NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE PLAN – PART I			
Name of the programme and specialization	**M.Tech Computer Science**		
Course Title	**DBMS Laboratory**		
Course Code	**CS608**	**No. of Credits**	**2**
Course Code of Pre-requisite subject(s)	**CS604 Advanced Databases**		
Session	**January 2021**	**Section (if, applicable)**	**-**
Name of Faculty	**Dr. A. Santhanavijayan**	**Department**	**CSE**
Official Email	**vijayana@nitt.edu**	**Telephone No.**	**0431-2503217**
Name of Course Coordinator(s) (if, applicable)	**Dr. A. Santhanavijayan**		
Official E-mail	**vijayana@nitt.edu**	**Telephone No.**	**0431-2503217**
Course Type (please tick appropriately)	**Laboratory Course**		

Syllabus (approved in Senate)

Do refer the link:

https://www.nitt.edu/home/academics/curriculum/M.Tech-CS-CS-2019.pdf

COURSE OBJECTIVES

- To explore the features of a Database Management Systems
- To interface a database with front end tools
- To understand the database design and normalization techniques
- To understand the internals of a database system
- To implement supervised and unsupervised learning techniques on relational data using Python/R programming language

MAPPING OF COs with POs

Course Outcomes	Programme Outcomes (PO)
1. Comprehend the internal working of a database system	**1,2,3,5,6,10,11**
2. Design database and apply normalization techniques	**1,2,3,5,6,11**
3. Design and develop a database using SQL and the mechanism	**1,2,3,5,6,7,10,11**

in connecting with a Web based GUI	
4. Apply Machine learning algorithms to the real time datasets using Python/R programming languages	**1,2,3,5,6,7,10,11**

COURSE PLAN – PART II

COURSE OVERVIEW

This course emphasizes the concepts of file organization, Query Optimization, and Transaction management for database applications.

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week/Contact Hours	Topic	Mode of Delivery (Online Mode : MS Teams)
1	Week 1 / 3 Hours	Working with Basic SQL	Hands-On practice
2	Week 2 / 3 Hours	Working with Intermediate SQL	Hands-On practice
3	Week 3 / 3 Hours	Advanced SQL using procedures, functions and Triggers	Hands-On practice
4	Week 4 / 3 Hours	Database Design and Normalization techniques	Hands-On practice
5	Week 5 / 3 Hours	Working with XML and Accessing Databases from Programs using JDBC	Hands-On practice
6	Week 6 / 3 Hours	Working with PHP and MySQL	Hands-On practice
7	Week 7 / 3 Hours	Indexing and Query Processing and Query Evaluation Plans	Hands-On practice
8	Week 8 / 3 Hours	Working with classification algorithms using Python / R programming	Hands-On practice
9	Week 9 / 3 Hours	Working with clustering techniques using Python / R programming	Hands-On practice

10	Week 9 / 3 Hours	Database Design and implementation (Mini Project)	Hands-On practice

COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Continuous Assessment	Regular Lab Session	3 Hours	50
2	Model Exam	4th Week of April	3 Hours	20
3	End Semester Exam	1st Week of May	3 Hours	30

REFERENCES

1. Silberschatz, Henry F. Korth, and S. Sudharshan, "Database System Concepts", 6th Ed., McGraw Hill, 2010.

2.RamezElmasri and Shamkant B. Navathe, "Fundamentals of Database Systems", Seventh Edition, Pearson Education / Addison Wesley, 2016

COURSE EXIT SURVEY

Feedbacks are collected before final examination through MIS or any other standard format followed by the institute.

COURSE POLICY (including compensation assessment to be specified**)**

MODE OF CORRESPONDENCE (email/ phone etc)

E-mail

ATTENDANCE POLICY (A uniform attendance policy as specified below shall be followed)

- At least 75% attendance in each course is mandatory.
- A maximum of 10% shall be allowed under On Duty (OD) category.
- Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.

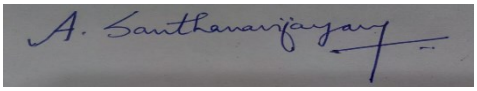
ACADEMIC DISHONESTY & PLAGIARISM

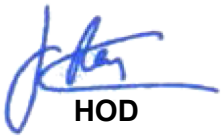
- Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
- Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
- The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.
- The above policy against academic dishonesty shall be applicable for all the programmes.

ADDITIONAL INFORMATION, IF ANY

The students can clarify their doubts at any time during working hours from the faculty with prior appointment.

FOR APPROVAL





Course Faculty	CC- Chairperson	HOD
Dr. A. Santhanavijayan	Dr. R. Leela Velusamy	Dr. Rajeswari Sridhar

Guidelines

a) The number of assessments for any theory course shall range from 4 to 6.

b) Every theory course shall have a final assessment on the entire syllabus with at least 30% weightage.

c) One compensation assessment for absentees in assessments (other than final assessment) is mandatory. Only genuine cases of absence shall be considered.

d) The passing minimum shall be as per the regulations.

B.Tech. Admitted in				P.G.
2018	2017	2016	2015	
35% or (Class average/2) whichever is greater.		(Peak/3) or (Class Average/2) whichever is lower		40%

e) Attendance policy and the policy on academic dishonesty & plagiarism by students are uniform for all the courses.

f) Absolute grading policy shall be incorporated if the number of students per course is less than 10.

g) Necessary care shall be taken to ensure that the course plan is reasonable and is objective.