

course_roadmap_is455_fall_2025.xlsx

Week	Topics	Readings	Assignments	Final Project
1	Course Startup	Syllabus	Computing Setup	
2	Introduction to relational databases Exploring typical modes of accessing RDBs How to use MySQL Workbench & other tools How to Retrieve Data From a Single Table	Murach Chaps. 1 - 3	MGS Chap. 3	
3	How to retrieve data from two or more tables	Murach Chap. 4	MGS Chap. 4	
4	How to insert, update, and delete data	Murach Chap. 5	MGS Chap. 5	Brainstorm
5	Conceptual data modeling	Oppel Chaps. 1, 2, 3, 5	Conceptual Data Model	Brainstorm
6	Logical database design using normalization	Oppel Chap. 6	Logical Database Design	Brainstorm
7	How to work with data types Physical database design How to use MySQL Workbench for DB Design	Murach Chap. 8 Oppel Chap 8. Murach Chap. 10 (partial)	MGS Chap. 8 MGS Chap. 10	Brainstorm
8	How to create databases, tables, and indexes How to create views	Murach Chaps. 11, 12	MGS Chap. 11 MGS Chap. 12	Brainstorm
9	How to code summary queries	Murach Chap. 6	MGS Chap. 6	Proposal Due
10	How to code subqueries	Murach Chap. 7	MGS Chap. 7	Work On
11	How to use functions	Murach Chap. 9	MGS Chap. 8 MGS Chap. 9	Work On
12	How to use transactions and locking How to backup and restore a database	Murach Chaps. 14, 19	MGS Chap. 14 MGS Chap. 19	Work On
13	Course Wrapup & Lab session for final project			Work On
14	Fall Break			
15	Lab session for final project			Work On
16	Lab session for final project			Deliverables Due
17	Final Exam Period			