries against the database. | | | |
| **Assessment Type** | Project | **% of Total Mark** | 60 |
| **Marks Out Of** | 0 | **Pass Mark** | 0 |
| **Timing** | S1 Week 13 | **Learning Outcome** | 1,2,3 |
| **Duration in minutes** | 0 | | |
| **Assessment Description**<br>Students will be required to build a website that integrates their knowledge of client- and server-side web development. The project will focus on how well the student integrates their knowledge of client- and server-side web development linking to a back-end multi-table database. Students will be marked on both their code and their performance in an interview. | | | |

No Project

No Practical

No Final Examination

## Part Time On Campus

| Course Work | | | |
|---|---|---|---|
| **Assessment Type** | Class Test | **% of Total Mark** | 40 |
| **Marks Out Of** | 0 | **Pass Mark** | 0 |
| **Timing** | S1 Week 9 | **Learning Outcome** | 1,2 |
| **Duration in minutes** | 0 | | |
| **Assessment Description**<br>Assess students ability to design and build a database for a problem area and develop queries against the database. | | | |
| **Assessment Type** | Project | **% of Total Mark** | 60 |
| **Marks Out Of** | 0 | **Pass Mark** | 0 |
| **Timing** | End-of-Semester | **Learning Outcome** | 1,2,3 |
| **Duration in minutes** | 0 | | |
| **Assessment Description**<br>Students will be required to build a website that integrates their knowledge of client- and server-side web development. The project will focus on how well the student integrates their knowledge of client- and server-side web development linking to a back-end multi-table database. Students will be marked on both their code and their performance in an interview. | | | |

No Project

No Practical

No Final Examination

| Reassessment Requirement |
|---|
| **No repeat examination**<br>*Reassessment of this module will be offered solely on the basis of coursework and a repeat examination will not be offered.* |
| **Reassessment Description**<br>Students will be required to build a website that integrates their knowledge of client- and server-side web development. The project will focus on how well the student integrates their knowledge of client- and server-side web development linking to a back-end multi-table database. Students will be marked on both their code and their documented report. |

## Module Workload

| Workload: Full Time On Campus | | | | | |
|---|---|---|---|---|---|
| *Workload Type* | *Contact Type* | *Workload Description* | *Frequency* | *Average Weekly Learner Workload* | *Hours* |
| Practical | Contact | Two two-hour labwork sessions | Every Week | 3.00 | 3 |
| Directed Reading | Non Contact | Student exercises and reading | Every Week | 3.00 | 3 |
| Independent Study | Non Contact | Student research on various topics in the indicative content | Every Week | 2.00 | 2 |
| | | | | Total Weekly Learner Workload | 8.00 |
| | | | | Total Weekly Contact Hours | 3.00 |

| Workload: Part Time On Campus | | | | | |
|---|---|---|---|---|---|
| *Workload Type* | *Contact Type* | *Workload Description* | *Frequency* | *Average Weekly Learner Workload* | *Hours* |
| Practical | Contact | One three-hour labwork session | Every Week | 3.00 | 3 |
| Directed Reading | Non Contact | Student exercises and reading | Every Week | 3.00 | 3 |
| Independent Study | Non Contact | Student research on various topics in the indicative content | Every Week | 2.00 | 2 |
| | | | | Total Weekly Learner Workload | 8.00 |
| | | | | Total Weekly Contact Hours | 3.00 |

## Module Resources

*Recommended Book Resources*


**Joel Murach, Ray Harris. (2017), Murach's PHP and MySQL, 3rd. Mike Murach and Associates, Inc., USA, [ISBN: 9781943872381].**

**Anne Boehm, Zak Ruvalcaba. (2018), HTML5 & CSS3, 4th. Murach, USA, [ISBN: 978-1-943872].**

**Carlos Coronel, Peter Rob, Keeley Crockett. (2013), Database Systems, Fundamentals of Design, Implementation and Management, 2nd. Cengage Learning, EMEA, Hampshire, UK, [ISBN: 9781404048634].**


*This module does not have any article/paper resources*

*Other Resources*

**Website, W3Schools. Ttutorial webpages on HTML5, CSS3, JavaScript, jQuery, AJAX, PHP and MySQL,**
**http://w3schools.com/**

**Website, The PHP Group,**
**http://www.php.net/**

**Website, MySQL Tutorial,**
**http://dev.mysql.com/doc/refman/5.0/en/t utorial.html**