

Database Administration and Management-Lab					
Credit Hours:	1	Course Code:	INFT-3210	Prerequisites:	None
Course Learning Outcomes (CLOs):					
At the end of the course, the students will be able to:				Domain	BT Level**
1. <i>Understand basic concepts of DBMS architecture</i>				C	1
2. <i>Understand basic concepts of SQL *PLUS Overview and Oracle Views.</i>				C	2
3. <i>Understand basic concepts of Modifying Data and Oracle Processes.</i>				C	3
4. <i>Understand basic concepts of Managing Constraints in Oracle</i>				C	3
5. Understand basic concepts of Managing Views, User Access and Security					
* BT= Bloom's Taxonomy, C=Cognitive Domain, P=Psychomotor Domain, A=Affective Domain					
Course Contents:					
Installing and configuring Oracle DBMS or alternative, using SQLPlus and iSQLPlus for basic querying and scripting, performing DML and transaction control exercises, creating and managing constraints and views, user and role management with privilege control, starting and stopping the database instance, monitoring sessions, managing control files and redo logs, creating and altering tables and indexes, implementing backup and recovery strategies, simulating failure and recovery operations, basic performance monitoring and tuning labs, configuring network settings for DBMS, hands-on with cloud database interfaces and tools, database security and audit logging exercises, hands-on with NoSQL databases (e.g., MongoDB, Cassandra), implementing Big Data tools for database analytics, using container technologies for database deployment, implementing security features (encryption and data masking), automation scripts for backup and maintenance, configuring and managing cloud DBaaS platforms.					
Teaching Methodology:					
Lectures, Written Assignments, Practical labs, Semester Project, Presentations.					
Course Assessment:					
Mid Term Exams, Final Term Exams, Assignments, Quizzes, Project, Presentations, Practical Exam					
Reference Material:					
1. Database Administration: The Complete Guide to Db Practices and Procedures by Craig S. Mullins, 2 nd Edition, Year 2012, ISBN-13: 978-0133012729 2. Mastering SQL Server Database Administration. A Comprehensive Guide to Perfection and Productivity by Michael Kirshteyn, Year 2024, ISBN-13: 9798875587153 3. SQL in a Nutshell: A Desktop Quick Reference by Kevin Kline and Regina O. Obe, 4 th Edition, Year 2022, ISBN-13: 978-1492088820					