

SIXTEEN WEEK TEACHING PLAN

Course & Course Code	Database Administration and Management /INFT-3104
Credit Hours	3
Department	Department of Information Technology
Course Type:	Applied
Theory/Lab	Theory
Program/semester/section	BS Information Technology
Semester	BSIT 6 th (A, B)
Office	COSC-2.17AL

Note: For practical/lab work, a separate teaching plan can be prepared.

Week 1	
Objectives / Learning Outcome	Understand basic concepts of DBMS architecture
Contents / Sub Contents	Introduction: DBMS architecture and data independence, DBA roles and responsibilities
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 2	
Objectives / Learning Outcome	Understand basic concepts of SQL *PLUS Overview and Oracle Views.
Contents / Sub Contents	SQL *PLUS Overview: SQL Plus Fundamentals, Producing more readable outputs, Accepting values at runtime, Using iSQL *Plus
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 3	

Objectives / Learning Outcome	Understand basic concepts of SQL *PLUS Overview and Oracle Views.
Contents / Sub Contents	Modifying Data: Introduction to DML Statements, Truncating a table, Transaction control language
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 4	
Objectives / Learning Outcome	Understand basic concepts of SQL *PLUS Overview and Oracle Views.
Contents / Sub Contents	Managing Constraints: Creating constraints, Dropping constraints, enabling and disabling constraints, deferring constraints checks
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 5	
Objectives / Learning Outcome	Understand basic concepts of SQL *PLUS Overview and Oracle Views.
Contents / Sub Contents	Managing Views: Creating and modifying views, Using views, Inserting, Updating and deleting data through views
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 6	
Objectives / Learning Outcome	Understand basic concepts of Modifying Data and Oracle Processes
Contents / Sub Contents	User Access and Security: Creating and modifying use accounts, creating and using roles, granting and revoking privileges, Managing user groups with profiles
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins

Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 7	
Objectives / Learning Outcome	Understand basic concepts of Modifying Data and Oracle Processes
Contents / Sub Contents	Oracle Overview and Architecture: An overview of logical and physical storage structures, Oracle memory structures
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 8	
Objectives / Learning Outcome	Understand basic concepts of Modifying Data and Oracle Processes
Contents / Sub Contents	Oracle background processes, connecting to oracle instance, processing SQL command.
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 9	
Objectives / Learning Outcome	Understand basic concepts of Managing Constraints in Oracle
Contents / Sub Contents	Managing Oracle: starting up the oracle instance, managing sessions
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 10	

Objectives / Learning Outcome	Understand basic concepts of Managing Constraints in Oracle
Contents / Sub Contents	Shutting down the oracle instance, instances messages and instance alerts.
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 11	
Objectives / Learning Outcome	Understand basic concepts of Managing Constraints in Oracle
Contents / Sub Contents	Control and Redo Log Files: Managing the control files, Maintaining and monitoring redo log files
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
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Week 12	
Objectives / Learning Outcome	Understand basic concepts of Managing Constraints in Oracle
Contents / Sub Contents	Managing tables, indexes and constraints: Storing data (create, alter, analyzing, querying table information), Managing indexes, Managing constraints
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 13	
Objectives / Learning Outcome	Understand basic concepts of Backup, Managing Views, User Access and Security
Contents / Sub Contents	Managing Users and Security: Profiles, Managing users, managing privileges, managing roles, querying role information.

Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
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Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
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Week 14	
Objectives / Learning Outcome	Understand basic concepts of Backup, Managing Views, User Access and Security
Contents / Sub Contents	Introduction to Network Administration: Network design considerations, network responsibilities for the DBA, network configuration, Overview of oracle Net features, Oracle Net Stack Architecture
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 15	
Objectives / Learning Outcome	Understand basic concepts of Backup, Managing Views, User Access and Security
Contents / Sub Contents	Backup and Recovery Overview: Database backup, restoration and recovery, Types of failure in oracle environment, defining a backup and recovery strategy, Testing the backup and recovery plan.
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning
Learning Material	Database Administration: The Complete Guide to Db Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm
Week 16	
Objectives / Learning Outcome	Understand basic concepts of Backup, Managing Views, User Access and Security
Contents / Sub Contents	Introduction to performance tuning: brief overview of Tuning methodology, General tuning concepts.
Appropriate Teaching Strategies / Methods	Lecture/ Activity based learning

Learning Material	Database Administration: The Complete Guide to DbA Practices and Procedures 2nd Edition by Craig S. Mullins
Appropriate Assessment Tools	Mid, Final, Quiz, Assignment
Assessment Schedule	During Spring 2022 Semester
Others	https://www.oracletutorial.com/oracle-administration/ https://www.tutorialride.com/dbms/database-administrator.htm

Curriculum Contents:

Introduction: DBMS architecture and data independence, DBA roles and responsibilities, SQL *PLUS Overview: SQL Plus Fundamentals, Producing more readable outputs, Accepting values at runtime, Using iSQL *Plus, Modifying Data: Introduction to DML Statements, Truncating a table, Transaction control language, Managing Constraints: Creating constraints, Dropping constraints, enabling and disabling constraints, deferring constraints checks, Managing Views, User Access and Security: Creating and modifying use accounts, creating and using roles, granting and revoking privileges, Managing user groups with profiles, Oracle Overview and Architecture, Managing Oracle: starting up the oracle instance, managing sessions, shutting down the oracle instance, instances messages and instance alerts, Control and Redo Log Files: Managing the control files, Maintaining and monitoring redo log files, Managing tables, indexes and constraints: Storing data (create, alter, analyzing, querying table information), Managing indexes, Managing constraints, Managing Users and Security: Profiles, Managing users, managing privileges, managing roles, querying role information, Introduction to Network Administration: Network design considerations, network responsibilities for the DBA, network configuration, Overview of oracle Net features, Oracle Net Stack Architecture, Backup and Recovery Overview: Database backup, restoration and recovery, Types of failure in oracle environment, defining a backup and recovery strategy, Testing the backup and recovery plan, Introduction to performance tuning: brief overview of Tuning methodology, General tuning concepts.
