

# CIS 207 - Database Design and SQL SPRING 2024

Instructor:	Prof D. Whitney
Email address:	<u>dwhitney@cerritos.edu</u>
Home page:	http://www.cerritos.edu/dwhitney
Location & Time:	ONLINE. (Mandatory online orientation Monday, Jan 8, Online orientation quiz due by 1/12.)
Ticket number:	CIS 207 - #32245 online
Phone number:	(662) 880-2451 Ext. 4489
Text:	Text & Study materials provided
Drop Date	4/17/2024

BASIS FOR DETERMINING COURSE GRADE			A >=90%
Orientation quiz Due end of 1st week.		13	B >=80%
Lab Assignments 14 @ 20 points each	2	280	C >=70%
Exams, 3 @ 50 points each	1	50	D >=60%
Final Exam		50	F < 60%
	Total 4	193	

## **Tentative Schedule**

The schedule is subject to change.

Wk	Date		Topics	Oracle Academy	Assignments	Labs Due
	Mon	Fri	DATABASE DESIGN			Due Fri
1	1/8	1/12	Overview of class, Introduction to Oracle Academy	Sec. 1		
2	1/15	1/19	Conceptual and Physical Models, etc	Sec. 2, 3	Lab 1	
3	1/22	1/26	Subtypes and Supertypes, etc  · Business Rules  · Relationship types & transferability  · Many-to-Many relationships  · CRUD	Sec. 4, 5	Lab 2	
4	1/29	2/2	Normalization & First Normal Form, etc	Sec. 6, 7	Lab 3	Lab 1
5	2/5	2/9	Historical data modeling     Modeling attributes which change with time, Price etc.     Drawing conventions     Generic Modeling	Sec. 8	Lab 4, DD Exam 1	Lab 2
6	2/12	2/16	Relational Database concepts  Basic mapping Relationship mapping Subtype modeling	Sec. 9	Lab 5	Lab 3
	2/19	2/23	DATABASE PROGRAMMING			
7	2/26	3/1	Oracle Application Express  Relational Database Technology Anatomy of SQL statements Selection criteria, data types Limiting columns and rows	Sec. 1, 2	Lab 6	Lab 4

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Wk	Date		Topics	Oracle Academy	Assignments	Labs Due	
			Comparison operators & precedence rules     Columns, character & Rows				
8	3/4	3/8	Logical Comparisons and Precedence Rules <ul><li>Sorting</li><li>Functions</li></ul>	Sec. 2, 3	DD Exam #2	Lab 5	
	3/11	3/15	Spring Recess				
9	3/18	3/22	<ul> <li>Case and Character manipulation</li> <li>Number &amp; date functions</li> <li>Conversion Functions</li> <li>General and conditional expressions</li> <li>Null Functions</li> <li>Conditional Expressions</li> </ul>	Sec. 4, 5	Lab 8	Lab 6	
10	3/25	3/29	Cartesian Products and Join operations <ul> <li>Non-equijoins</li> <li>Self joins &amp; Hierarchical Queries</li> <li>Cross-joins and Natural joins</li> <li>Inner Vs. Outer joins</li> <li>Join Clauses</li> <li>Outer joins</li> </ul>	Sec. 6, 7	Lab 9	Lab 7	
11	4/1	4/5	Group functions, etc COUNT, DISTINCT, and NVL GROUP BY and HAVING clauses Rollup, Cube operations Set Operations	Sec. 8, 9	Lab 10	Lab 8	
12	4/8	4/12	Subqueries	Sec. 10, 11	Lab 11	Lab 9	
13	4/15	4/19	DML & DDL  · INSERT and Updating values  · Deleting rows  · DEFAULT, MERGE statements  · Creating Tables  · Modifying tables  · Data types	Sec. 12, 13	Lab 12	Lab 10	
14	4/22	4/26	NOT NULL, UNIQUE constraints  PRIMARY KEY, FOREIGN KEY, & CHECK constraints  Managing constraints  In-Class Views  DML Operations and Views  Managing Views  Creating Views	Sec. 14, 15	DP Exam #3	Lab 11	
15	4/29	5/3	Sequences     Indexes and Synonyms     Security, Privileges     Grant & Revoke Privileges     User Access control     Regular Expressions	Sec. 16, 17	Lab 14	Lab 12	
16	5/6	5/10	Database Transactions  Ensuring Quality Queries Part 2	Sec. 18, 20, Sec. 19, 20*	Lab 15, *(bonus)	Lab 13, Lab 14, 15,16*	
17	5/13	5/17	Final Exam, (after DP section 18)				
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#### **ORIENTATION:**

This is an Online Class. The Online Class Orientation document and the Online Orientation quiz are required to be completed by the end of the first week of class. You will find the document in Canvas/Files and the quiz in Canvas/Quizzes. If you don't complete this quiz, you are subject to be dropped from the Roster.

#### **ORACLE ACADEMY**

You will be provided with access to the text and testing materials through the Oracle Academy website. Your user access code to this site will be provided by your instructor. You will also need access to the Application Express (APEX) SQL server. This again is accessible via a web browser. The user ID and password will be also provided by your instructor at orientation. Chrome or Mozilla Firefox are the preferred browsers. Internet Explorer or Edge does not work well with Oracle sites.

#### LABS:

The lab assignments and links to lecture and supporting materials are found on the class web pages available through CANVAS. Log into CANVAS and your class then you will see the link class websites on the left menu. Additional information is on the class college website at <a href="http://www.cerritos.edu/dwhitney">http://www.cerritos.edu/dwhitney</a> and the other at the CANVAS site. Please refer to these pages for more information.

The lab assignments and links to lecture and supporting materials are found in Canvas. There are three sites for this class. Cerritos College Canvas, the Oracle Academy site and APEX. Please refer to these pages for more information. Make sure that you either print out the separate sheets that contains the lab assignments or save the word file version of the lab assignment. In the word version of the lab assignment, you insert your answers below the questions.

Revisions to schedule will be made to the syllabus and posted on the web sites for this class. Lab, lectures, and supporting materials for this class are posted on the two sites. Some things are only available on the CANVAS site. The CANVAS site has syllabus, grades, and location to submit lab files. Instructions to log on to the site will be provided during orientations. It is the student's responsibility to retrieve their assignments from the Canvas as scheduled on the syllabus. All assignment must be submitted to your instructor via CANVAS. They will ONLY be accepted through submitted through CANVAS.

Some things are only available on the 'Academy site. The Academy site has exams, lecture notes, and quizzes not found in the Canvas. Instructions to log on to the site will be provided during orientations. The Canvas site contains the information like the class syllabus, lab assignments, some PowerPoint presentation, support material, links to Academy and APEX and other procedural materials

Academic Honesty/Dishonesty Policy:
The work submitted by each student in this class is expected to their own work, not the work of others. Please be sure to read the college's Academic Honesty/Dishonesty Policy found in the catalogue and schedule of classes. A copy of the catalogue is located at <a href="www.cerritos.edu">www.cerritos.edu</a>. One or more of the following actions are available to the faculty member who suspects a student has been cheating or plagiarizing:

- 1. Review-no action.
- 2. An oral reprimand with emphasis on counseling toward prevention of further occurrences.
- 3. A reduction of the grade earned on the specific work in question, including the possibility of no credit for the work.
- 4. A reduction of the course grade as a result of item 4 above, including the possibility of a failing grade for the course.
- 5. Referral to the Office of Judicial Affairs for further administrative action, such as suspension or expulsion.

## **Student Learning Outcome:**

- Students will be able to construct a syntactically correct Structured Query Language (SQL) statement.
- Students will be able to develop an ER diagram for a database entity.
- Students will be able to use SQL to address a selected topic in database.
- Students will be able to construct a Structured Query Language (SQL) statement using a subquery.
- Students will be able to construct a Structured Query Language (SQL) statement using case and character manipulation.

#### **Attendance:**

- Attendance is very important. Please read the attendance policy in the college's catalog at <u>www.cerritos.edu</u> or in the schedule of classes. Students may be dropped from the class if they are considered to be excessively absent.
- Remember it is critical to keep in contact with your instructor.

- <u>Students must connect with the instructor by the first night</u>. Failure to do so may result in removal of their name from the roll to allow another student seeking admission to enter. If a student is unable to attend the first class meeting, the instructor must be notified before the first class meeting.
- For traditional (on campus) classes excessive absences will be defined as when the hours of absence exceed one more than twice the number of class hours per week.
- For online classes attendance students have a minimum of at least one communication with the instructor each week. Students that fail to communicate with the instructor for 3 weeks may be dropped.

Remember it is critical to keep in contact with your instructor. Roll-call/attendance is by emailing the instructor every week with the lab or chapter that you are working on. If you have not been heard from for 3 weeks or are not making academic progress you will be dropped from the class. Re-Read this paragraph.

### **Financial Aid:**

Any change in your enrollment may affect your financial aid award and disbursement amounts which could result in an over award, and you may owe a repayment of your financial aid funds. For further information please contact the Financial Aid Office at (562) 860-2451 Ext. 2397 or by e-mail at: finaid-staff-list@cerritos.edu.

#### **Student Accessibility Services**

I have made every effort to make this course accessible to all students. If you encounter a problem accessing anything in this course or require an academic adjustment based on the impact of a disability, please discuss this with me and contact Student Accessibility Services (SAS) at 562.860.2451 ext. 2335 or <a href="mailto:saaapply@cerritos.edu">saaapply@cerritos.edu</a>.