Presenter	Week	#	Topic	Assignments	
Orogat	Week 1	1	Database Introduction and Course Outline		
	Week 2	2	Relational Algebra		
		3	Tuple Relational Calculus		
	Week 3	4	SQL - DDL and DML	A1 Two weeks: 15-Sep to 28-Sep Topics: RA, TRC, and Simple SQL	
		5	SQL (DQL: SELECT-FROM-WHERE-...)		
	Week 4	6	SQL (DQL: AGR()-GROUP BY-HAVING-SETS-...)		
		7	SQL (DQL: Complex Queries and SubQueries)		
	Week 5	8	SQL (DQL: VIEWs-INDEX-FUNCTIONs-...)	A2 Two weeks: 29-Sep to 12-Oct Topics: SQL and ER	
		9	Entity-Relationship (ER) Model		
	Week 6	10	Entity-Relationship (ER) Mapping		
		11	Functional Dependencies and Normalization Theory		
	Week 7	12	Application Development	Final Project Release 15-Oct-2025	
		13	Project Discussion		
	Week 8	14	Fall break, no classes.		
		15	Fall break, no classes.		
	Week 9	16	Physical Storage	A3 Two weeks: 27-Oct to 9-Nov Topics: Application Development and Functional Dependencies and Normalization	
		17	Data Storage Structures and Indexing		
	Week 10	18	Query Processing		
		19	Query Optimization		
	Week 11	20	NO SQL - Introduction	A4 Two weeks: 10-Nov to 23-Nov Topics: Physical Storage Systems, Query Processing and Optimization	
		21	NO SQL - Document-Oriented Database (MongoDB)		
	Week 12	22	NO SQL - Graph-Oriented Database (Directed Edge-Labelled Graph [RDF])		
		23	NO SQL - Graph-Oriented Database (Directed Edge-Labelled Graph [SPARQL		
Students	Week 13	24 [	NO SQL - Graph-Oriented Database (Property Graph [Neo4J])	A5 One weeks: 24-Nov to 30-Nov Topics: NoSQL. Autograded; No TAs required.	Final Project Due 01-Dec-2025
		25	NO SQL - Graph-Oriented Database (Property Graph [Neo4J-CYPHER])		
	Week 14	26	Vector DB - Milvus [Target ML students]		
		27	Research Topic: Text-to-SQL		

[1] Student based Lectures