**MOUNTAINS OF THE MOON UNIVERSITY**



**SCHOOL OF INFORMATICS AND COMPUTING**

BIT 1201 Information Management

**Course outline**

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| Course unit | Information Management |
| CU number | BIT 1201 |
| Credits | 3CU |
| **Facilitator:**   * **Title** * **E-mail address** | Mutabarura Duncan  [dunmta@mmu.ac.ug](mailto:dunmta@mmu.ac.ug)  0774393863 |
| **Course Description** | * Information is derived from data. This means that data must be efficiently collected, organized, retrieved and managed to make it meaningful to the organization. * Thus, IT professionals have to develop, deploy, manage and integrate data and Information Systems to support the organization. * As such, the knowledge area of Information Management will include the collection, organization, modeling, transformation, presentation, safety and security of the data and information. |
| **Course Objective**  (the goal) | This course is aimedatgivingstudentstheskillsneededto efficiently collect, organize, model, transform, present, and secure data and information. Students will learn how to integrate information with Information Systemstomakeit meaningfultotheOrganization   1. **Learning Outcomes :** At the end of the course, students should be able to: 2. Differentiate and use **key terms** like: **Information, data, database, database Management System, and metadata.** 3. Explain the **role** of **data**, **information**, and **databases** in organizations. 4. **Explain how** data storage and retrieval has changed over time. 5. Explain the **advantages** of a **database** approach compared to **traditional file** processing. 6. Define data **quality, accuracy and timeliness**, and explain how their **absence** will impact organizations; 7. Explain basic issues of data retention, including the need for **retention, physical storage, and security**); 8. Explain **data backup**, **why** it is important and **how** organizations **use** backup and recovery systems. |
| **Instruction Method** | Lectures, and interactive discussions and Presentations |
| **Assessment** | * 1. The assessment will be in form of coursework (40%) and final written examination (60%). |
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**Teaching Hours for Topics**

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| **NO** | **TOPIC** | **HRS** |
| **1** | Concepts and fundamentals of Information management **me of Topic** | **6** |
| **2** | Information management Stratagy | **6** |
| **3** | Managing the Database Environment | **6** |
| **4** | Data Organization Architecture. | **9** |
| **5** | Database Query Languages. | **12** |
| **6** | Data Modeling | **6** |
| **TOTAL** |  | **45** |

**Course Outline**

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| **Session** | | |
| **Date** | **19th & 26th August 2022,** |
| **Time** | **2:00-5:00pm** |
| **Topic** | **Concepts and Fundamentals of Information Management**   * Concepts of IM * Properties of Data * Discuss the principles of information management * Challenges * Information Systems * Data Collection * Analysis of Data * Backups and recovery |
| **Session** | | |
| **Date** | **2nd & 9th Sept 2022** |
| **Time** | **2:00-5:00pm** |
|  | **Information Management Strategy**   * Elements of strategy * benefits from having a defined IM * Developing IM strategy * Main themes in IM strategy * information audit * Information policy * Risk management |
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| **Date** | **16th September 2022 & 7th October 2022** |
| **Time** | **2:00-5:00pm** |
| **Topic** | **Managing The Database Environment**   * Database systems * Some common uses of database systems. * Characteristics of file-based systems. * Problems with file-based approach. * Database Management System (DBMS). * Typical functions of a DBMS. * Major components of the DBMS environment. * Personnel involved in the DBMS environment. * Advantages and disadvantages of DBMSs. * Client server databases and their architectures |
| **Date** | *23rd sept 2022* (Group Presentations)  *30th September 2022 TEST* |
| **Session** | | |
| **Date** |  |
| **Time** | **14th October 2022** |
| **Topic** | **Data Organization Architecture.**   * Relational Models * Relational Databases * Properties of a relation |
| **Session** |  |
| **Date** | **21st , 28th October 2022,** |
| **Time** | **2:00-5:00pm** |
| **Topic** | **Data Organization Architecture.**   * Normalization * Schemas * Data Integrity * XMl Language |
| **TOPIC** | | |
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| **Date** | **4th &11th November** |
| **Time** | **2:00-5:00pm** |
| **Topic** | **Database Query Languages**.   * SQLDataManipulation * SQLData Definition * Database Querying and Reports |
| **Session** |  |
| **Date** | **18th 25th November** |
| **Time** | **2:00-5:00pm** |
| **Topic** | **Data Modeling**   * Data Models * Data ware House& Data Marts * Characteristics of DWH Data * Basic Elements of the DWH * Why Create a Data Warehouse? * Complexities of creating a Data Warehouse * Modeling usingUML |
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**Coursework’s**

* *2nd September 2022 Assignment 1 (Individual) Marked out of 20*
* *23rd sept 2022 Assignment 2(group presentation ) Marked out of 20*

*30th September 2022 Test1 Marked out of 20*

* *21st- 31st October 2022 central Test Marked out of 20*

**General References**

**Suggested Reading Books**

**Suggested Reading Books :**

1. Fundamentals of Database Systems  (6th  Edition) by Ramez  lmasri  and Shamkant Na- vathe
2. A Practical Approach to Design,Management and Implementation.Second Edition, ISBN 0321173503.
3. ]Connolly T., Begg C. (2002). Database Systems: A Practical Approach to Design, Implementation and Management. USA: Pearson Education Limited.
4. Turban E., McLean, E. and Wetherbe, J (1998) Information Technology for management : making connections for strategic advantage. John Wiley & Sons, Inc.