Course Outline

Basic Information

Faculty	Satyaki Das, (Room PC-315)						
Office Hour	**Sunday:** 9:15 am – 10:00am (Permanent Campus: Room: PC-315) **Tuesday:** 9:15 am – 10:00am (Permanent Campus: Room: PC-315) **Monday:** 11:30 am – 12:40pm & 2:30 pm – 4:30 pm (Permanent Campus: Room: PC-315) **Wednesday:** 11:30 am – 12:40pm & 2:30 pm – 4:30 pm (Permanent Campus: Room: PC-315) **Thursday:** 9:30 am – 12:30 pm (Permanent Campus: Room: PC-315) Note: Also available by Email Appointment at other times satyaki.das@ulab.edu.bd						
Contact Details	**Room:** PC315 satyaki.das@ulab.edu.bd						
Course Pre-requisites	CSE 103, CSE 201						
Department offering the course	Computer Science and Engineering						
Course Title	Database Lab						
Course Code	CSE 304	Sec	2	Credit	1	Term	Fall 2020
Number of Lectures	0	Number of Tutorials	0	Number of Practical	24	Total	24

Course Details

1. Course Description

This course will familiar the students with the concepts of Database Management Systems and they will learn how to use this concept in application level. At the end of the class, we expect the students to be able to design database structure and implement the structure in computer program.

2. Course Objectives (COs)

1. To explain secure basic and complex SQL queries.
2. To emphasis on implementing relational database and learn to manage DBMS product.

3. Intended learning outcomes of the course (ILOs)

1. Learn secured basic and complex data manipulative SQL statements.
2. Design, analyze, and implement a database for a real-world system.

4. Mapping of Course LO and PLO:

Learning Outcome (LO) of the Course	Program Learning Outcome (PLO)											
	1	2	3	4	5	6	7	8	9	10	11	12
ILO1	MJ				MN							
ILO2	MJ	MJ			MJ				MJ	MJ		

5. Contents

ILO	Topic	Teaching Strategy	Assessment Strategy	Number of Sessions
1	Introduction to relational databases. Environment to work with relational databases	Lecture	Q/A	3
1	Basic Data types in MySQL and Table creation	Lecture Exercise	Q/A, Test Quiz, Project	4
1	Basic database query	Lecture Exercise	Q/A, Test Quiz, Project	5
2	Project Idea submission	Exercise	Q/A, Project Presentation	1
1	Complex database query	Lecture Exercise	Q/A, Test Quiz, Project	4
1	Evaluation of ERD of the project	Exercise	Q/A, Test, Project	2
1, 2	Prepared statement and protection against SQL injection	Lecture Exercise	Q/A, Test, Project	3
2	Project submission and presentation		Presentation	2
	Total			24

5. Teaching & Learning Method

Students are expected coming to the class prepared for the course material covered in the previous class.
Assignments and presentations must be submitted on time.
It is highly encouraged to actively participate in the classroom.
Project must be submitted on time

6. A. Assessment Schedule

Assessment 1	Continuous Assessment in lab	Session	Weekly
Assessment 2	Quiz	Session	Week-3
Assessment 5	Assignment	Session	Week-9
Assessment 6	Final Project submission and Presentation	Session	Week-12

7. Weights of Assessments

Assessments	%
Final Examination	25
Attendance	15
Continuous Assessment	40
Project	20
Total	**100**

8. Grading Policy

Policy	Letter Grade	Grade Point	Assessments
95% and above	A+	4.00	Outstanding
85% to below 94%	A	4.00	Superlative
80% to below 84%	A-	3.80	Excellent
75% to below 79%	B+	3.30	Very Good
70% to below 74%	B	3.00	Good
65% to below 69%	B-	2.80	Average
60% to below 64%	C+	2.50	Below Average
55% to below 59%	C	2.20	Passing
50% to below 54%	D	1.50	Probationary
below 50%	F	0.00	Fail
--	I	0.00	Incomplete
--	W	0.00	Withdrawn
--	AW	0.00	Administrative Withdrawal

9. List of References

Course Materials	During class, Course Materials will be provided.
Reference Books	**1.** Database System Concepts (6th Edition) by Abraham Silberschatz, Henry F. Korth and S. Sudarshan 2. Oracle-SQL-PL-SQL - A Brief Introduction, by Sukarna Barua
Online Resources	SQL Tutorial, w3schools.com https://www.w3schools.com/sql/

10. Facilities Required for Teaching and Learning

Classroom with whiteboard, multimedia projector and marker. In classroom Internet connection is required for all computers. It is required for the students to use XAMPP.

11. Course Policies and Procedures

- Failing to attend more than 5 classes will result in an automatic fail
- It is expected that students keep their cell phones into silent mode
- Mid-term and final examinations will be held according ULAB schedules
- Cheating and plagiarism are strictly prohibited
- There will be No makeup exam/quiz
- ULAB regulations will be followed in conducting exams and evaluating answer scripts and grading

Appendix-1: Program Learning Outcome (PLO)

No.	**PLO**
1.	**Engineering Knowledge**
2.	**Problem Analysis**

3.	**Design/Development of Solutions**
4.	**Investigation**
5.	**Modern Tool Usage**
6.	**The Engineer and Society**
7.	**Environment and Sustainability**
8.	**Ethics**
9.	**Communication**
10.	**Individual and Team Work**
11.	**Life Long Learning**
12.	**Project Management and Finance**

Generic Skills (Detailed):

1. **Engineering Knowledge (T)** -Apply knowledge of mathematics, sciences, engineering fundamentals and manufacturing engineering to the solution of complex engineering problems;
2. **Problem Analysis (T)** – Identify, formulate, research relevant literature and analyze complex engineering problems, and reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences;
3. **Design/Development of Solutions (A)** –Design solutions, exhibiting innovativeness, for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, economical, ethical, environmental and sustainability issues.
4. **Investigation (D)** Conduct investigation into complex problems, displaying creativeness, using research-based knowledge, and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions;
5. **Modern Tool Usage (A & D)** -Create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to complex engineering activities, with an understanding of the limitations;
6. **The Engineer and Society (ESSE)** -Apply reasoning based on contextual knowledge to assess societal, health, safety, legal, cultural, contemporary issues, and the consequent responsibilities relevant to professional engineering practices.
7. **Environment and Sustainability (ESSE)** -Understand the impact of professional engineering solutions in societal, global, and environmental contexts and demonstrate knowledge of and need for sustainable development;
8. **Ethics (ESSE)** –Apply professional ethics with Islamic values and commit to responsibilities and norms of professional engineering code of practices.
9. **Communication (S)** -Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions;
10. **Individual and Team Work (S)** -Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.
11. **Life Long Learning (S)** -Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
12. **Project Management and Finance (S)** -Demonstrate knowledge and understanding of engineering management and financial principles and apply these to one's own work, as a member and/or leader in a team, to manage projects in multidisciplinary settings, and identify opportunities of entrepreneurship

Course Coordinator/ Teacher

Date: 27/10/2020

Head of the Department