COLLEGE OF BUSINESS

IS380 Database Management Sec 02 4106 Spring 2021

Instructor: Jose Pineda
Office Hours: 3 hours Thursdays from 9:00 AM to 12:00 PM PST
Virtual Office Hours: https://csulb.zoom.us/j/82349472286
Email: jose.pinedadelgado@csulb.edu
Prerequisites: IS300 as corequisite; IS300 or HCA 416 for MIS minors

Course: IS380
Term: Spring
Class Days/Times: Mondays 7:00PM to 9:45PM
Class Location is through Zoom: https://csulb.zoom.us/j/87040840289?pwd=d1ZwcmhmV1pwQ1ZmOURQU3o0U2VvQT09
Meeting ID: 870 4084 0289
Passcode: 031570

Course Description

Introduction to database requirements, analysis, and specification. SQL query formulation. Database implementation using relational database management system software, such as Oracle. Design of computerized business forms and reports.

Further Information

Database management is one of the foundations in Information Systems education. Database is not only a central repository of business data, such data are used to generate strategic information needed by the organization. Business data are massive and complex in nature. The processing, storage, retrieval, manipulation, and management of large amount of business data is an essential part of every information system. This course is the first database course in IS curriculum. Many advanced courses references database understanding, so it is important that the instructor provides enough depth into this course. Major concepts include data integrity, conceptual modeling of data, and structured query language (SQL). In terms of SQL, instructors should cover data definition language, data manipulation language, transaction control concept, join, grouping, and subqueries. Introductory database administration concepts are also introduced.

In this course, we learn (1) fundamental database theories and methodologies, (2) core techniques for analyzing, designing, and implementing database systems, and (3) insights into emerging business applications enabled by database technology. Both fundamental theories and hands-on experiences are emphasized in this course. This is accomplished through lectures, in-class exercises, a group project, and discussions with problem sets while using MySQL DBMS.

Course Focus and Student Learning Outcomes (SLOs)

Upon successful completion of this course, students will be able to:

- **SLO1** – Design relational database schemas from problem statements including conceptual, logical, and physical database design.
- **SLO2** – Normalize a database using normal forms.
- **SLO3** – Employ Structured Query Language (SQL) to insert, manage, extract, or delete information from a database system.
- **SLO4** – Communicate, orally and in writing, database solutions to the various stakeholders.

Following these Learning Outcomes, students who pass IS 385 must demonstrate to have learned the following:

- Identify data anomalies and integrity
- Understand and conceptually manipulate data with relational algebra
- Understand normal forms and normalization
- Demonstrate competency in basic structured query language (SQL) commands
- Demonstrate competency in advance SQL such as grouping and subquery
- Understand introductory database administration concepts

Course Prerequisites

Corequisite: IS300 as a corequisite for IS majors or Pre-IS majors; or IS 300 or HCA 416 as a corequisite for MIS or ENTR minors. Business Analytics Certificate Freshmen excluded. For more information about prerequisites, click here.

Required Texts/Readings

Required Book

- MODERN DATABASE MANAGEMENT, 13th Edition, by J.A. Hoffer, V. Ramesh, and H. Topi, Pearson, 2018. ISBN: 978-0-13-477365-0.

This book can be purchased from the bookstore on campus among other bookstores. The book can also be easily found online in many marketplaces including Amazon and its publisher's site which you can access by clicking here.

Required Hardware

- Access to a PC/Mac or mobile device capable of using Zoom
  - See notes on Zoom's hardware requirements by clicking here.

Required Software

- MySQL: Download here. [Detailed instructions are found on BeachBoard]
  - No product key is necessary. Detailed Installation instructions will be provided in BeachBoard.
- DataCamp:
  - Access by clicking here. A course with a product key has been ordered and will be made available once it goes live. There will be no costs for students associated with this.

Accessing Lectures and Lecture Notes

- PowerPoint slides:
  - PowerPoint slides and other class material corresponding to each week will be accessible through **BeachBoard** within the corresponding week's section under the **Content Tab**. You can also follow this link:
    - **https://bbcsulb.desire2learn.com/d2l/le/lessons/694298/units/8023816**

- Accessing Recorded Lectures:
  - Live lectures will be recorded and posted for you to review after each session. These will be available through **BeachBoard** within the corresponding week's section under the **Content Tab**. You can also follow this link:
    - **https://bbcsulb.desire2learn.com/d2l/le/lessons/694298/units/8023816**

BeachBoard Access

To access this course on BeachBoard you will need access to the Internet and a supported Web browser (Firefox is the recommended browser). You log in to BeachBoard with your CSULB Campus ID and BeachID password. Bookmark this link for future use, or you can always access it by going to CSULB's Homepage and clicking on the BeachBoard link at the top of the page.

Once logged in to BeachBoard, you will see the course listed in the My Courses widget on the right; click on the title to enter the course.

Grading

Late Work/Make-Up Policy

All assignments must be uploaded through the submission box in the course's page within BeachBoard at 11:59 PM (PDT Time) of the due date. Assignments submitted after the deadline will not be accepted.

Grading Policy

Your semester score will be automatically calculated using the weighted system below and you will receive the higher of the two scores:

Category	Percentage
Participation (Participation & Attendance)	5%
Labs I – X (2.5 each)	25%
Midterm Exam	25%
Final Exam	20%
Final Project	25%
Total	**100%**

Letter Grade	Percentage of Semester Grade Points
A	90%
B	80%
C	70%
F	<70%

These percentages represent the minimum percentage grade to receive a particular letter and the percentage grades will be rounded to the nearest hundredth point in making this calculation. For example, a student earning a 89.99% would earn a B while a student earning a 90.00% would receive an A.

Extra Credit

There are no extra credits assigned for this class. If a decision is made to include some form of extra credit later during the semester, the whole class will be informed and offered the same opportunity.

Attendance and Participation

Attendance and active participation in the class are expected. In-class quizzes will be used at the start of each session to test your attendance and preparation to participate in the class.

Problem Sets/Discussions

Problem Sets or Laboratory exercises will be offered most weeks as indicated in the calendar (for a total of 10 labs) except for holidays/university breaks or for weeks where there is a major assignment due (check schedule for specific dates). Labs are to be carried out during class time, and the final submission will be due at midnight PDT of the Friday of the corresponding week of class unless otherwise stated in the assignment's guidelines. Late work will not be accepted.

Midterm and Final Exams

There will be two exams. The first exam (midterm) will cover the material in sessions #1 through #6 (chapters 1, 2, 3, 4, and 8). The second exam (final) will cover the remaining sessions #7 through #16. Both exams will **be one (1) hour long**. Exams will be available during the regular start time of the class.

Group Project

A group project will be introduced on week 2 which will be due by Week 14 (see the schedule below for the specific date to present the project). The project is aimed at providing practical experience in the content of the course and will require the submission of a report in Dropbox within BeachBoard and a presentation. Peer evaluations will be required to assess student's responsibility to show and communicate the effort they have put into the project to their group members.

Course Format and Teaching Methodology

While we are at a distance, in this course we will meet face-to-face through Zoom regularly at the scheduled class time. The course consists of lectures, hands-on exercises, discussions, 2 exams and a group project. All students are expected to actively interact in the classroom both in online live meetings, and through the discussion board as the nature of the course requires us to engage each other to maximize the learning experience.
The learning methodology in this course consists of lectures, class discussion, homework

assignments, group work, presentations, and exams. **Therefore, the nature of this course requires active participation by students in order to maximize the learning experience for everyone**.

Workload

This is a 3-credit course, and we will meet 2 hours and 45 minutes every week. The College of Business at CSULB is AACSB accredited and requires faculty to design courses with a ratio of a minimum 2-3 hours of out-of-class to each in-class hour. Therefore, students should expect at least 3 hours for preparing for class every week.

Preparation and Participation

Students are expected to prepare for, attend, and participate in all class sessions. Attendance and participation will be monitored. Participation requires active contribution to class discussions and exercises. Disruptive behavior will have a negative impact on your participation grade.

Attendance Policy

Students are expected to attend classes regularly to create an effective learning environment that allows students to master the course and satisfy performance objectives and learning outcomes. Tardiness or absenting oneself in class will result in deductions to the participation portion of the grade.
Please turn off your cellphones or put them in silent mode while in class to avoid disruptions. Also remember to keep your microphone in the mute position unless you are actively participating to prevent background noises from interfering with the class.
In general, students will be excused from class due to military obligations, jury duty, religious days, illness, family emergencies and/or participation in other official university activities. Students who request such absences must complete missed course work and/or assignments missed during an approved absence. For more information on attendance and absences, please refer to the CSULB Attendance Policy - CSULB Attendance Policy Homepage.

Exam Policy

To give a consistent experience to all students while ensuring the reliability of exams in assessing students' outcomes, no exam may be taken "late". In the event of extraordinary circumstances that affect your capacity to take the exam, such as a medical emergency or an hospitalization or death in the family, you should inform the instructor and provide documentation to support our argument.

Students absent from an exam may request a makeup exam from the instructor which will be granted only if documented circumstances constitute an extraordinary circumstance as argued above and the student provides documentation to support her/his argument. Make up exams will not be granted automatically but will be considered on a case-by-case basis, considering all the relevant circumstances.

Communication with the Instructor

This course will be taught in conjunction with BeachBoard. Registered students will receive instructions, feedback, and grades through the BeachBoard interface (see the getting started section of our course site for details on how to access grades). BeachBoard will be the principal medium of communication.
Student-to-student communication will be enabled through the discussion forum where each student is expected to actively participate in the class by asking questions, answering other students'

questions if they know the answer, upvoting questions that they consider important to make it easier for the instructor to view and answer them, among other uses.

Regular updates to the class can be observed in the course's main page within the News and calendar widgets. Please use the instructors' CSU email address to reach out to him for course-related communication. Emails will be answered promptly but please allow up to 24 hours for a response. For further guidelines on maintaining communication in class, please visit the course page on Communication guidelines by clicking here.

Course Schedule

Week	Week Of	Topics	Readings	Notes and Assignments
1	Jan. 19th	1. Course Introductions 2. Syllabus Review 3. Lecture 1 – Introduction to Database Systems	Syllabus Chapter 1	N/A
2	Jan. 25th	Lecture 2 – Modeling Data in the Organization	Chapter 2	Lab 1 Due Install Draw.io
3	Feb. 1st	Lecture 3 – The Enhanced ER Model	Chapter 3	Lab 2 Due
4	Feb. 8th	Lecture 4 – Logical DB Design (1)	Chapter 4	Lab 3 Due
5	Feb. 15th	Lecture 5 – Logical DB Design (2)	Chapter 4	Lab 4 Due Install MySQL
6	Feb. 22nd	Lecture 6 – Physical DB Design	Chapter 8	Lab 5 Due Review of Project's Progress
7	March 1st	Lecture 7 – Introduction to SQL [REVIEW OF PROJECT Version 1]	Chapter 5	Lab 6 Due [DataCamp]
8	March 8th	**Midterm**	Chapters 1, 2, 3, 4, & 8	**[DUE] MIDTERM**
9	March 15th	Lecture 8 – Advanced SQL 1	Chapter 6	Lab 7 Due [DataCamp]
10	March 22nd	Lecture 9 – Advanced SQL 2	Chapter 6	Lab 8 Due
11	March 29th	Spring Recess (no classes)		
12	April 5th	Lecture 10 - Data Warehousing & Data Integration (1) [REVIEW OF PROJECT Version 2]	Chapter 9	
13	April 12th	Lecture 11 – Data Warehousing & Data Integration (2)	Chapter 9	Lab 9: SAP SAC
14	April 19th	Lecture 12 - Project Presentations		[REPORT & Group Presentations Due]
15	April 26th	Lecture 13 - Big Data Technologies (NoSQL Databases) (1)	Chapter 10	
16	May 3rd	Lecture 14 - Big Data Technologies (NoSQL Databases) (2) – Final Review	Chapter 10	Lab 10: NoSQL
17	**May 10th**	**Final Exam**		**[DUE] FINAL**

Note: Due dates represent due Times of 11:59 PM on the day discussed. For example, if due date is Sept. 25, the due time is 11:59 PM (PDT Time) of September the 25th.

General Policies, Assistance and Accommodations

Accessibility Policy

It is the policy of the CSU to make information technology resources and services accessible to all CSU students, faculty, staff and the general public regardless of disability. We are committed to provide equal access of information to all and deliver accessibility support to anyone that needs it. If you need any support, please let me know. You can get more information on our accessibility policy by clicking here.

Technical Assistance

If you need technical assistance at any time during the course or need to report a problem with BeachBoard, please contact the Technology Help Desk using their online form - AT Help Form Homepage or by phone at (562) 985-4959 or visit them on campus in the Horn Center or in the Library.

Individual Needs & Accommodations

The Bob Murphy Access Center (BMAC) provides certification for students with disabilities and helps arrange relevant accommodations: Bob Murphy Access Center. Any student requesting academic accommodations based on a disability is strongly encouraged to register with BMAC each semester. A letter of verification for approved accommodations can be obtained from BMAC. Please be sure to provide your instructor with BMAC verification of accommodations as early in the semester as possible. The phone number for BMAC is (562) 985 5401. The email address is: bmac@csulb.edu.

Plagiarism/Academic Integrity Policy

Work that you submit is assumed to be original unless your source material is documented appropriately, such as a Works Cited page. Using the ideas or words of another person, even a peer, or a web site, as if it were your own, is plagiarism. Students should read the section on cheating and plagiarism in the CSULB catalog - Cheating and Plagiarism Homepage

Evidence of academic dishonesty including cheating, plagiarizing and inappropriate collusion on exams will lead students to students receiving a 0 for the corresponding assignment and will be sanctioned to the extent possible based on CSULB policy as described above. Note that cheating includes use of smartphones and accessing notes and any other unauthorized book, papers, or device during quizzes and exams. Written work that you hand in is assumed to be original unless your source material is documented appropriately.

University Withdrawal Policy

Class withdrawals during the final three weeks of instruction are not permitted except for a very serious and compelling reason such as accident or serious injury that is clearly beyond the student's control and the assignment of an Incomplete grade is not practical (see Grades - CSULB Grading Homepage). Application for withdrawal from CSULB or from a class must be officially filed by the student with Enrollment Services whether the student has ever attended the class or not; otherwise, the student will receive a grade of "WU" (unauthorized withdrawal) in the course. Please refer to the CSULB Course Catalog - CSULB Grading Homepage for more detailed information.