Title and Course Number: Database Application Development, CET 4427

Course Description: Design and implementation of database applications within the concept of central administration. Oracle will be used as a vehicle. Programming project is required. Only open to students in the BIET program. Credit will not be given for both CET 4427 and COP 3540.

Prerequisites and Co-Requisites: COT 3002 or equivalent.


Goals/Objectives: This course will provide students with an in-depth understanding of theory, operation and application of modern database systems.

Course Topics:
1. Introduction to Database Systems
2. The Relational Model and SQL
3. SQL DDL: Creating tables, views, constraints
4. SQL DML: Inserting into, deleting from, selecting fromm, and updating the database
5. Embedded SQL and Call Level Interfaces
6. Database Programming Languages: PL/SQL
7. Security Considerations
8. Transaction Management
9. Using Databases to Generate Dynamic Web Content
10. Internet Databases
11. Introduction to Database Design: ER diagrams, normalization, and UML