

# CIS 210 – Fall 2021

## Database Design and Implementation

**Instructor:** Robert S. Dollinger

**Office Hours:** TBD

**Office:** B229 Science

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### *Administrative Information*

#### **Text Rental**

**Carlos Coronel, Steven Morris** - *Database Systems: Design, Implementation & Management*, 13th edition, CENGAGE Learning, 2019, ISBN-13: 978-1337627900.

#### **Website Resources**

Plenty of them world wide, just “google” any of the keywords.

#### **Canvas**

Look for CIS 210 site.

#### **Attendance**

Regular attendance is expected. Students are responsible for all materials during their absence.

#### **Grades**

##### Homework Assignments:

- To receive full credit, assignments must be handed in on time.
- **To be acceptable for grading, they must be neat, readable, and professional looking. Assignments that fail to do so will be assigned a score of zero.**
- Assignments are due on assigned dates. No late assignments.
- Missing assignments will receive a grade of 0.

##### Testing: [No make-up exams will be given]

Two content tests during the semester. [*Oct., Nov.*]

A comprehensive final.

Course grade will be calculated as follows:

45%	Content Tests [equal value]	10%	Extra Work
25%	Final Exam	20%	Assignments
10%	Course Participation		

##### Grading criteria: Cut-off percentages

	B+	86.5%	C+	76.5%	D+	66.5%	F	Below 62.5%
A	92.5%	B	82.5%	C	72.5%	D	62.5%	
A-	89.5%	B-	79.5%	C-	69.5%			

\*Flexibility in the above grading criteria will be provided by various opportunities for make-up and extra work such that interested and dedicated students may always have the chance of improving their final grade.

## Basic Terms

**Assignments** – mandatory, fully graded, directly contributing to your final grade. Feedback within 3 working days, correct solutions discussed in the classroom. Expect 8-10 assignments over the semester.

**Optional assignments** – occasionally, for more difficult problems and motivated students. Good opportunity for grade enhancements, make-ups, extra-credit.

## Working with DBMSs

You can choose to work at home as well by installing a free release of any of the above DBMSs or by remotely connecting to the UWSP DB Server. Server name and student's accounts will be communicated in the classroom. Courtesy of the instructor, some step by step procedures are available to help setting up a working environment at home. However, this is a personal option of each student and the CIS Department is not responsible for any failure in this respect.

## Course Objectives

### Understand relational databases!!!

Gain proficiency in SQL, including correlated sub-queries and outer joins.

Be able to design, implement and query a relational database.

## Course Topics

Database Systems: Need and evolution;

Database Design: E/R Data Model, Relational Data Model, Convert E/R Description to Relational Schema;

Implement Relational Schemas using SQL DDL: describe tables, indexes, constraints; Views;

SQL Query Language: Simple Queries, Join Queries, Self-joins, Sub-queries, Correlated Sub-queries, Outer joins;

Database Security: Discretionary Access Control (DAC) model (user accounts, logins, granting and revoking privileges), Views as Security mechanism;

\*Database Refinement, Normalization;

\*Flow Control Languages, Stored Procedures.

\* - designates tentative topics. May be dropped at the expense of more detailed presentation of other more important topics.

## Office Hours Policy

Preferably, you should come during the office hours as scheduled.

Contact instructor to schedule ad-hoc Zoom session any time upon mutual agreement. Set-up request via email.

## Email

You can use email for shorter, immediate and specific questions. Good chance to get a response the same day.

## Academic Misconduct Policy

See: <http://www.uwsp.edu/dos/Documents/Community%20Rights%20and%20Responsibilities.pdf#page=8>

## Student Rights and Responsibilities

See: <http://www.uwsp.edu/dos/Pages/Information%20for%20Students.aspx>