



# DATABASE DESIGN AND ADMINISTRATION

## DDA400 — Database Design & Administration, 3.0 hours

### PROFESSOR

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Walker Byrd

While pursuing a Master's Degree in Information Technology from Grantham University, I developed skills in reverse engineering, computer forensics, networking, training and information security. This knowledge has enabled me to operate in Windows and Linux platforms and master multiple security principles virtual and physical.

During my 28 years in the Military as a Signal Warrant Officer I have had several opportunities to act in an instructor role; both face to face and virtual. I have been trained as an instructor by both the U.S. Army and the Royal Danish Defense College in Copenhagen, Denmark. I take teaching to heart in all cases.

### CONTACT INFORMATION

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E-mail: [wbyrd@lakewood.edu](mailto:wbyrd@lakewood.edu)

Cell Phone: 800-517-0857 X 787

### ONLINE SUPPORT (IT) AND MOODLE NAVIGATION:

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All members of the Lakewood University community who use the University's computing, information or communication resources must act responsibly. Support is accessible by calling 1-800-517-0857 option 2 or by emailing [info@lakewood.edu](mailto:info@lakewood.edu)

### BOOKS AND RESOURCES

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Coronel, Carlos, and Steven Morris. Database Systems: Design, Implementation, & Management. (14th Edition). Cengage Learning US, 2022.

### EVALUATION METHOD

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Graded work will receive a numeric score reflecting the quality of performance.

Course Requirement Summary

- Assignments - Total of 60 Points
- Weekly discussion forums-Total of 80 Points
- Final Exam - 50 Points

# GRADING SCALE

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Graded work will receive a numeric score reflecting the quality of performance as given above in evaluation methods. The maximum number of points a student may earn is 190. To determine the final grade, the student's earned points are divided by 190.

Your overall course grade will be determined according to the following scale:

A = (90% - 100%)  
B = (80% - 89%)  
C = (70% - 79%)  
D = (60% - 69%)  
F < (Below 60%)

# ACADEMIC INTEGRITY/ PLAGIARISM:

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Cheating (dishonestly taking the knowledge of another person whether on a test or an assignment and presenting it as your work) and plagiarism (to take and pass off as one's own the ideas or writing of another) are a serious issue. While it is legitimate to talk to others about your assignments and incorporate suggestions, do not let others "write" your assignments in the name of peer review or "borrow" sections or whole assignments written by others. We do get ideas from life experiences and what we read but be careful that you interpret these ideas and make them your own.

I am aware that many types of assignments are available on the internet and will check these sources when there is legitimate suspicion.

Penalty is a zero on the assignment. In cases where there is a major or continuous breach of trust, further discipline, such as an "F" in the course, may be necessary.

The major consequence of any form of cheating is damage to your character and the result of trust and respect.

# DISABILITY ACCOMMODATIONS

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Students who have a disability and wish to request an academic accommodation should contact Jim Gepperth, the Disabilities Services Coordinator and Academic Dean. The student can request an accommodation at any time although it is encouraged to do so early in the enrollment process. The student should complete an accommodation request form which begins a conversation between the school and the student regarding the nature of their disability and an accommodation that would help the student succeed in their program. The school may request documentation regarding the disability to address the accommodation request effectively. The school will communicate to the student the type of accommodation arranged. This process typically follows a team approach, bringing together persons from the academic department (including the instructor) and personnel from other departments as necessary. Additional information on disability accommodations may be found in the Lakewood University Catalog.

Disability Services Email: [disabilityservices@lakewood.edu](mailto:disabilityservices@lakewood.edu)

# SUPPLEMENTAL TEXTS

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You can use the following resources to assist you with proper source citation.

American Psychological Association Style Guide- [https://www.mylakewoodu.com/pluginfile.php/118179/mod\\_resource/content/1/APA%20Style%20Guide%207th%20edition.pdf](https://www.mylakewoodu.com/pluginfile.php/118179/mod_resource/content/1/APA%20Style%20Guide%207th%20edition.pdf)

The Purdue OWL website is also a helpful resource for students. Here is a link to the OWL website: [https://owl.purdue.edu/owl/research\\_and\\_citation/apa\\_style/apa\\_formatting\\_and\\_style\\_guide/general\\_format.html](https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html)

# LIBRARY

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Mary O'Dell is the Librarian on staff at Lakewood University

She is available by appointment. You can make an appointment with her by emailing her at [modell@lakewood.edu](mailto:modell@lakewood.edu) or call at 1-800-517-0857 X 730

You may also schedule a meeting at this link: <https://my.setmore.com/calendar#monthly/r3a761583354923270/01032020>

She can assist you with navigating LIRN, research, citations etc.

# SUPPORT

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Each student at Lakewood University is assigned a Success Coach. Your Success Coach exists to assist you with academic and supportive services as you navigate your program. They will reach out to you, often, to check-in. Please use the resources they offer.

Student Services is available to assist with technical questions regarding Lakewood University and all services available to you.

1-800-517-0857 option 2  
[info@lakewood.edu](mailto:info@lakewood.edu)  
[studentservices@lakewood.edu](mailto:studentservices@lakewood.edu)

# CAREER SERVICES

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Students are offered Career Services at any point as they journey their academics at Lakewood University.

1-800-517-0857 option 2  
[careerservices@lakewood.edu](mailto:careerservices@lakewood.edu)

# LESSONS

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TITLE	COURSE TOPIC	READINGS/ASSIGNMENTS	DUE	OBJECTIVES
Lesson #1	<ul style="list-style-type: none"><li>Database Systems</li><li>Data Models</li></ul>	Study Course Syllabus Read Chapters 1 & 2 Participate in the Discussion Forum Complete Assignment 1 Lesson Evaluation	Assignment 1 upon completion of the lesson	Objective 1
Lesson #2	<ul style="list-style-type: none"><li>The Relational Database Model</li><li>Entity Relationship (ER) Modeling</li></ul>	Read Chapters 3 & 4 Participate in the Discussion Forum Lesson Evaluation		Objective 2
Lesson #3	<ul style="list-style-type: none"><li>Advanced Data Modeling</li><li>Normalization of Database Tables</li></ul>	Read Chapters 5 & 6 Participate in the Discussion Forum Lesson Evaluation		Objective 3

TITLE	COURSE TOPIC	READINGS/ASSIGNMENTS	DUE	OBJECTIVES
Lesson #4	<ul style="list-style-type: none"> <li>Introduction to Structured Query Language (SQL)</li> <li>Advanced SQL</li> </ul>	Read Chapters 7 & 8 Participate in the Discussion Forum Complete Assignment 2 Lesson Evaluation	Assignment 2 upon completion of the lesson	Objective 4
Lesson #5	<ul style="list-style-type: none"> <li>Database Design</li> <li>Transaction Management and Concurrency Control</li> </ul>	Read Chapters 9 & 11 Participate in the Discussion Forum Lesson Evaluation		Objective 5
Lesson #6	<ul style="list-style-type: none"> <li>Database Performance Tuning and Query Optimization</li> <li>Distributed Database Management Systems</li> </ul>	Read Chapters 11 & 12 Participate in the Discussion Forum Lesson Evaluation		Objective 6
Lesson #7	<ul style="list-style-type: none"> <li>Business Intelligence and Data Warehouses</li> <li>Big Data and NoSQL</li> </ul>	Read Chapters 13 & 14 Participate in the Discussion Forum Lesson Evaluation		Objective 7
Lesson #8	<ul style="list-style-type: none"> <li>Database Connectivity and Web Technologies</li> <li>Database Administration and Security</li> </ul>	Read Chapter 15 & 16 Participate in the Discussion Forum Complete Assignment 3 Complete the Final Exam Request the Next Course Lesson Evaluation THANKS FOR A GREAT CLASS	Assignment 3 and Final exam upon completion of the lesson	Objective 1

## DESCRIPTION

Upon completion of this course students will be able to improve business performance and bring efficiency through the development of credible databases. Students will learn to strategically develop appropriate architecture and design while performing data modeling, data warehousing using the updated tools and technologies.

### Program Objectives

1. Students will learn the importance of database systems and data models.
2. Students will gain an understanding in Relationship (ER) Modeling.
3. Students will learn how to demonstrate skills in advanced data modeling, and normalization of database tables.
4. Student will learn the Introduction to Structured Query Language (SQL), Advanced SQL, and Database Design.
5. Students will show mastery in transaction management and concurrency control, and database performance tuning and query optimization.
6. Students will learn the importance of Distributed Database Management Systems, Business Intelligence, and Data Warehouses.
7. Students will gain the knowledge and understanding of Big Data and NoSQL, and Database Connectivity and Web Technologies.
8. Students will demonstrate mastery in Database Administration and Security.

# OBJECTIVES

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1. Students will learn the importance of database systems and data models.
2. Students will gain understanding in Relationship (ER) Modeling.
3. Students will learn how to demonstrate skills in advanced data modeling, and normalization of database tables.
4. Student will learn the Introduction to Structured Query Language (SQL), Advanced SQL, and Database Design.
5. Students will show mastery in transaction management and concurrency control, and database performance tuning and query optimization.
6. Students will learn the importance of Distributed Database Management Systems, Business Intelligence, and Data Warehouses.
7. Students will gain the knowledge and understanding of Big Data and NoSQL, and Database Connectivity and Web Technologies.
8. Students will demonstrate mastery in Database Administration and Security.