

HTTP Critical Path

Web Development Lab 1 – Database

HTTP 5112, Fall 2023

Tues/Wed 11:40 - 2:20PM

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.

Module Breakdown

Week	Topics, Readings, and Activities	Due Dates	Weight
1	Module 1: Introduction to Data Design Topics: <ul style="list-style-type: none">• Introduction to the course• Introduction to data and database core concepts Activities: <ul style="list-style-type: none">• Assignment 1 (5%)		5%
2	Module 2: Accessing Data Part 1 Topics: <ul style="list-style-type: none">• 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:	Sept 19/20	5%

Week	Topics, Readings, and Activities	Due Dates	Weight
	• Assignment 2 (5%)	Sept 25/26	
3	Module 3: Accessing Data Part 2 Topics: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Quiz 1 (1%) • Assignment 3 (4%) 	Sept. 26/27 Oct 2/3/	1% 4%
4	Module 4: Join Operations Topics: <ul style="list-style-type: none"> • Retrieving data from multiple tables Activities: <ul style="list-style-type: none"> • Quiz 2 (1%) • Assignment 4 (4%) 	Oct 3/4 Oct 9/10	1% 4%
5	Module 5: Using Built-in Functions Topics: <ul style="list-style-type: none"> • Aggregate functions MAX, MIN, COUNT, AVG, SUM, GROUP BY, HAVING Activities: <ul style="list-style-type: none"> • Quiz 3 (1%) 	Oct. 10/11 Oct. 16/17	1% 3%

Week	Topics, Readings, and Activities	Due Dates	Weight
	• Assignment 5 (3%)		
6	Module 6: Database Design Part 1 Topics: <ul style="list-style-type: none"> • Database design fundamentals • Identifying tables & assigning columns • Relationships between tables • Primary keys and foreign keys • Data types in MySQL Activities: <ul style="list-style-type: none"> • Quiz 4 (1%) • Assignment 6 (3%) 	Oct. 17/18 Oct. 19/20	1% 3%
	READING WEEK	Oct 23-27	
7	Module 7: Database Design Part 2 Topics: <ul style="list-style-type: none"> • CRUD functionality Activities: <ul style="list-style-type: none"> • Quiz 5 (1%) 	Oct. 31/ Nov1	1%

8	Module 8: Database Design Part 3 Topics: <ul style="list-style-type: none"> • General principles of database design • Relationship types • Constraints • Normalization 	Nov 7/8	
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Week	Topics, Readings, and Activities	Due Dates	Weight
	<ul style="list-style-type: none"> • Optimizing with indices 		
9	Module 9: Views & Triggers Topics: <ul style="list-style-type: none"> • Views • Triggers Activities: <ul style="list-style-type: none"> • Quiz 6 (1%) 	Nov. 14/15	1%
10	Module 10: Custom Functions Topics: <ul style="list-style-type: none"> • Creating custom functions • Implementing conditions & loops Activities: <ul style="list-style-type: none"> • Quiz 7 (1%) 	Nov. 21/22	1%

11	Module 11: Procedures Topics: <ul style="list-style-type: none"> • Creating and using stored procedures • Parameters for procedures • Cursors Activities: <ul style="list-style-type: none"> • Quiz 8 (1%) 	Nov. 28/29	1%
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Revised Sep 15, 2021

Week	Topics, Readings, and Activities	Due Dates	Weight
12	Module 12: User Management Topics: <ul style="list-style-type: none"> • Providing access to your data • Passwords in MySQL • User management • Permissions & privileges Activities: <ul style="list-style-type: none"> • Quiz 9 (1%) 	Dec. 5/6	1%
13	Topics: <ul style="list-style-type: none"> • Database application project presentations Activities: <ul style="list-style-type: none"> • Database Application Project (16%) 	Dec. 12/14	16%

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Summary of Graded Course Components

Summary	Weight
Total for all Quizzes (x 10)	10%
Total for all Assignments (x 6)	24%

Total for all Projects (x 2) 16% **Total** 50%