

**FEDERAL TVET INSTITUTE (FTVETI)**

**Addis Ababa**

**Department of Information and Communication Technology management**

**Program:** M. Sc. in Information and Communication Technology Management**.**

**Course Name and Code: Advance Database Administration *(ICT 544)***

**Course Credits:** 3

**Year and Semester:** I Year II Semester 2018/19 A.Y

**Instructor Name:** Dr. VASU PINNTI **E-Mail:** vasupinnti@yahoo.com

**COURSE DESCRIPTION**:

This course an advanced database infrastructure design, optimization, maintenance, troubleshooting and security. To get the most out of this course, trainees should have a basic knowledge and experience working with some DBMS and have a strong grasp of database administration fundamentals.

**COURSE OBJECTIVES:**

The course aims to provide trainees with the necessary knowledge and skills that will help them in establishing an Advance Database Administration.

**After completing this course student should be able to**:

* Identify the roles and functions of Database Administrator.
* Manipulate database using SQL Server
* Attain the advance skills and knowledge needed to maintain database using SQL Server.
* Understand all the programmability objects in SQL Server and how the use it?

**SCHEDULE AND COURSE CONTENT:**

The following is an outline of the order in which syllabus contents will be covered.

|  |  |  |
| --- | --- | --- |
|  | **Chapters and Topics** |  |
|  **Chapter -1** | **The Database Administrator*** Roles and functions of Database Administrator
* Skills, interests and qualities of Database Administrator
 |  |
|  **Chapter – 2** | **Manipulate database using SQL Server*** Installing SQL Server
* About SQL Server Management Studio (SSMS)
* Connecting to SQL Server
* Creating, Altering and Dropping a Database
* Creating and Working with tables
* SQL Commands and PL/SQL
* Views and Procedures
 |  |
|  **Chapter - 3** | **Maintaining Database using SQL Server*** SQL Server Security (User Authentication)
* Backing-up Database
* Restoring Database
* Recovering Database
 |  |
|  **Chapter – 4** | **Creating simple application using SQL Server as Backend database*** Connecting VB.Net/C#.Net to SQL Server
* Displaying Records
* Add, Edit, Delete Records
* Creating Reports
 |  |

**REQUIRED TEXTS:**

**Text books:**

* Professional SQL Server Administration by Peter A. Carter, 2014

**Reference:**

* Microsoft SQL Server 2008 R2 Administration
* <https://www.pluralsight.com/courses/sql-server-2008-advanced-dba-pt1>

**ASSESSMENT AND EVALUATION:**

Evaluation will be carried out based on continuous assessment which comprises relevant mid-exam, lab exam, mini project and final examination.

|  |  |  |
| --- | --- | --- |
| **Parameter**  | **Weight**  | **Remark**  |
| Mid exam | **20** | CHAPTER 1,2 |
| lab exam  | **20** |
| Mini project | **20** | CHAPTER 3,4 |
| Final exam | **40** |
| Total  | **100 %** |  |

**Attendance:** You are obliged to attend at least 80% of the lecture classes and 100% attendance during practical work sessions to sit for final exam

**Instructor signature Department Head**