Course Syllabus

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Point Loma Nazarene University

CIT 3054 Database Design

Spring 2025 - Hybrid (4 Credit Hours)

Time and Place:	Thursday Evenings 6:00 pm – 10:00 pm
	Miracosta College, OC4803a
Final Exam	May 8, 2025: 8:30 pm

Instructor:	**Prof. Sam Ovando**	Best way to reach me is to email me at my PLNU email address. I will be monitoring it regularly and will respond as soon as possible.
	sovando@pointloma.edu	**Office**: On-line **Appointments/Help**: Email me so we can set a time to meet.

Students are welcome to contact me via e-mail and schedule an appointment at any time as I am available. Appointments can be face to face in the classroom, on the phone or via a video conference call.

Text: (Note: the print copy textbook for this course is lent to the students for the duration of the course. Students will be charged if the textbook is not returned at the end of the course).

Database Systems – Design, Implementation and Management 13e

Carlos Coronel and Steven Morris

ISBN: 978-1-337-62790-0

Needed Supplies:

Consistent and regular access to a computer running either Windows or MacOS (preferably running windows) with at least 8Gb of RAM and 25Gb of free storage space, standard office software, **and the ability to install software on your computer**. You are required to bring your computer to class to start in class assignments. You should have your textbook available during each class sessions. We will be using information from the textbook each week as part of in class assignments. Students must also have MS Word and the required course software installed. Installation of MS Access is recommended.

Student must have the required database software installed and working on their computer to complete weekly assignments.

Catalog Description:

This course is designed to provide an in-depth, hands-on introduction to designing and implementing databases that use relational technologies with a significant market presence. Hands-on assignments using an industry standard DBMS, such as MS SQL, MySQL, or Oracle Server will receive significant coverage in the course. SQL and various vendor extensions to the language will be covered. In addition, some advanced topics such as stored procedures and triggers will be covered.

Course Learning Outcomes:

1. Students will be able to explain the importance of database design.
2. Students will be able to explain the main components of database systems.
3. Students will be able to explain data modeling and why data models are important.
4. Students will be able to explain relational model components and how tables relate within the database.
5. Students will be able to create ER Diagrams and define the components within the ER Diagram.
6. Students will be able to define the characteristics of good primary keys and foreign keys within a relational table.
7. Students will be able to write basic and advanced SQL statements to create tables, insert table records, select database information, and delete table records and tables.

8. Students will be able to create database triggers and stored procedures.
9. Students will be able to create a sound database design using the SDLC.
10. Students will be able to explain database locking rules and concurrency control systems.
11. Students will be able to explain data warehousing and OLAP concepts.
12. Students will be able to explain concepts about big data analytics and NoSQL.

Program Learning Outcomes:

Graduates will have a coherent and broad-based knowledge of the discipline of Computer Information Technology.

1. Students will be able to identify and evaluate information technology infrastructure necessary to meet an organization's business needs.
2. Students will be able to develop, plan, and evaluate appropriate processes for managing information systems and information technology projects.
3. Students will be able to design, develop, and evaluate software solutions to meet an organization's business needs.
4. Students will be able to apply their technical knowledge to solve problems.
5. Students will be able to speak about their work with precision, clarity, and organization (Oral Communication).
6. Students will be able to write about their work with precision, clarity, and organization (Written Communication).
7. Students will collaborate effectively in teams.
8. Students will be able to identify, locate, evaluate, and effectively and responsibly use and cite information for the task at hand (Information Literacy).
9. Students will be able to gather relevant information, examine information, and form a conclusion based on that information (Critical Thinking).
10. Students will be able to understand and create arguments supported by quantitative evidence, and they can clearly communicate those arguments in a variety of formats (Quantitative Reasoning).
11. Students will understand the professional, ethical, legal, security, and social issues and responsibilities with the implementation and use of information technology.
12. Computer Information Technology graduates will be adequately prepared for entry into graduate school or jobs in the computing profession.

Program Learning Outcomes Assessed in this Course:

Outcome: Students will be able to understand and create arguments supported by quantitative evidence, and they can clearly communicate those arguments in a variety of formats (Quantitative Reasoning).

Assessment Tool: Selected Questions From Final Exam

Course Organization:

Reading: The assigned reading each week should be completed before class. Lecture, class discussion, and class activities will be based on the assumption that the reading has been completed before the class of a given week.

Chapter Practice Quizzes: Quizzes are open book and will focus on having read and understood the reading assignment. Quizzes will be taken online using Canvas before class and will be available a week before they are due. Each quiz will have 10 questions, and students will have 8 minutes to complete the quiz. Each quiz is due before we discuss the topic in class. This is to encourage students to complete the reading prior to class discussion. Missed quizzes will receive zero points, and there will be no make-up for missed quizzes. Quiz questions are randomly pulled from a large dataset, and students are able to take the quiz as many times as they would like before the quiz's due date and time. Quizzes may be taken as often as desired, and the highest score will be used.

Weekly Assignments: Each week, students will be assigned a series in class activities and problems to begin during class time and then be completed before the next class sessions. Activities and assignments will be based on in-class discussions and various problem-solving tasks to reinforce the learnings covered in the weekly readings.

Final Exam: A final exam will be given in class. The final exam will cover all material throughout the course. The exam will consist of two parts. The first part will be a closed book, closed note multiple choice exam. Questions will be similar to questions from the chapter quizzes and cover the same knowledge domains. The second part will be an open-book practical exam where students are given programming problems to create or correct. **A score of 50% or more must be earned on the final exam to earn a passing grade in the course.**

If you miss an exam for a school function, you must make arrangements to take it at an alternative time. If you ever miss an exam without giving the instructor prior notice, there is a good chance you will receive a zero unless, of course, there was an emergency. The final exam must be taken on your host Operating System. The use of a virtual machine is not allowed during the exam.

E-mail and Messages:

Students are expected to regularly use their PLNU e-mail. The instructor will periodically send you information and updates via e-mail and/or canvas. Students **must** activate their PLNU email account a week prior to the first class session if you are not currently using it.

Activity Point Distribution:

Activity	Points	Percent
Weekly Questions	85	10%
Reading Quizzes	200	22%
Weekly Assignments	380	43%
Final Exam	225	25%
Total	**890**	**100%**

Grading Scale:

A	92 - 100%	**C**	72 - 76.9%
A-	90 - 91.9%	**C-**	70 - 71.9%
B+	87 - 89.9%	**D+**	67 - 69.9%
B	82 - 86.9%	**D**	62 - 66.9%
B-	80 - 81.9%	**D-**	60 - 61.9%
C+	77 - 79.9%	**F**	0 - 59.9%

Credit Hour Information: Distribution of Student Learning Hours

In the interest of providing sufficient time to accomplish the stated course learning outcomes, this class meets the PLNU credit hour policy for a 4-unit class delivered over 7 weeks. Specific details about how

the class meets the credit hour requirements can be provided upon request. It is anticipated that you will spend a minimum of 37.5 participation hours per credit hour in your course. The estimated time expectations for this course are shown below:

Activity	**Hours**
Reading and Online Quizzes	49
In-Class Discussion and Activities	28
Weekly Assignments	68
Exams Preparation	5
TOTAL	150

Late Homework/Classwork:

Reading Quizzes are not accepted late. If you fail to take the reading quiz before the due date/time, you will receive a zero for the quiz. Other assignments can be submitted late but will receive a 10% point deduction for each day late (24 hour period after the due date/time). **Late assignments will not be accepted more than four days late.** No assignment will be accepted after the last day of class.

Technical Support:

Please contact IT Services (ITS) at 619-849-2222 for technical support if your account gets locked out or you need a password reset.

University Mission:

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

Institutional Learning Outcomes:

1. Learning, Informed by our Faith in Christ - Students will acquire knowledge of human cultures and the physical and natural world while developing skills and habits of the mind that foster lifelong learning.
2. Growing, In a Christ-Centered Faith Community - Students will develop a deeper and more informed understanding of others as they negotiate complex professional, environmental and social contexts.
3. Serving, In a Context of Christian Faith - Students will serve locally and/or globally in vocational and social settings.

Department Mission:

The Mathematical, Information, and Computer Sciences department at Point Loma Nazarene University is committed to maintaining a curriculum that provides its students with the tools to be productive, the passion to continue learning, and Christian perspectives to provide a basis for making sound value judgments.

Academic Accommodations:

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (**EAC@pointloma.edu (mailto:EAC@pointloma.edu)** or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. The EAC makes accommodations available to professors at the student's request.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course. Accommodations are not retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any special accommodations.

Artificial Intelligence (AI) Policy:

You are allowed to use Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) to generate ideas, but you are not allowed to use AI tools to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course unless explicitly called for in the assignment instructions. If you have any doubts about using AI, please gain permission from the instructor.

Some Tips About This Class:

- Set aside at least 10 - 15 hours each week to complete learning sessions.
- Come to class fully prepared to participate in learning by completing all assigned reading, reading quizzes, online labs, and videos.
- If you have a question ***ASK***.

Additional Course Information:

Additional PLNU policies and practices (https://docs.google.com/document/d/1RcF7S-KrVqgSVzclL1SnUjTlalcySL8l/edit?usp=sharing&ouid=116164865489739533893&rtpof=true&sd=true%20) that apply to this course can be found at the following link:

https://docs.google.com/document/d/1RcF7S-KrVqgSVzclL1SnUjTlalcySL8l/edit?usp=sharing&ouid=116164865489739533893&rtpof=true&sd=true (https://docs.google.com/document/d/1RcF7S-KrVqgSVzclL1SnUjTlalcySL8l/edit?usp=sharing&ouid=116164865489739533893&rtpof=true&sd=true)

Course Summary:

Date	Details	Due
Sun Mar 16, 2025	**Week 01: Overview**	to do: 11:59pm
Wed Mar 19, 2025	**Ch01-Ch02 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78465/assignments/1148739)**	due by 6pm
Thu Mar 20, 2025	**Academic Honesty Verification Statement (https://canvas.pointloma.edu/courses/78465/assignments/1148737)**	due by 6pm

Date	Details	Due
	Chapter 01 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148734)	due by 6pm
	Chapter 02 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148736)	due by 6pm
	Software Installation Verification - Assignment not accepted late (https://canvas.pointloma.edu/courses/78465/assignments/1148756)	due by 6pm
	Syllabus Quiz - Not accepted late (https://canvas.pointloma.edu/courses/78465/assignments/1148735)	due by 6pm
Sun Mar 23, 2025	Install and Test Course Software	to do: 11:59pm
	Response Post Reminder	to do: 11:59pm
	Week 02: Overview	to do: 11:59pm
Wed Mar 26, 2025	Ch03-Ch04 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78465/assignments/1148740)	due by 6pm
Thu Mar 27, 2025	Ch01-Ch02 Activities and Homework (https://canvas.pointloma.edu/courses/78465/assignments/1148746)	due by 6pm
	Chapter 03 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148726)	due by 6pm
	Chapter 04 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148731)	due by 6pm
Sun Mar 30, 2025	Week 03: Overview	to do: 11:59pm
Wed Apr 2, 2025	Ch05-Ch06 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78465/assignments/1148741)	due by 6pm

Date	Details	Due
Thu Apr 3, 2025	Ch03-Ch04 Activities and Homework (https://canvas.pointloma.edu/courses/78465/assignments/1148747)	due by 6pm
	Chapter 05-06 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148732)	due by 6pm
Sun Apr 6, 2025	Week 04: Overview	to do: 11:59pm
Wed Apr 9, 2025	Ch07 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78465/assignments/1148742)	due by 6pm
Thu Apr 10, 2025	Ch05-Ch06 Activities and Homework (https://canvas.pointloma.edu/courses/78465/assignments/1148748)	due by 6pm
	Chapter 07 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148727)	due by 6pm
Sun Apr 13, 2025	Mid-Course Survey (https://canvas.pointloma.edu/courses/78465/assignments/1148733)	due by 11:59pm
	Week 05: Overview - Online Week	to do: 11:59pm
Fri Apr 18, 2025	Database Design Course Online Discussion - Not accepted late (https://canvas.pointloma.edu/courses/78465/assignments/1148738)	due by 11:59pm
Sun Apr 20, 2025	Week 06: Overview	to do: 11:59pm
Wed Apr 23, 2025	Ch08 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78465/assignments/1148743)	due by 6pm
Thu Apr 24, 2025	Ch07 Activities and Homework (https://canvas.pointloma.edu/courses/78465/assignments/1148749)	due by 6pm

Date	Details	Due
	Chapter 08 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148725)	due by 6pm
Sun Apr 27, 2025	Week 07: Overview	to do: 11:59pm
Wed Apr 30, 2025	Ch10-Ch13 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78465/assignments/1148744)	due by 6pm
Thu May 1, 2025	Ch08 Activities and Homework (https://canvas.pointloma.edu/courses/78465/assignments/1148750)	due by 6pm
	Chapter 10 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148724)	due by 6pm
	Chapter 13 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148722)	due by 6pm
Sun May 4, 2025	Week 08: Overview	to do: 11:59pm
Wed May 7, 2025	Ch14 Questions - Due 24 hours before class (https://canvas.pointloma.edu/courses/78465/assignments/1148745)	due by 6pm
Thu May 8, 2025	Ch10-Ch13 Activities and Homework (https://canvas.pointloma.edu/courses/78465/assignments/1148751)	due by 6pm
	Chapter 10 - Locking Lab (https://canvas.pointloma.edu/courses/78465/assignments/1148753)	due by 6pm
	Chapter 14 Quiz (https://canvas.pointloma.edu/courses/78465/assignments/1148723)	due by 6pm
	Final Exam Part 2 Practice (https://canvas.pointloma.edu/courses/78465/assignments/1148728)	due by 6pm
	Official Course Evaluation (https://canvas.pointloma.edu/courses/78465/assignments/1148755)	due by 6pm

Date	Details	Due
	Ch14 Activities (https://canvas.pointloma.edu/courses/78465/assignments/1148752)	due by 9pm
	Final Exam Part 1.2 - Closed Book (https://canvas.pointloma.edu/courses/78465/assignments/1148729)	due by 10pm
	Final Exam Part 2.2 - Open Book (https://canvas.pointloma.edu/courses/78465/assignments/1148730)	due by 10pm
	Final Exam Curve (https://canvas.pointloma.edu/courses/78465/assignments/1148754)	