Critical Path
HTTP 5126 - Database Winter 2024

Instructor: Jemi Choi

The Critical Path is the course schedule. It is an important document that lays out weekly **and/or** module objectives that you are responsible for to ensure academic success. Download and/or print out a copy of the Critical Path and refer to it regularly.

Week	Topics, Readings, and Activities	Weight	Due
1	**Module 1: Introduction to Data Design** **Topics:** · Introduction to the course · Introduction to data and database core concepts **Activities:** · Assignment 1 --	10%	Assign 1
2	**Module 2: Accessing Data Part 1** **Topics:** · Retrieving data from a database table with SQL queries · Limiting columns · Limiting rows with the WHERE clause and comparison operators · Creating Aliases for columns **Activities:** - Assignment 2 --	10%	Assign 2
3	**Module 3: Accessing Data Part 2** **Topics:** · Removing duplicate rows with DISTINCT · - Refining results with logical operators · Refining results with LIKE, BETWEEN, IN and IS NULL · Sorting the result set with ORDER BY **Activities:** · Assignment 3 --	8%	Assign 3

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4	**Module 4: Grouping Results and Aggregate** Functions Topics: · Aggregate functions MAX, MIN, COUNT, AVG, SUM, GROUP BY, HAVING **Activities:** · Quiz 1 -- · Assignment 4 ---	 2% 8%	Assign 4
5	**Module 5: Using Built-in Functions** **Topics:** · Retrieving data from multiple tables **Activities:** Assignment 5 ---	 8%	Assign 5
6	**Module 6: Database Design Part 1** **Topics:** · Database design fundamentals · Identifying tables & labeling columns - Relationships between tables · Primary keys and foreign keys · Data types in MySQL **Activities:** · Assignment 6 ---	 6%	Assign 6
7	**Module 7: Database Design Part 2** **Topics:** · CRUD functionality **Activities:** · Quiz 2 -- - Assignment ---	 2% 6%	Assign 7
	READING WEEK		

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8	**Module 8: Database Design Part 3** **Topics:** · General principles of database design · Relationship types · Constraints · Normalization · Optimizing with indices **Activities:** Assignment ---	8%	Assign 8
9	**Module 9: Views & Triggers** **Topics:** · Views · Triggers **Activities:** Assignment 9 --	4%	Assign 9
10	**Module 10: Custom Functions** **Topics:** · Creating custom functions · Implementing conditions & loops **Activities:** · Quiz 3 --	3%	
11	**Module 11: Procedures** **Topics:** · Creating and using stored procedures · Parameters for procedures · Cursors **Activities:** · Quiz 4 --	3%	Final Project: Proposal

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12	**Module 12: User Management** **Topics:** · Providing access to your data · Passwords in MySQL · User management · Permissions & privileges **Activities:** · Quiz 5 --	2%	
13	**Module 13: Project Presentations I** **Topics:** · Animal Sanctuary Database architecture **Activities:** · Final Project presentation -------------------------	20%	Presentations
14	**Module 14: Project Presentations II** **Topics:** · Animal Sanctuary Database architecture		Presentations

Summary of Graded Course Components	Weight
9 Assignments	68%
5 Quizzes	12%
1 Project (proposal + presentation)	20%
Total	100%