SCHEDULE OVERVIEW

This tentative schedule outlines the major topics and events planned for the semester. See the Unit Lessons in the Sakai site for details.

GENERAL RECOMMENDATIONS:

- Units open on Tuesday at 8:30 am: you will be able to see the list of all materials, exercises, and assignments at that time.
- Complete materials and exercises in the order shown in each unit. (Sakai will enforce the sequence – you will not be able to skip over any items.)
- You will be able to read assignment and project specifications when the Unit opens, but you should learn the Unit's material before completing them.
- You may work at your own speed during each unit. I have marked what I would consider to be a week's worth of work within each unit, to serve as a rough guideline.
- Discussions, Assignments, and Project Deliverables have specific due dates; be sure you submit your work by the deadline. (Of course, you are welcome to submit them earlier!)
- Tests have specific opening and closing dates; be sure you are ready to take each test during the testing window.

Unit Start Date	Unit End Date	Topic	Graded Assignment (with Due Date)
UNIT 1 Tuesday 2020-08-11	UNIT 1 Monday 2020-08-24	Database Concepts [2 weeks]	Welcome and Introduction Assignment 1: Official course documents, introductions, survey of DB experience. Due Monday 2020-08-17, 11:55 pm Videos: Orientation, Movie DB Exercise: Movie DB Exercise **------ end of week ------** Videos: DB Concepts Part 1, DB Concepts Part 2 Discussion: What's in CC? Complete any time before 2020-08-24, 11:55 p.m. Slides: DB Environment Exercises: DB Concepts Exercises 1, DB Concepts Exercises 2 Database Concepts Test: opens Saturday 2020-08-22 8:00 a.m., due Tuesday 2020-08-25, 11:55 pm.
UNIT 2 Tuesday 2020-	UNIT 2 Monday 2020-	ER Models [3 weeks]	Introduction to the Unit Videos and documentation: How to draw an ER model, Entities and Attributes,

08-25	09-14		Composite Attributes, Keys, Relationships: Degree and Cardinality, Relationships: Participation and Practice, Meet the Grants Database: Overview of the Grants DB, Reading the Grants ER Exercises: Entity Relationship (1), Entity Relationship (2) Project 1: Select database problem, read requirements, draw ER. Due Monday 2020-09-21, 11:55 pm **------ end of week ------** Videos: Ternary Relationships, Weak Entities Exercises: Entity Relationship (3), Entity Relationship (4) Assignment 2, ER Models. Due Monday 2020-09-14, 11:55 pm. **------ end of week ------** Videos: Extended ER Concepts, Extended ER Design Exercise: More Design Practice ER & EER Test: opens Saturday 2020-09-12 8:00 a.m., due Tuesday 2020-09-15,11:55 *Note: Diagrams in Extended ER Concepts and Extended ER Design are from Elmasri & Navathe, 2011: (8.1, 8.3 8.4, 8.5)*
UNIT 3 Tuesday 2020-09-15	UNIT 3 Monday 2020-09-28	Relational Concepts & Mapping [2 weeks]	Introduction to the Unit Videos: Relational Concepts (Capra), The Nursery, or What does a PK Identify? Exercises: Relational concepts (1), Relational concepts (2) Discussion: Implications of Design Decisions: Contributions and responses due Monday 2020-09-21, 11:55 pm **------ end of week ------** Read Elmasri & Navathe, (2011) Fundamentals of Database Design, Addison Wesley. Ch. 9, Relational DB Design by ER and EER to Relational Mapping, 285-299 Videos: ER-DB Mapping: The Grants DB, Mapping the Movie ER Exercises: ER to Schema, Schema to ER, ER-DB Assignment 3: Mapping. Due Monday 2020-09-28, 11:55 pm. Relational Concepts and Mapping Test: opens Saturday 2020-09-26 8:00 a.m., due Tuesday 2020-09-29, 11:55 pm.
UNIT 4 Tuesday 2020-	UNIT 4 Monday 2020-	SQL Part 1 [3 weeks]	Introduction to the Unit Videos and documentation: Introduction to SQL, Creating Tables, Inserting Records, Download Instructions: DB Browser for SQLite, DB

09-29	10-19		Browser for SQLite Demo, Using SQLite with the Grants Database Exercises: Mapping Practice, SQL (1), Exercise: SQL (2) Assignment: DB Practice. This brief exercise is practice for submitting the types of materials you will submit for your final project. Due Monday 2020-10-19, 11:55 pm. **------ end of week ------** Videos: Basic Queries, Joining Tables, More about Queries, Aggregate Queries Exercises: SQL (3), Schema Practice, Exercise: SQL (4) Project 2: schema, data dictionary, create statements. Expect to revise P1 based on my comments and suggestions, before you start P2. Due Monday 2020-10-26, 11:55 pm
UNIT 5 Tuesday 2020-10-20	UNIT 5 Monday 2020-11-02	SQL Part 2 [2 weeks]	Introduction to the Unit Videos: More About Joins Exercises: SQL (5), SQL (6) **------ end of week ------** Videos: Set Operators, Nested and Correlated Queries, Views and Triggers, Anatomy of a Query Exercises: SQL (7) Query Practice, SQL (8): More SQL Practice Assignment 4, SQL: Due Monday 2020-11-02, 11:55 pm. SQL Test: opens Saturday 2020-10-31 8:00 a.m., due Tuesday 2020-11-03, 11:55 pm.
UNIT 6 Tuesday 2020-11-03	UNIT 6 Monday 2020-11-16	Design, Normalization, and Data Quality [2 weeks]	Introduction to the Unit Videos: Good Design, Introduction to Functional Dependencies, Introduction to Normalization Exercises: SQL (9) Even more SQL Practice, SQL (10) The final SQL, FDs & Normalization (1), FDs & Normalization (2) **------ end of week ------** Videos: Normalization: 1NF & 2NF, Normalization: 3NF & Summary, Data Quality, Reverse Engineering the Tour Company Exercises: Normalization (1), Normalization (2), Reverse Engineering Discussion: Databases in you/our/society's future. Contributions and responses due Monday 2020-11-16, 11:55 pm

			Assignment 5, FDs and Normalization: Due Monday 2020-04-20, 11:55 pm. Test 5, Good Design, Functional Dependencies, and Normalization: opens Saturday 2020-04-18 8:00 a.m., due by Tuesday 2020-11-16, 11:55 pm. Project 3: records, queries, lessons learned. Expect to revise P2 based on my comments and suggestions, before you start P3. Due Thursday 2020-11-24, 4:00 pm.
UNIT 7 Tuesday 2020-11-17	UNIT 7 Monday 2020-11-23, 8:00 am	Project Completion	Introduction to the Unit Project 3 due Monday 2020-11-23, 8:00 am. *Note: There is no final exam in this course.*