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|---|---|---------------------------------------|---|--|
| <b>Faculty</b>                                    | Economic and Management Sciences  |                                       |   |  |
| <b>Home Department</b>                            | Information Systems   |                                       |   |  |
| <b>Module Topic</b>                               | Databases and Data Modelling  |                                       |   |  |
| <b>Generic Module Name</b>                        | Databases and Data Modelling 242  |                                       |   |  |
| <b>Alpha-numeric Code</b>                         | <b>IFS242</b>   |                                       |   |  |
| <b>NQF Level</b>                                  | 6   |                                       |   |  |
| <b>NQF Credit Value</b>                           | 20  |                                       |   |  |
| <b>Duration</b>                                   | Semester  |                                       |   |  |
| <b>Proposed semester to be offered</b>            | First Semester  |                                       |   |  |
| <b>Programmes in which module will be offered</b> | BCom IS (1033)  |                                       |   |  |
| <b>Year Level</b>                                 | 2 (3 Extended Curriculum)   |                                       |   |  |
| <b>Main Outcomes</b>                              | <p>On completion of this module students should be able to:</p> <ul style="list-style-type: none"> <li>• Understand the principles of relational and object-oriented databases.</li> <li>• Understand the role of databases in modern information systems.</li> <li>• Design relational databases of moderate complexity.</li> <li>• Abstract table structure from data requirement statements.</li> <li>• Understand the principles of primary- and foreign-key data relationships.</li> <li>• Utilise the SQL language to query databases.</li> <li>• Utilise a modern relational database management system using the data manipulation language and the data definition language.</li> <li>• Model data relationships.</li> </ul> |                                       |   |  |
| <b>Main Content</b>                               | <ul style="list-style-type: none"> <li>• The theory and application of relational and object-oriented databases</li> <li>• Data-oriented modelling theory and application</li> <li>• Unified Modelling Language</li> <li>• Object-oriented design principles</li> <li>• The object-oriented development life cycle</li> </ul>   |                                       |   |  |
| <b>Pre-requisite modules</b>                      | IFS131 or IFS132 and IFS140, QSC132 and ALC132  |                                       |   |  |
| <b>Co-requisite modules</b>                       | None  |                                       |   |  |
| <b>Prohibited module Combinations</b>             | None  |                                       |   |  |
| <b>Breakdown of Learning Time</b>                 | <b>Hours</b>  | <b>Timetable Requirement per week</b> |   | <b>Other teaching modes that does not require time-table</b> |
| Contact with lecturer/ tutor:                     | 45  | <i>Lectures p.w.</i>                  | 3 |  |
| Assignments & tasks:                              | 70  | <i>Practicals p.w.</i>                | 0 |  |
| Practicals:                                       | 0   | <i>Tutorials p.w.</i>                 | 1 |  |
| Assessment:                                       | 15  |                                       |   |  |
| Self-study:                                       | 70  |                                       |   |  |
| Other: Please specify                             | 0   |                                       |   |  |
| <b>Total Learning Time</b>                        | <b>200</b>  |                                       |   |  |
| <b>Methods of Student Assessment</b>              | Continuous Assessment (CA): 100%<br>Final Assessment (FA): 0%   |                                       |   |  |
| <b>Assessment Module type</b>                     | Continuous Assessment (CA)  |                                       |   |  |