**CS 31 DATABASE MANAGEMENT PROGRAMMING Fall 2020**

**INSTRUCTOR**: Steven Allbee ([sallbee@ivc.edu](mailto:sallbee@ivc.edu)) Office Hours: By appointment only through Zoom. Email me via Canvas or your IVC email only. I reserve the right to change the syllabus. Any changes to the syllabus will be announced in class.

This course introduces Database Concepts and programming. Topics include the principles of relational database design, modeling, and Standard Query Language (SQL) programming; normalization; implementation; database management; client/server systems; data warehousing; and the use of databases in the Internet.

**TEXTBOOK**

Murach's MySQL 3e, ISBN: 9781943872367

Not Required: Database Processing: Fundamentals, Design & Implementation 14e by Kroenke, ISBN: 9780133876703

I will also provide links to free resources on Canvas.

**REQUIRED SUPPLIES**

* MySQL and MySQL Workbench

**GRADING**

4 Exams – 50 pts each 150 points 382.5 and above A

(lowest exam dropped) 340 – 382.5 B

Lab Notebook 25 points 297.5 – 340 C

Homework 70 points 255 – 297.5 D

Project 80 points below 255 F

Final Exam 100 points

Total 425 points

**No make-up exams will be given**. As a result, your lowest exam score of the 4 exams will be dropped. **You are required to take the final exam. Late assignments will not be accepted for any reason.** Homework will be assigned and due weekly. Labs will be assigned weekly and submitted at the end of the semester on 12/3.

Computer related problems are never a valid excuse for not completing or submitting an assignment on time. Therefore, it is advisable to complete the assignmentsearly enough to account for any problems that may occur

It is the responsibility of the student to drop the class in a timely manner if they so choose.

Students who are still officially enrolled past the withdrawal deadline (65% point/Drop with a “W” Grade) and who have been excessively absent per the attendance policy may be assigned a FW grade. The FW counts the same as a F grade in the grade point average, but denotes you stopped attending class and did not fail due to lack of mastery of the course material. The FW grade may impact eligibility for some types of financial aid. See the Financial Aid Office for more information.

If you have a documented disability and require academic accommodations, please contact the DSPS office at 949-451-5630 or visit them in Room SSC 171. Please discuss your accommodations with me after class so I may be of assistance to you.

**ACADEMIC INTEGRITY**

As per the Irvine Valley College catalog, “Irvine Valley College actively promotes academic and institutional honesty.” Falsification, plagiarism, and cheating will not be tolerated. Any act of academic dishonesty will result in a zero for that assignment or exam for the first infraction. A second infraction will result in an automatic final grade of F for the course. **A grade of zero received for cheating CANNOT be replaced.** IVC picture ID will be checked during exams.

**STUDENT LEARNING OUTCOMES**

* Students will create SQL programs to query, manage, and access a database.
* Students will identify and create Entities, to Entity Relationship modelling.
* Students will identify anomalies of database tables and resolve the anomalies with the proper Normal Forms.

**TENTATIVE SCHEDULE**

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| **Date** | **Week** | **Topics** | **Assigned** |
| 8/20 | Week 1 | Intro DB theory | HW 1 |
| 8/27 | Week 2 | Intro SQL, MySQL Workbench | HW 2 |
| 9/3 | Week 3 | Functional Dependencies/Determinants | Lab 1, HW 3 |
| 9/10 | Week 4 | Relations/Keys/Constraints | HW 4, Exam 1 |
| 9/17 | Week 5 | Normalization I | Lab 2, HW 5 |
| 9/24 | Week 6 | Normalization II | Lab 3, HW 6 |
| 10/1 | Week 7 | ER Diagrams - Conceptual | Lab 4, HW 7, Exam 2 Part 1 |
| 10/8 | Week 8 | Cardinality | Lab 5, HW 8, Exam 2 Part 2 |
| 10/15 | Week 9 | Strong/Weak Entities | Lab 6, HW 9 |
| 10/22 | Week 10 | ER Diagrams - Logical | HW 10 |
| 10/29 | Week 11 | Data Definition Language | HW 11, Group Project |
| 11/5 | Week 12 | Functions | HW 12, Exam 3 |
| 11/12 | Week 13 | Transactions/Concurrency | HW 13 |
| 11/19 | Week 14 | DB Applications/Views | Lab 7, HW 14 |
| 11/28 | Classes Not in Session | | |
| 12/3 | Week 15 | Review | Exam 4 |
| 12/10 | Week 16 | Finals Week | Final Exam |