

Course Information

Semester & Year: Fall 2024

Course Title: MySQL Database

Course Prefix & Number: CIS276DA

Section Number: 11981

Credit Hours: 3.0

Start Date: September 5, 2024

End Date: **December 13, 2024**

Room Number: CM 447

Meeting Days: Thursdays

Meeting Times: **6:00 PM – 8:30 PM**

Course Format

The course format for this course is Hybrid.

Instructor Information

Instructor: **Dr. Sean Geraghty**

Email: <u>sean.geraghty@scottsdalecc.edu</u> or Canvas Message (preferred)

Phone: **480-423-6257** (CIS Department)

Office Location: CM Building, Office CM-408

Online: Sean Geraghty's Virtual Room – CIS276DA

Office Hours: Mon, Tue, Wed, Fri 9:00 am - 10:00 am; Thu 5:00 pm - 6:00 pm

CIS Study Lab: CM Building, Room CM-446

Lab Hours: **Mon, Tue, Wed 2:00 pm – 3:00 pm**

Course Description

A broad overview of the MySQL database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install MySQL, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies.

Prerequisites

CIS105 or permission of instructor

Course Competencies

The objective of this course is to introduce the fundamental concepts, terminology, and major application of relational database systems.

- 1. Demonstrate an understanding of data analysis involved in relational databases. (I)
- 2. Develop an Entity Relationship Diagram (ERD) to optimize a database's design (I)
- 3. Demonstrate an understanding of database server installation and configuration (III)
- 4. Demonstrate the ability to use SQL and the client interface tools. (III, IV, V)
- 5. Use server-side scripting languages to access a relational database for dynamic content presentation. (III, IV, V)
- 6. Demonstrate the ability to add/manage users and authentication. (IV)
- 7. Create database objects. (V)
- 8. Create a new SQL database. (VI)
- 9. Implement a backup/restore strategy. (VI)

Texts and Course Materials

Murach's MySQL 4th Edition, Murach, Joel; Mike Murach and Associates, 2023. ISBN-13: 978-1943873104. You can acquire either the paperback or an eBook (or both).

Course Technologies

View the <u>Accessibility Statements & Privacy Policies</u> of technologies used in this course.

Maricopa Systems

This course uses key Maricopa systems for course management and communication.

- Canvas Learning Management System
- Student Maricopa Gmail Account

Synchronous Communication Tools

This course will occasionally make use of web conferencing and/or other synchronous course tools.

- Big Blue Button (virtual office)
- Google Meet

Student Assignment Tools

This course requires students to participate in or submit assignments using desktop or cloud-based applications.

- VMWare
- mySCC (Mac users)

Course Policies

The following are policies specific to this course. Students are also responsible for the college policies included on the <u>Student Regulations</u> page of the Maricopa Community College District website.

- All assignments MUST be submitted by the published DUE DATES.
- You MUST complete this class by the course end date of December 13, 2024.

Generative Artificial Intelligence (AI) Policy

Opening Statement Regarding Generative Artificial Intelligence (AI)

The World Economic Forum defines generative AI as "a category of artificial intelligence (AI) algorithms that generate new outputs based on the data they have been trained on. Unlike traditional AI systems that are designed to recognize patterns and make predictions, generative AI creates new content in the form of images, text, audio, and more."

Some examples of generative AI tools include but are not limited to: ChatGPT, Google Bard, Microsoft Copilot, Stable Diffusion, GrammarlyGo, and Adobe Firefly.

No Generative Artificial Intelligence (AI) Allowed

In this class, all work submitted must be your own. The use of generative AI tools will be considered academic misconduct (see Administrative Regulation 2.3.11 1.B(b)) and will be treated as such. If you are unsure if the tool or website you are using is a generative AI tool, please contact the instructor for further clarification before using the tool or website.

Grading Standards & Practices

Assignments

Assignment Name	Percent of Grade
Assignments	40%
Quizzes	30%
Midterm Exam	10%
Semester Project	20%
TOTAL:	100%

Final grades are based on the following scale:

Grade Scale

Letter Grade	Percentage Range
Α	90 – 100%
В	80 – 89%
С	70 – 79%
D	60 – 69%
F	0 – 59%

Weekly Communications

Each academic week I will post a Canvas announcement that will contain important information regarding the material covered that week and important exam notifications.

Late Assignments

- Every assignment and quiz will have a due date, and each assignment builds upon the last.
- Assignments and quizzes turned in beyond that time frame will receive a 0.
- The midterm and final exams must be turned in by the due date.
- Late submissions will not be accepted.

Grading Feedback and Response Time

- Students are encouraged to ask questions, via Canvas message or e-mail (your Maricopa Gmail account) as they work through assignments.
- Students can expect an e-mail/Canvas message response in 24 to 48 hours, Monday through Saturday.
- It is your responsibility to monitor your grades in Canvas. All assignments will be submitted through Canvas. Your grade and feedback can be reviewed in Canvas.
- Students can expect assignments to be graded within 1 week of the due date.

Academic Conduct and Honesty

In addition to the general college Academic Honesty policy stated in the Canvas course under the Course and College Policies section, the following additional polices apply to this course:

The highest standards of academic integrity are expected of all students. The failure of any student to meet these standards may result in suspension or expulsion from the College or other sanctions as specified in the Scottsdale Community College Academic Integrity Policy. Violations of academic integrity include, but are not limited to, cheating, fabrication, tampering, plagiarism or facilitating such activities. Specific examples of academic misconduct relating to this course include:

- Copying another student's work and turning it in as one's own.
- Submitting another student's file as your own.
- Working jointly on an assignment, with each student turning in a copy of the joint product, creating the impression that each student completed the work independently.

Each student must complete his/her own work on his/her own computer with his/her own data files. If you are caught turning in another student's work, both students will receive a zero and may be withdrawn for academic misconduct from the class with a grade of 'Y'. Cheating on an exam will result in immediate withdrawal for academic misconduct from the course with a grade of 'Y'.

Attendance Policy

Attendance is required. In accordance with state law, attendance will be taken during each class. If you are absent, arrive late for class, or leave early, you are responsible for ALL material covered during that class meeting. After 3 absences (excused or unexcused), you may be withdrawn from the class. If you decide to drop this class, you must submit a Withdrawal Form to officially withdraw.

Withdrawal Policy

In addition to the general college Withdraw policy, the following additional withdraw polices apply to this course:

- Students must participate in this online course within the **first three (3) days** of the start date or they will be withdrawn.
- Students who do not participate for two (2) weeks consecutively or for one (1) week consecutively during an 8-week course will be withdrawn for attendance. Participation is defined as follows:
 - Submitting homework on or before due dates
 - o Participating in discussions/critiques over the course of a due date
 - Completing exams/quizzes on or before due dates
 - Just logging into the Canvas course does NOT count as participation
- The official date of withdrawal is the last date of attendance as determined by the student's withdrawal or as reported by the instructor. The official date of withdrawal will determine the degree of refund, if any. See Refund Policy in the 2023-2024 College Catalog.
- The last date to request a withdrawal from your instructor in this course is: Monday,
 November 25, 2024

Instructional Contact Hours (Seat Time)

This is a three (3) credit-hour course. Plan to spend at least three hours on course content or seat time (direct instruction) and six hours on homework weekly.

CIS Study Lab

We urge CIS students to utilize the **CIS Study Lab in CM 446**. This lab is used for hands-on classwork and is staffed with CIS instructors. Any SCC student currently enrolled in a CIS course may use this lab. A detailed lab schedule with instructor-assigned times and locations is posted in your Canvas course.

For **Fall 2024**, the CIS Study Lab provides both in-person and virtual hours. Please check the <u>current schedule</u> for times and locations.

Online Tutoring

NOTE: It is highly recommended that you utilize our CIS Study Lab (see above section) because SCC CIS instructors are more familiar with your coursework, instructor expectations, and assignments.

However, if you need to work with a tutor outside regular hours, online and hybrid students now have access to a 24/7 online tutoring service called Brainfuse. Brainfuse provides online tutoring in a variety of academic subjects. Each student may utilize up to 6 hours of online tutoring through Brainfuse per semester, and has the option of requesting additional time if needed.

To access Brainfuse and begin working with a tutor:

- Visit the <u>SCC Online Tutoring Services Through Brainfuse</u> page (https://www.scottsdalecc.edu/students/tutoring/online-tutoring)
- 2. Click the **Visit a tutor online** button
- 3. Enter your MEID and password
- 4. Choose your topic and subject
- 5. Click the **Connect** button

Please use your time effectively and be prepared with your questions before you connect to a tutor. Tutors and students communicate in real-time so whatever you type, draw, or share on the screen, the tutor sees, and vice versa. You may also want to have screenshots ready if applicable. All Brainfuse sessions are recorded for review later.

SCC Land Acknowledgement

Scottsdale Community College (SCC) credits the diverse Indigenous people still connected to the land on which we gather. Our college resides on the tribal territory of the Salt River Pima-Maricopa Indian Community (SRP-MIC). SRP-MIC is a federally recognized nation - one of 22 Arizona Indigenous nations and one of 574 across the United States. Attached to this physical space is a painful history of forced removal and the resulting intentional genocide of its Indigenous people. We remain appreciative of our ability to teach, learn and serve in a space of such importance and reverence. SCC acknowledges the land on which we are situated today as the traditional land and home, established by Executive Order on June 14, 1879, of two distinct tribal nations: the Onk Akimel O'odham (Pima) and the Xalychidom Piipaash (Maricopa) people. We take this opportunity to thank the original caretakers of this land. We offer our respect to their Elders and to all O'odham and Piipaash people of the past, present and future.

CIS 276DA, Section 11981 - Fall 2084 Course Outline

Week #	Date	Topic(s)
1	Sep 5	Class Preparation, Intro to MySQL
2	Sep 12	Using the SELECT, WHERE, and ORDER BY Clauses
3	Sep 19	Table Joins and Summary Scripts
4	Sep 26	Action Scripts and Subqueries
5	Oct 3	Using Scaler Functions
6	Oct 10	Database Design
7	Oct 17	Table Scripting
8	Oct 24	Midterm Exam / Scripting Views
9	Oct 31	Programming Basics
10	Nov 7	Stored Procedures and User-Defined Functions
11	Nov 14	Triggers and Events
12	Nov 21	Database Administration
13	Nov 28	*** Thanksgiving Holiday – No Class ***
14	Dec 5	MySQL and PHP
15	Dec 12	Semester Project Presentations

Students are responsible for the information contained in this syllabus, the Syllabus page in your Canvas course and the **College Policies & Student Services** page found in the First Steps module of your Canvas course. Students will be notified by the instructor of any changes in course requirements or policies.