



Department of Electrical and Computer Engineering (ECE)

School of Engineering and Physical Sciences

North South University, Bashundhara, Dhaka-1229, Bangladesh

CSE311L: DATABASE MANAGEMENT SYSTEM (LAB)

Prerequisites CSE 225, Data Structures and Algorithms

Section 02

Faculty Member Ishan Arefin Hossain

Lab Instructor Mir Fatema Afroz Faria

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Class Hours	Thursday	08.00 AM – 10.10 AM
Class Room	LIB 604	

Course Description

This course introduces students with database management systems for the first time in their undergraduate study. Drawbacks of flat file system are demonstrated and advantages of relational database systems are introduced. The course examines the logical organization of databases: the entity-relationship model; the hierarchical, network, and relational data models and their languages. Design, implementation, and optimization of query languages; security and integrity; concurrency control, different level of indices, e.g., tree and hash-based indices are introduced. Access costs are compared for different alternatives. This course has separate mandatory laboratory sessions every week in a separate course CSE 311L which has 0 credits, but the students (in group) use hands on SQL queries and as a culmination, they build a full-fledged database system including a front end.

Course Objectives

- To make students comprehend the advantages of using database system over flat files. to get students familiar with requirement analysis specially data requirements of an organization
- To introduce the conceptual design from requirement analysis using E-R diagrams and also mapping ER diagrams into relational schema.

- To introduce the basics and usage of relational algebra that are the foundation of SQL.
- To transform a relational design into physical database design using popular commercialized database, e.g., Oracle, MySQL etc.
- To design full-fledged physical database systems with least redundancy and most optimized manner.
- To build their independent projects emphasizing the data requirement.

Mark Distribution

CRITERIA	MARKS (%)
ATTENDANCE	5%
LAB ASSESSMENT	20%
CLASS TESTS	20%
PROJECT	25%
PROJECT REPORT	5%
FINAL LAB EXAMINATION	25%
TOTAL	100%

** The marks distribution may change according to the discretion of the instructor*

Lab Assessment & Lab Performance

In each Lab class, the students will be given some problems as Lab Activity on the current topic or on the previous class topics. There would be no make ups for lab assessments. Lab performance marks will be given based on participation during the class.

Assignment & Final Exam

There will be one or two assignments and one final exam. The final exam will be comprehensive. There will be no make-up for the final exam.

Late Submission Policy

One-day and two-days late submission will result in 20% and 40% penalty in marks for assignments. More than two days late submissions will not be accepted.

Academic Misconduct

Cheating and Plagiarism will not be tolerated at any stage. These are a serious violation of academic ethical standards and are unfair to other students. It is expected that all work submitted

by a student will be original work that has been done by the individual (or group where applicable).