COURSE OUTLINE

Course Code: CSE 216

Course Title: Database Sessional

Level/Term: 2/2   **Section: A+B**

Academic Session: July 2021

Course Outline:

Oracle SQL: Selection, Aggregation, Join, Sub-query; Oracle DML and DDL Statements; Oracle PL/SQL: Functions, Triggers, and Procedures; Design of a Database; Designing and Implementing multi-platform Database.

Learning Outcomes/Objectives:

After undergoing this course, students should be able to:

   i. Learn basic SQL statements in Oracle like selection, projection, filtering, and aggregation, and data manipulation statements like insert, update, and delete statements.

   ii. Learn complex SQL statements like join and sub-query

   iii. Learn Oracle PL/SQL Statements to write functions, procedures, and triggers.

   iv. Design, analyze, and implement a database for a real-world system.

Assessment (Tentative)

   1. Participation in lab classes and practice class performance - 10%

   2. Online Assessments - 30%

   3. Term Project - 40%

   4. Final Quiz - 20%

Text and Reference books:

   a. *Oracle-SQL-PL-SQL - A Brief Introduction*, by Sukarna Barua [Reference]

   b. *SQL, PL/SQL the Programming Language of Oracle by Ivan Bayross* [Reference]

Weekly Schedule:

Week No.	Topic Name
1	Outline with grading policy, Reference books, Oracle installation, Introducing HR schema
2	Project group formation ERD Design Practice
3	*ERD Online* Basic SQL Lecture + Practice
4	*Basic SQL Online* Project Finalization Advanced SQL Lecture + Practice
5	*ERD Submission of Project* Advanced SQL Lecture + Practice
6	Project Design Review + Presentation (Designing database table for the assigned project and others) Class on database connection establishment (Java, PHP can be demonstrated)
7	*Online on Advanced SQL* Discussion on database connection establishment with different languages
8	*Project Milestone 1 Evaluation* Minimal Requirement: Corrected Database Design, UI Design, Connecting with Database
9	PL/SQL Lecture + Practice
10	*PL/SQL Online*
11	*Project Milestone 2 Evaluation*
12	*Quiz*
13	*Term Project Final Submission and Report Submission*