**COURSE OUTLINE**

**Course Code: CSE 216**

**Course Title: Database Sessional**

**Level/Term: 2/1 Section: A+B**

**Academic Session: 2016-2017**

**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**

1. Participation in lab classes and practice class performance - 10-15 %

2. Online Assessments - 35-45%

3. Project - 30-40%

4. Final Quiz - 15-25%

**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:**

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| **Week No.** | **Topic Name** |  |
| 1 | Outline with Grading Policy and Reference books,  Lecture on Basic SQL |  |
| 2 | Project Group formation and Project scenario writing discussion, Practice on basic/intermediate SQL |  |
| **Scenario submission (in moodle)** |  |
| 3 | **Basic SQL Online**  **+**  **Project Scenario Discussion with Supervisor** |  |
| 4 | **Practice on ERD** |  |
| 5 | **Full Design Online**  **+**  **Project scenario Finalization with supervisor** |  |
| 6 | **E-R Diagram of the project submission and presentation** |  |
| 7 | Advanced SQL Practice |  |
| Connection Lecture  **Project discussion with supervisor (update with E-R Diagram, tables and Basic SQL)** |
| 8 | **Advanced SQL Online** |  |
| 9 | PL/SQL Practice |  |
| **Project discussion with supervisor (update with Advanced SQL)** |
| 10 | **PL/SQL Online** |  |
| 11 | **Quiz** |  |
| **Project discussion with supervisor (update with PL/SQL)** |
| 12 | **Project Final submission** |  |
| 13 | Reserve |  |
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