**CENTRAL UNIVERSITY**

**FACULTY OF ENGINEERING**

**DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY**

**SECOND SEMESTER 2021/2022 ACADEMIC YEAR**

**COURSE OUTLINE**

**Course: ITEC108: Microsoft Access Credits: 3**

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**Course Description:**

This course accurately and casually provides an introductory and intermediate training to students with an understanding of the needed information to pass the end of semester examination and Microsoft Office Specialist Certification Series. Students learn the commands in practical with real world applications. Microsoft Access is a Database Management System offered by Microsoft. It uses the Microsoft Jet Database Engine and comes as a part of the Microsoft Office suite of application. Microsoft Access offers the functionality of a database and the programming capabilities to create easy to navigate screens (forms). It helps you analyze large amounts of information, and manage data efficiently.

**Course Prerequisites:** Students who enrol in the Microsoft Access 2013 course should have basic done MS ExcelNew course in the first semester, computer skills, including how to turn on the computer, how to use an Internet browser, and how to select commands from a menu or toolbar. Students should know how to save files and send attachments by email as well.

**Course Objectives:**

By the end of the course, students will be able to:

1. Recognize the importance of using Microsoft Access 2013.
2. Understand how to Microsoft Access application together with other Microsoft products
3. Know how to use Microsoft Access to develop and management database.
4. Create simple database management applications that are interactive.

**Teaching Approaches:**

There would be formal and online lectures, practical lab work, assignments, reflections and discussions

**Minor Modifications:**

When minor modifications are made to this syllabus, those will be reflected in the online management system.

**Online Learning Materials and Activities:**

You can access all learning materials in the online management system, if you are a registered student. It is very important to participate in learning activities given in the online management system to learn this course

**Assessment:**

There would be two quizzes, two an unannounced quiz and a number of class exercises and assignments. These would constitute 40% of the total scores for the final grade. In addition, there is a final end of semester examination which would constitute 60% of the total scores for the final grade.

**Online Assignments:**

Online assignments, quizzes and other related form of assessment could be conducted on the online management system as well apart from face to face.

**Content:**

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| **CHAPTER 1** | **Create and Manage a Database – *WEEK 1 -WEEK 2*** | |
|  | **1.1 Create a New Database (Introduction)** | |
|  | 1.1.1 | Create New Databases |
|  | 1.1.2 | Create Databases Use Templates |
|  | 1.1.3 | Create Databases In Older Formats |
|  | 1.1.4 | Create Databases Use Wizards |
|  | **1.2 Manage Relationships and Keys** | |
|  | 1.2.1 | Edit References Between Tables |
|  | 1.2.2 | Create and Modify Relationships |
|  | 1.2.3 | Set Primary Key Fields |
|  | 1.2.4 | Enforce Referential Integrity |
|  | 1.2.5 | Set Foreign Keys |
|  | 1.2.6 | View Relationships |
| **CHAPTER 2** | **2.1 Navigate Through a Database- *WEEK 3 – WEEK 4*** | |
|  |  | Navigate To Specific Records |
|  |  | Set a Form As The Startup Option |
|  |  | Use Navigation Forms |
|  |  | Set Navigation Options |
|  |  | Change Views |
|  | **2.2 Protect and Maintain a Database** | |
|  |  | Compact Databases |
|  |  | Repair Databases |
|  |  | Backup Databases |
|  |  | Split Databases |
|  |  | Encrypt Databases With a Password |
|  |  | Merge Databases |
|  |  | Recover Data From a Backups |
|  | **2.3 Print and Export a Database** | |
|  |  | Print Reports |
|  |  | Print Records |
|  |  | Maintain Backward Compatibility |
|  |  | Save Databases As Templates |
|  |  | Save Databases To External Locations |
|  |  | Export To Alternate Formats |

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| **CHAPTER 3** | **Build Tables** | ***WEEK 4 – WEEK 5- WEEK 6*** |
|  | **3.1 Create a Table** | |
|  |  | Create New Tables |
|  |  | Import External Data Into Tables |
|  |  | Create Linked Tables From External Sources |
|  |  | Import Tables From Others Database |
|  |  | Create Tables From Templates and Application Parts |
|  | **3.2 Format a Table** | |
|  |  | Hide Fields In Tables |
|  |  | Change Data Formats |
|  |  | Add Total Rows |
|  |  | Add Table Descriptions |
|  |  | Rename Tables |

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|  | **2.3 Manage Records** | | |
|  |  | Update Records | |
|  |  | Add New Records | |
|  |  | Delete Records | |
|  |  | Append Records From External Data | |
|  |  | Find and Replace Data | |
|  |  | Sort Records | |
|  |  | Filter Records | |
|  |  | Group Records | |
|  | **3.4 Create and Modify Fields** | | |
|  |  | Add Fields To Tables | |
|  |  | Add a Validation Rules To Fields | |
|  |  | Change Field Captions | |
|  |  | Change Field Sizes | |
|  |  | Change Field Data Types | |
|  |  | Configure Fields To Auto-Increment | |
|  |  | Set Default Values | |
|  |  | Use Input Masks | |
|  |  | Delete Fields | |
| **CHAPTER 4** | **Create Queries** | | ***WEEK 7*** |
|  | **4.1 Create a Query** | | |
|  |  | | Run Queries |
|  |  | | Create Crosstab Queries |
|  |  | | Create Parameter Queries |
|  |  | | Create Action Queries |
|  |  | | Create Multi-Table Queries |
|  |  | | Save Queries |
|  |  | | Delete Queries |
|  | **4.2 Modify a Query** | | |
|  |  | | Rename Queries |
|  |  | | Add New Fields |
|  |  | | Remove Fields |
|  |  | | Hide Fields |
|  |  | | Sort Data Within Queries |
|  |  | | Format Fields Within Queries |
|  | **4.3 Utilize Calculated Fields and Grouping Within a Query** | | |
|  |  | | Add Calculated Fields |
|  |  | | Add Conditional Logic |
|  |  | | Group and Summarize Data |
|  |  | | Use Comparison Operators |
|  |  | | Use Basic Operators |
| **CHAPTER 5** | **Create Forms** | | ***WEEK 8 – WEEK 9*** |
|  | **5.1 Create a Form** | | |
|  |  | | Create New Forms |
|  |  | | Create Forms With Application Parts |
|  |  | | Save Forms |
|  |  | | Delete Forms |

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|  | **5.2 Set Form Controls** | |
|  |  | Move Form Controls |
|  |  | Add Form Controls |
|  |  | Modify Data Sources |
|  |  | Remove Form Controls |
|  |  | Set Form Control Properties |
|  |  | Manage Labels |
|  | **5.3 Format a Form** | |
|  |  | Modify Tab Order In Forms |
|  |  | Format Print Layouts |
|  |  | Sort Records |
|  |  | Apply Themes |
|  |  | Change Margins |
|  |  | Insert Backgrounds |
|  |  | Auto-Order Forms |
|  |  | Insert Headers and Footers |
|  |  | Insert Images |
|  |  | Modify Existing Forms |

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| **CHAPTER 6** | **Create Reports** | ***WEEK 10*** |
|  | **6.1 Create a Report** | |
|  |  | Create New Reports |
|  |  | Create Reports With Application Parts |
|  |  | Delete Reports |
|  | **6.2 Set Report Controls** | |
|  |  | Group Data By Fields |
|  |  | Sort Data |
|  |  | Add Sub-Forms |
|  |  | Modify Data Sources |
|  |  | Add Report Controls |
|  |  | Manage Labels |
|  | **6.3 Format a Report** | |
|  |  | Format Reports Into Multiple Columns |
|  |  | Add Calculated Fields |
|  |  | Set Margins |
|  |  | Add Backgrounds |
|  |  | Change Report Orientation |
|  |  | Change Sort Order |
|  |  | Insert Headers and Footers |
|  |  | Insert Images |
|  |  | Insert Page Numbers |
|  |  | Apply Themes |
|  |  | Modify Existing Reports |

**REFERENCES**

1. Exploring Microsoft Access 2013 Comprehensive by Cynthia Krebs, Eric

Cameron, and Jerri Williams. ©2014, published by Pearson Prentice Hall.

ISBN 10-13-341220-2.

2. [www.youtube.com](http://www.youtube.com) (Search for Microsoft Access training videos)

3. Microsoft Access 2013 , Step by Step by Joyce Cox and Juan Lambert