# CGS 2545 Database Management

**Spring 2025 (202520) FULL Term**

**Jan 06 – Apr 27, 2025**

Professor: **Maged** Abdelrazek

Office location: Building 2 – Room 313.

Phone number: (407) 582 - 2172.

Email: mabdelrazek@valenciacollege.edu

Meeting location: Online

CRN: 22007 – 22010 - 24061. Credit: 3 credit hours.

**Student Engagement Hours:** *Please email me at least 24 hours prior to scheduling a zoom meeting.*

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| **Day** | **Time and Location** |
| Monday | Online – 04:30 to 6:30 pm |
| Tuesday | Online – 12:00 to 2:00 pm |
| Wednesday | Office – 02:30 to 6:30 pm |
| Thursday | Online – 11:00 to 2:00 pm |
| Friday | Online – 08:00 to 09:00 am |

**COURSE** **DESCRIPTION**:

Principles of database systems, architecture of database management systems, relational model conceptual design and requirement analysis, database design and normalization, query languages, multi-user and distributed database issues; practical use of a DBMS and building of database application. (Special Fee $70)

**COURSE OUTCOMES:**

Specifically, this final course will enable students to:

Design a data model to reflect the data requirements given a specific business scenario

**Corresponding Evidence of Learning:**

* Model the data requirements for sample business problems using an industry recognized model diagram.
* Identify business rules and explain the importance of documenting these rules in database design.
* Identify and represent constraints in database design.
* Construct logical data structures to implement normalization techniques.

**Corresponding Evidence of Learning**

* Transform data models into a logical design that can be implemented in a relational database.
* Describe foreign keys and referential integrity constraints.
* Define the requirements for a table to be considered a relation.
* Define the relationship between functional dependencies and problems that develop when the database is implemented.
* Implement a database design using a database management system.

**Corresponding Evidence of Learning**

* Use current Database Management software to create a relational database.
* Use Structured Query Language (SQL) to retrieve data from a database.

**EDUCATIONAL MATERIALS**:

**eBook** - DATABASE SYSTEMS - 014 Edition (Required)

ISBN: 9780357673034

Publisher: Cengage.

See instructions in Canvas Announcement on how to download and install **MySQL & Workbench** software on your personal computer (***REQUIRED***)

**ASSESSMENT METHODS AND EVALUATION:**

This course is structured in Four Learning Modules:

Data Models – the first phase in design.

Data Structures – taking the models to logical and normalized structures.

Database Design – using the structured and normalized forms to create a functional database.

DDL, DML, and DCL

**Calculation of Final Grade:**

 10 pts Discussion

 80 pts Quizzes

 350 pts Activities

 760 pts Problems

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1200 pts

A 90 - 100.00% 1080 - 1200 points

B 80 - 89.99% 960 - 1079 points

C 70 - 79.99% 840 - 959 points

D 60 - 69.99% 720 - 839 points

F 0 - 59.99% 00 - 719 points

Each homework assignment, test, quiz, lab, or other assignment will have a point value attached. Your grade will be based on how many points you earn versus how many points are available. To calculate your grade at any time, use the Grades tool in Canvas and simply add your earned points. Then divide by the total available points and multiply by 100. Compare the resulting number to the above table to determine your grade.

**Homework and Tests**:

* Homework must be submitted on time.
* Homework due dates and times for the entire semester are posted on Canvas and your syllabus.
* All assignments are subject to a 10% grade reduction if submitted 72 hours past the due date, after that 50% grade reduction.
* Late assignments will not be accepted during the last week.

One thing to remember about homework is ‘don’t get behind’. The importance of homework cannot be stressed enough. If you are having difficulty, **please contact me or better post on the Discussion Board**. It is important to me that all of you succeed in this class.

**Course Requirements:**

* Read all text assignments.
* Submit all assignments in a timely manner via Canvas.
* Complete quizzes and assignments by the announced deadlines.
* Maintain electronic files of all work submitted.

**No-Show Policy**

Just logging into the course does NOT count as attendance, sending an e-mail to the instructor regardless of the content does NOT count as attendance.

Any ONE of these is acceptable to avoid being No Showed:

1. Submit an online assignment.
2. Participate in an online discussion about academic matters.

CLASSROOM POLICIES ON RECORDING LECTURES:

Students may record video and/or audio of class lectures for their personal use. Recordings may be a useful tool to support your learning and provide a resource for review. It is important to be respectful of your peers’ rights to privacy; with that in mind, please refrain from recording your peers during lectures. You may not record class discussions, student presentations, labs, group work, and private conversations. Further, you may not publish or share recordings without my written consent, nor may you provide recordings to classmates as a substitution for class participation and attendance. If necessary, I will handle violations of this section through the College’s Student Code of Conduct.

# WITHDRAWAL:

If you are considering withdrawing from this course, please contact me to discuss your circumstances, and how I can support your academic progress. To better understand the implications of how withdrawal will impact you academically and financially, I recommend that you contact your advisor (student success coach), as you consider withdrawal.

It is important to note that only you can withdraw yourself from this course; per college policy, professors and deans cannot withdraw students from a course.  The deadline for student-initiated withdrawal is <https://valenciacollege.edu/academics/calendar/documents/2024-2025-important-dates-calendar.pdf>.

Students failing to withdraw by this deadline will receive the grade earned, which will be calculated according to the grading criteria outlined in the course. Students must consult the academic calendar and adhere strictly to these deadlines.

Please keep in mind that I am responsible for reporting no-show attendance, at the beginning of each term, if students fail to attend during the no-show reporting period. The no-show reporting deadline for this term is <https://valenciacollege.edu/academics/calendar/documents/2024-2025-important-dates-calendar.pdf>.

# NOTE TO INTERNATIONAL STUDENTS (F-1 OR J-1 VISA):

Please be advised that withdrawal from this course due to attendance may result in the termination of your visa status if you fall below the full-time enrollment requirement of 12 credit hours. Consult the International Student Services office for more information.

**\*\*\*\* Continue the Next Page \*\*\*\***

**IMPORTANT DATES:** 

**STANDARDS OF CLASSROOM CONDUCT:**

Valencia College is dedicated to the advancement of knowledge and learning and to the development of responsible personal and social conduct. By enrolling at Valencia College, a student assumes the responsibility for becoming familiar with and abiding by the general rules of conduct as listed in 6Hx28: 8-03 and the Student Handbook. Even though Faculty manage the classroom environment, the primary responsibility for maintaining a respectful and civil learning environment rests with the students. Students who violate the [Student Code of Conduct](https://valenciacollege.edu/students/conduct/index.php) may be referred to the Dean of Student's Office for disciplinary action, which may result in a sanction up to and including expulsion.

As a registered student in this class, you assume the responsibility for conducting yourself in a manner that contributes positively to Valencia’s learning community as described in the Student Code of Conduct. My role as an instructor is to facilitate academic discussions and promote critical thinking about sometimes challenging and uncomfortable facts and ideas. Your peers and instructor may share diverse ideas and viewpoints, or we may differ in our ideas and viewpoints, but we will always be respectful of other opinions as provided by the law and as expected in an academic environment. No lesson is intended to espouse, promote, advance, inculcate, compel a particular feeling, perception, viewpoint, or belief in a concept. Concepts as presented are not endorsed by the instructor but are presented as part of the larger course of instruction. Should a student feel uncomfortable with how course content is presented or discussed, please contact the instructor for further conversation.

**ACADEMIC HONESTY:**

Each student is required to follow Valencia policy regarding academic honesty. All work submitted by students is expected to be the result of the student’s individual thoughts, research, and self-expression unless the assignment specifically states “group project.” Any act of academic dishonesty will be handled in accordance with Valencia policy as set forth in the

Student Handbook and Catalog.

**COLLEGE POLICIES:** A full description of all College policies can be found in the [College Catalog](https://valenciacollege.edu/STUDENTS/catalog/index.php/). [Policy Manual](https://valenciacollege.edu/about/general-counsel/policy/), and the [Student Handbook](https://valenciacollege.edu/students/student-services/documents/student-handbook.pdf).

**STUDENT ASSISTANCE PROGRAM:**

Valencia College is interested in making sure all our students have a rewarding and successful college experience. To that purpose, Valencia students can get immediate help with issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home, or work. BayCare Behavioral Health Student Assistance Program (SAP) services are free to all Valencia students and available 24 hours a day by calling (800) 878-5470. Free face-to-face counseling is also available.

**OFFICE OF STUDENTS WITH DISABILITIES INFORMATION:**

Students with disabilities who qualify for academic accommodations must provide a Notification to Instructor (NTI) form from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodation based on appropriate documentation of disabilities.

East Campus Bldg. 5, Rm. 216 Ph: 407-582-2229 Fax: 407-582-8908 TTY: 407-582-1222

West Campus SSB, Rm. 102 Ph: 407-582-1523 Fax: 407-582-1326 TTY: 407-582-1222

Osceola Campus Bldg. 1, Rm. 140A Ph: 407-582-4167 Fax: 407-582-4804 TTY: 407-582-1222

Winter Park Campus Bldg. 1, Rm. 212 Ph: 407-582-6887 Fax: 407-582-6841 TTY: 407-582-1222

**DISCLAIMER:**

This syllabus is an agreement between the student and the instructor. By enrolling in and then attending this course, the student agrees to and accepts the terms and conditions of this agreement. It is the responsibility of the student to carefully read this syllabus/agreement in its entirety and to adhere to all policies and procedures within the syllabus.

Please retain a copy of this syllabus for your records.

Changes may be made at the discretion of the instructor.

**SCHEDULE OF CLASSES AND ASSIGNMENTS:**

**Due Date: All assignments are due on Sunday 11:59 P.M**

**Except Week 16 Due on Friday, April 25.**

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| Week  | **Modules on Canvas and Textbook** |
| 01 - January 06 | Introduction & IDE Installation |
| 02 - January 13 | Chapter 01 – Database Systems |
| 03 - January 20 | Chapter 02 - Data Models |
| 04 - January 27 | Chapter 03 - The Relational Database Model |
| 05 - February 03 | Chapter 04 – Entity Relationship Modeling |
| 06 - February 10 | Chapter 07 – Introduction to SQL |
| 07 - February 17 | Chapter 07 – Introduction to SQL … Continue |
| 08 - February 24 | Chapter 07 – Introduction to SQL … Continue |
| 09 - March 03 | Chapter 07 – Introduction to SQL … Continue |
| 10 - March 10 | Chapter 07 – Introduction to SQL … Continue |
| 11 - March 17 | Spring Break |
| 12 - March 24 | Chapter 07 – Introduction to SQL … Continue |
| 13 - March 31 | Chapter 07 – Introduction to SQL … Continue |
| 14 - April 07 | Chapter 07 – Introduction to SQL … Continue |
| 15 - April 14 | Chapter 08 – Advanced SQL |
| 16 - April 21 | Chapter 08 – Advanced SQL … Continue |