University of Education, Winneba

Department of Introduction to Information and Communications Technology

Hybrid Course Manual

Course Title: Introduction to Database Management Systems
Course Code: ICT 364
Department: Information and Communication Technology
University: University of Education, Winneba
Lecturer: Prof. Issifu Yidana (PhD)
Level: 300
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Group: 3

Course Overview

This hybrid course introduces students to database systems and develops skills in designing, creating, managing, and querying relational databases. It combines **face-to-face lectures and labs** with **online learning activities**, ensuring flexibility and individual support despite the large class size. Students will use tools like Microsoft Access or MySQL both in the classroom and through guided online modules.

Course Objectives

Upon completing this course, students will:

- Understand foundational database concepts and terminologies.
- Design and implement normalized relational databases.
- Administer databases using industry-standard tools.
- Execute SQL queries for data retrieval and manipulation.
- Use forms and reports for effective data input/output.
- Manage data integrity, security, and backup procedures.

Student Learning Outcomes

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

- Define and explain database components: tables, queries, forms, reports.

- Normalize tables to reduce redundancy.
- Build and manage databases using MS Access or MySQL.
- Perform CRUD operations using SQL.
- Develop data entry forms and generate professional reports.
- Ensure proper data management practices and backup strategies.

Delivery Mode (Hybrid Structure)

The course will be delivered using a **blended learning approach**:

- **Face-to-Face (40%)**
    - Weekly lectures to explain key concepts.
    - Hands-on lab sessions to practice database design.
    - In-person mid-semester review and final exam.
- **Online (60%)**
    - Pre-recorded video tutorials on SQL and DBMS tools.
    - Quizzes, assignments, and discussions via LMS (e.g., Moodle/Google Classroom).
    - Online collaboration through forums and group projects.
    - Virtual consultations for individual support.

Assessment Overview

Assessment Type	Weight	Delivery Mode
Assignments	20%	Online submission via LMS
Practical Projects	30%	Hybrid (develop online, present in class)
Quizzes	10%	Online
Mid-Semester Exam	20%	Face-to-Face

Assessment Type	Weight	Delivery Mode
Final Exam	20%	Face-to-Face

Weekly Course Structure

Week	Delivery Mode	Activities
1	F2F	Introduction to Databases & Course Orientation
2	Online	Video: DB Terminology + Forum Discussion
3	F2F	Lab: Designing Relational Databases
4	Online	Quiz + Activity on Table Relationships
5	Online	Tutorial: Introduction to SQL (CREATE, INSERT, SELECT)
6	F2F	Mid-Semester Review & Practical Feedback
7	Online	Video: Advanced SQL Queries + Practice Quiz
8	F2F	Lab: Forms and Data Entry Interfaces
9	Online	Online Project Work (Reports & Visualization)
10	Online	Backup & Security Case Study
11	F2F	Group Project Presentations
12	Online	Final Project Submission via LMS
13	F2F	Final Exam & Course Wrap-up

Required Materials

- A computer with MS Access or MySQL installed.
- Stable internet connection.
- Access to cloud storage (Google Drive / OneDrive).
- Online LMS account (Moodle/Google Classroom).

- A SQL reference/cheat sheet.

Student Support

- **Discussion Forums:** Peer-to-peer support and Q&A.
- **Email/Chat Support:** Quick clarifications from the lecturer.
- **Virtual Office Hours (Zoom/Teams):** Weekly online help sessions.
- **Feedback System:** Regular feedback on assignments and quizzes.
