Department of Computer Science and Engineering
National Institute of Technology Tiruchirappalli

1. Course Outline

Course Title	Advanced Database Management Systems Lab
Course Code	CS 610

Programme & Department	M.Tech. - CSE	**No. of Credits**	2
Pre-requisites Course Code	CS606	**Faculty Name**	Dr. E. Sivasankar Dr. M. Brindha
E-mail	sivasankar@nitt.edu brindham@nitt.edu	**Telephone No.**	0431 - 2503213
Course Type	Lab course		
Session in Academic Year:	January – April Session (Even Semester) 2018		

2. Course Overview

This course mainly explores the internals of a Database Management Systems and its interface with front end tools for building real world applications.

3. Course Objectives

☐ To explore the features of a Database Management Systems

☐ To interface a database with front end tools.

☐ To understand the internals of a database system

4. Course Outcomes (CO)

☐ Gaining knowledge about the internals of a database system.

☐ Ability to use databases for building web applications.

☐ Ability to implement databases for real world problems

5. Course Outcomes (CO)	Aligned Programme Outcome (PO)							
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8
Gaining knowledge about the internals of a database system.	S	M	M	M	S	S	B	M
Ability to use databases for building web applications.	S	S	M	M	S	S	M	M
Ability to implement databases for real world problems	S	S	M	M	S	S	M	M

S = 0.6   M = 0.4   B = 0.0

6. Course Teaching and Learning Activities

Sl. No	Title	Type		Mode of delivery				
		L	T	C & T	PPT	VL/VC	DEMO	
1.	Working with Basic SQL commands. (DDL,DML,DCL)						√	
2.	Working with Intermediate SQL. Commands(joins, views, aggregate functions)						√	
3.	Working with Advanced SQL commands (Procedures, Functions and Triggers)						√	
4.	Solving Database Design and Normalization Problems						√	
5.	Accessing Databases from Programs using JDBC						√	
6.	Building Web Applications using XML, PHP & MySQL						√	
7.	Working with indexing and Query Processing						√	
8.	Concurrency and Transactions						√	
9.	Data Analytics (classification & prediction)						√	
10.	Big Data Analytics using Hadoop						√	

7. Course Assessment Methods

Sl. No.	Mode of Assessment	Week/Date	Duration	Marks
1	Continuous assessment	Every week	3 hour	50
2	Test 1	7th week	2 hour	25
4	Semester Examination	11th week	2 hour	25
			Total	100

8. Essential Readings (Textbooks, Reference books, Websites, Journals, etc.)

Text Books:

1. A. Silberschatz, H. Korth, S. Sudarshan, Database system concepts, 5/e, McGraw Hill,2008.
2. R. Ramakrishnan, J. Gehrke, Database Management Systems, McGraw Hill, 2004

COURSE EXIT SURVEY

1. Students' feedback through class committee meetings

2. Feedback questionnaire collected from students through MIS before end semester examination

COURSE POLICY

1. All the students are expected to attend all the contact hours. Anyhow students who fall short of 75% attendance to the contact hours are not eligible to appear for the final written examination of 50% weightage.

2. For valid reasons, students who fall on 50-75% attendance range have to attend a compensatory examination and have to attain more than 50%. Those who have secured less than 50% are not eligible to appear for the final written examination of 50% weightage.

3. In case of any student found guilty indulging in any mal practice, he/she will be awarded no marks in that particular assessment. If found using mobile phones or any other gadgets for any mal-practice during the final written examination, the answer sheet of the student will not be evaluated and will be awarded ZERO marks in the final written examination.

ADDITIONAL COURSE INFORMATION

1. The Course Coordinator is available for consultation during the time intimated to the students then and there.

For Senate's Consideration

Course Faculty	S. Selvakumar Class Committee Chairperson 31 01 18	31/1/2018 (R. LEELA VELUSAMY) HoD