

CEIS236

# Course Syllabus

## Course Information

### Course Title:

Database Systems and Programming Fundamentals

### Course Number:

CEIS236

### Course Description:

This course explores universal aspects of database systems that are common across programming languages, operating systems, or application types. Systems reviewed range from personal device and desktop databases to large-scale, distributed database servers. Classic relational databases to modern data warehouses are presented. Topics covered are library creation, primary key selection, column identification, defining relationships, normalization, data indexing and storage, and query languages. Students code and execute programs and routines that create, insert, update, and delete data

### Course Prerequisites:

CEIS110 or CIS363B

## Your Instructor



**Richard Hill**

Richard.Hill@DeVry.edu

I'm a Senior Systems Programmer and live in Columbus, Ohio. I've been a software dev




since 2010, creating new web-based software applications, supporting existing custom-built software applications, and supporting/customizing our licensed 3rd party software. I have been teaching at DeVry University as a visiting professor since March 2019.

I first started programming in the 80's on a Commodore Vic20 in the BASIC programming language. I took classes in BASIC, Fortran and COBOL in high school. At that time, I did not pursue a career in programming. Over the years I did learn PHP, MySQL,, built database-driven websites and learned about web hosting. Eventually I went back to college to get a degree in Computer Information Systems which led to a new career path and brought to where I am today.

**Send (<mailto:Richard.Hill@devry.edu>)  
an  
Email**

## Course Materials

The course materials in this course are from Wiley zyBooks. You will find links incorporated throughout the course to the appropriate sections of these materials for the various readings and activities. These interactive materials will be available to you starting in Week 1 of the course.

## Course Objectives

- 1 Develop an entity relationship diagram.
- 2 Explain the process of normalizing a database.
- 3 Create a physical database from a logical model.
- 4 Design queries to retrieve requested data using SQL.
- Modify a database structure using SQL statements.



5

Evaluate security requirements for a database.

7

Produce a database including simple and complex reports based on queries.

## Course Schedule

[▼ Expand All](#)[^ Collapse All](#)

### Module 1

#### Module and Topics

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Module 1

COs 1 and 2

Introduction to Databases

#### Activities and Assignments

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Knowledge Checks

Participation and Engagement

Active Reading

### Module 2

#### Module and Topics

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Module 2

COs 1 and 2

Introduction to SQL



## Activities and Assignments

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Knowledge Checks

Participation and Engagement

Active Reading

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## Module 3

### Module and Topics

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Module 3

COs 3 and 7

Queries

### Activities and Assignments

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Knowledge Checks

Participation and Engagement

Active Reading

---

## Module 4

### Module and Topics

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Module 4

COs 4 and 7

Entity Relationship Diagrams and Normalization

### Activities and Assignments

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Knowledge Checks

Participation and Engagement

Active Reading

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## Module 5

### Module and Topics

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Module 5

COs 4 and 7

Multi-table Queries

### Activities and Assignments

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Knowledge Checks

Participation and Engagement

Active Reading

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## Module 6

### Module and Topics

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Module 6

COs 4, 5, and 7

Aggregate Functions, Subqueries, and Advanced Options

### Activities and Assignments

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Knowledge Checks



Participation and Engagement

Active Reading

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## Module 7

### Module and Topics

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Module 7

CO 6

Database Administration, Security, Views, and Careers

### Activities and Assignments

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Knowledge Checks

Participation and Engagement

Project

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## Module 8

### Module and Topics

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Module 8

All COs

### Activities and Assignments

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Project

# Assignment Schedule



**Date****Assignment****[Module 7: Final Project Instructions \(due Module 8\)](#)****<https://devryu.instructure.com/courses/122757/assignments/3930075>**

Sun May 11, 2025

11:59 pm

**[Module 1 Active Reading](#)****<https://devryu.instructure.com/courses/122757/assignments/3930006>****[Week 1: Course Objectives](#)****<https://devryu.instructure.com/courses/122757/assignments/3929818>****[Module 1: Discussions](#)****<https://devryu.instructure.com/courses/122757/assignments/3929812>****[Module 1: Knowledge Check](#)****<https://devryu.instructure.com/courses/122757/assignments/3929714>**

Sun May 18, 2025

11:59 pm

**[Module 2 Active Reading](#)****<https://devryu.instructure.com/courses/122757/assignments/3930017>****[Module 2: Discussions](#)****<https://devryu.instructure.com/courses/122757/assignments/3929805>****[Module 2: Knowledge Check](#)****<https://devryu.instructure.com/courses/122757/assignments/3929730>**

Sun May 25, 2025

11:59 pm

**[Module 3 Active Reading](#)****<https://devryu.instructure.com/courses/122757/assignments/3930030>****[Module 3: Discussions](#)****<https://devryu.instructure.com/courses/122757/assignments/3929797>****[Module 3: Knowledge Check](#)****<https://devryu.instructure.com/courses/122757/assignments/3929699>**

Sun Jun 1, 2025

11:59 pm

**[ERD submission](#)****<https://devryu.instructure.com/courses/122757/assignments/3930001>****[Module 4 Active Reading](#)****<https://devryu.instructure.com/courses/122757/assignments/3930043>****[Module 4: Discussions](#)****<https://devryu.instructure.com/courses/122757/assignments/3929789>**

Date	Assignment
	<a href="#"><u>Module 4: Knowledge Check</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929623"><u>(https://devryu.instructure.com/courses/122757/assignments/3929623)</u></a>
Sun Jun 8, 2025 11:59 pm	<a href="#"><u>Module 5 Active Reading</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3930054"><u>(https://devryu.instructure.com/courses/122757/assignments/3930054)</u></a>
	<a href="#"><u>Module 5: Discussions</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929779"><u>(https://devryu.instructure.com/courses/122757/assignments/3929779)</u></a>
	<a href="#"><u>Module 5: Knowledge Check</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929674"><u>(https://devryu.instructure.com/courses/122757/assignments/3929674)</u></a>
Sun Jun 15, 2025 11:59 pm	<a href="#"><u>Module 6 Active Reading</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3930063"><u>(https://devryu.instructure.com/courses/122757/assignments/3930063)</u></a>
	<a href="#"><u>Module 6: Discussions</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929769"><u>(https://devryu.instructure.com/courses/122757/assignments/3929769)</u></a>
	<a href="#"><u>Module 6: Knowledge Check</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929637"><u>(https://devryu.instructure.com/courses/122757/assignments/3929637)</u></a>
Sun Jun 22, 2025 11:59 pm	<a href="#"><u>Module 7: Discussions</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929755"><u>(https://devryu.instructure.com/courses/122757/assignments/3929755)</u></a>
	<a href="#"><u>Module 7 - Lesson 3: Knowledge Check</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929609"><u>(https://devryu.instructure.com/courses/122757/assignments/3929609)</u></a>
	<a href="#"><u>Module 7 - Lesson 1: Knowledge Check</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929652"><u>(https://devryu.instructure.com/courses/122757/assignments/3929652)</u></a>
	<a href="#"><u>Module 7 - Lesson 2: Knowledge Check</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3929742"><u>(https://devryu.instructure.com/courses/122757/assignments/3929742)</u></a>
Sat Jun 28, 2025 11:59 pm	<a href="#"><u>Module 8: Final Course Project</u></a> <a href="https://devryu.instructure.com/courses/122757/assignments/3930084"><u>(https://devryu.instructure.com/courses/122757/assignments/3930084)</u></a>

## Assignment Values & Grades





The maximum score in this class is 1,000 points. The categories, which contribute to your final grade, are weighted as follows.

Assignment	Points	Weight
<b>Knowledge Checks</b> (40 points, Modules 1-6, 105 points Module 7)	345	34.5%
<b>Active Reading</b> (70 points, Modules 1-6)	420	42.0%
<b>Module 4 Design project (Module 4)</b>	20	2%
<b>Participation and Engagement (Discussions)</b> (15 points, Modules 1-6; 30 points Group Discussion Module 7)	120	12%
<b>Project</b> (95 Points Module 7-8)	95	9.5%
<b>Total</b>	<b>1000</b>	<b>100%</b>

All of your course requirements are graded using points. At the end of the course, the points are converted to a letter grade using the scale in the table below.

Final grades are based on the percentage equivalent in the chart below and are not rounded to the next higher letter grade.

Grade	Points	Percentage
A	900 - 1,000	90% - 100%
B	800 - 899	80% - 89.9%
<b>Total</b>	<b>1000</b>	<b>100%</b>



Grade	Points	Percentage
C	700 - 799	70% - 79.9%
D	600 - 699	60% - 69.9%
F	599 and below	Below 60%
Total	1000	100%

## Assignment & Exam Due Date Policy

All assignments, quizzes, and exams are to be completed per the schedule indicated by your instructor.

## University Policies and Procedures

Please review the University Policies by accessing the Student Handbook and the Discussion Guidelines for DeVry University or Keller Graduate School of Management.

DeVry University is committed to creating learning environments that are inclusive to all students. If you are experiencing disability-related barriers to learning in your courses, the Office of Student Disability Services (OSDS) is the office that collaborates with students to explore reasonable accommodations.

- If you are registered with the OSDS, the OSDS will notify your professor about your approved accommodation(s). However, you may reach out to your professor to discuss how each accommodation will be implemented in this course.
- If you are not registered with the OSDS and are experiencing disability-related barriers, you can contact the OSDS to discuss accommodations and/or resources.

OSDS Email: [ADA@devry.edu \(mailto:ada@devry.edu\)](mailto:ada@devry.edu)

OSDS Webpage: [Office of Student Disability Services \(https://www.devry.edu/students/disability-services.html\)](https://www.devry.edu/students/disability-services.html)



DeVry University supports you in pursuing your academic goals free from harassment, discrimination, violence, or retaliation based on sex. DeVry does not tolerate discrimination or harassment (including sexual assault, dating and domestic violence, and stalking) based on protected characteristics (sex, gender identity, sexual orientation, pregnancy, etc.) or related retaliation. If you should experience sex-based discrimination, harassment, violence, or retaliation, please contact DeVry's Title IX office to make a report or to understand your options.

Title IX also protects students who are pregnant or need assistance for pregnancy related conditions. If you are pregnant, please contact the Title IX office for assistance, resources, and to understand your rights.

For assistance or more information contact:

Title IX Office: [TitleIX@devry.edu \(mailto:titleix@devry.edu\)](mailto:titleix@devry.edu)

Title IX Webpage: [Title IX Information \(https://www.devry.edu/compliance/title-ix-information.html\)](https://www.devry.edu/compliance/title-ix-information.html)

# Netiquette Guidelines

## Netiquette Guidelines for Online Discussions

1. Discussions are an important part of your course. Be sure to participate in the discussions according to the guidelines set by your professor.
2. When being asked to do research, be sure to cite your sources! If your contribution to the conversation includes the material from others, e.g., books, newspaper, magazine, or journal articles, online or in print. They must be given proper attribution in APA style, including direct quotes and paraphrasing. Visit the DeVry University Library for more information on APA style.
3. Follow the 80/20 rule when posting in discussion that require some research. 80 percent of your post should be your own thoughts and 20 percent from your source.
4. Instead of posting "I agree," or similar, statements, expand your thoughts by providing examples, concepts, and experiences on the topic being discussed.
5. If you have any technical issues, be sure to reach out to your professor right away and let them know your issue. Contact the DeVry University Help Desk which is available 24/7.



6. Remember that writing in the discussions is not the same as texting. Your writings should be professional in nature, similar to what you would write at your place of work. Please refrain from emojis, LOL, BTW, etc.
7. Respect others by using polite language, avoiding offensive remarks, and acknowledging different viewpoints in online discussions. Treat others with kindness and consideration, just as you would in a face-to-face conversation.
8. Avoid using bold or highlighted works excessively, as it can come across as shouting or aggressive. Use emphasis minimally and only when necessary to clarify a point, rather than to overpower the conversation.
9. When agreeing or disagreeing in online posts, express your thoughts respectfully and constructively. Support your opinions with reasons or evidence, and avoid personal attacks or hostile language, even if you strongly disagree.
10. Post that include phrases such as "posting for attendance", "I'll come back later and post a real response", or just a blank post in general will not count for engagement, attendance, or quality. Posts like these cannot receive points or engagement/attendance.

### **Rules for participating in Live Lessons\***

1. Find a quiet spot to attend class.
2. Come to class on time, prepared and ready to participate. Enter the classroom and mute your microphone.
3. Actively participate! Respond to the questions and feel free to ask any questions you may have when the professor has indicated the period for questions.
4. If your camera is on, be mindful of people who may be around you. Make sure there is no background noise, such as TV or radio noise, don't attend while driving and don't walk around with the camera. If you need to leave the room, or tend to your children, turn your camera and microphone off.
5. Have a semi-professional, not too casual demeanor, including attire. Wear what you would wear to an actual classroom.

\*Professor Teresa Hayes presentation 2022 *Best Practices for Joining a Remote Learning Environment* contributed to these guidelines

## **Late Work Guidelines**



Late work may be submitted only with approval from the instructor based on communication from the student in advance or as close as possible to the assignment due date.

Instructors may deviate from these guidelines based on the student's individual circumstances; with the ideal goal being to foster a high-quality educational experience coupled with exceptional student care.

To further promote academic growth and related leadership skills, students are encouraged to communicate as early as possible when events arise that may cause a student to miss an assignment due date.

Type of Assignment	Late Submission Guidelines
Discussion Post	Due to the nature and mechanics of these weekly assignments, discussion posts are not eligible for late submission; however, given extenuating circumstances, students may be allowed to complete an alternative assignment with a 10% grade deduction.
Individual assignment (paper, project, etc.)	May be submitted up to two weeks late with prior approval. Professor has the discretion to deduct 10% depending upon the circumstances. Late work may not be submitted for credit after the scheduled end of the session without an approved incomplete or specific approval by the instructor.
Team-based assignment	Subject to arrangements with other team members. Because other members may need to do the work for the missed assignment, penalties may include assignment of additional work on future deliverables, point deductions on peer reviews, etc.
"Live" presentations	Individual presentations may be rescheduled with prior approval from instructor based on the student's circumstances and the assignment requirements. Rescheduled presentations are to conditions and penalties specified for individual assignment



	Individual contributions to a team presentation may not be rescheduled or submitted late. At instructor's discretion, student materials for that portion of the presentation may be submitted with a 10% grade deduction.
Auto-graded work done in third-party systems (Cengage, ALEKS, etc).	For assignments assigned through third-party technologies, prior approval from instructor is required for late submissions to be accepted and will be subject to conditions specified for individual assignments.

# Generative AI Use Policy


## AI Policy

Students and prospective students must submit original work in their course and for official University exams, essays, and forms. Material generated from AI tools is not considered original work.

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## Plagiarism

Plagiarism is using the language or ideas of other sources, such as AI tools, without attribution or when the language or ideas of another source are a significant portion of your work, regardless of whether attribution is included. In addition, information derived from AI tools may be limited, inaccurate, or violate intellectual property laws, and therefore, must be verified by the student. Failure to properly cite AI-generated responses may be reported as a violation of the Academic Integrity Policy.

 Additional information about plagiarism is found in the [Academic Integrity policy in the DeVry University Student Handbook \(https://www.devry.edu/students/resources-and-tools/student-handbook.html\)](https://www.devry.edu/students/resources-and-tools/student-handbook.html).

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## Academic Integrity

The use of AI as outlined in this policy applies to all courses unless specified differently in the Course Syllabus, assignment page(s), and/or written permission from the instructor.



