



Lincoln University

BA 353

Information Systems Database Management

COURSE SYLLABUS

Spring 2025

Instructor: Dr. Walter Kruz, DBA
Lecture Schedule: Weds, 3:30 PM – 6:15 PM
Credits: 3 units / 45 lecture hours
Level: Mastery 2 (M2)
Office Hours: Weds, 12:00 PM – 12:30 PM, By appointment
e-mail: wrkruz@lincolnuca.edu
Main Textbook: Modern Database Management by Hoffer, 12th Edition
ISBN: 10:0-13-354461-9, Pearson
Prerequisite: BA160 or BA350
Last Revision: Jan 5, 2025

CATALOG DESCRIPTION:

Explanation and comparison of the techniques and methodologies of database management systems in a business environment. Limitation and application of various DBMS; cost and benefits in selecting DBMS (3 units).

EDUCATIONAL OBJECTIVES

By taking the course, students will learn about database management systems and methods, database context management, the database environment, and the database development process. Students will learn methods of database analysis, data modeling, logical and physical database design and implementation, and the use of SQL. The M/S Access DBMS may be used. A project describing the development of a RDBMS in support of a given business model will provide a practical view of database design.

COURSE LEARNING OUTCOMES¹

	Course Learning Outcome	Program LO	Institutional LO	Assessment activities
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¹ Detailed description of learning outcomes and information about the assessment procedure are available at the [Learning Outcomes Assessment](#) section of LU website.

1	Demonstrate an ability to analyze organizational data and develop its conceptual data model ERD (Entity Relation Diagram).	PLO 1	ILO 1b, ILO 2b	Homework, participation in the in-class discussions; case studies; quizzes; midterm/final exams
2	Demonstrate ability to map conceptual data model into logical data model.	PLO 1	ILO 1b, ILO 2b, ILO 4b	Participation in the in-class discussions; case studies; quizzes
3	Demonstrate ability to map logical data model to physical model using SQL DDL (Data Definition Language)	PLO 3	ILO 2b, ILO 7b	Course project presentation, course project report; case studies; quizzes
4	Demonstrate ability to manipulate data using SQL DML (Data Manipulation Language)	PLO 5	ILO 4b, ILO 5b	Course project presentation; case studies

INSTRUCTIONAL METHODS

This class offers a highly interactive learning environment. All students will expect to participate in class discussions, research findings, and class exercises. Short oral presentations may be assigned. Assignments may consist of database technologies and systems. Assignments and projects require students to actively use resources of the library and the Computer Lab. Detailed guide to business *resources of the library* as well as the description of Lincoln University approach to *information literacy* are available at the [LU Library](http://lincolnuca.libguides.com) website (lincolnuca.libguides.com).

CLASS ATTENDANCE

Attendance is a school requirement. Exams may include questions from class discussions.

EXAMS

Typically, the class exams will consist of several exams of equal weight. All exams are individual deliverables. These activities enable the student to accumulate points which will be used to calculate grade performance. Exams are designed to demonstrate a student's mastery of concepts being discussed and consist mostly of short answers and calculations related to the material being discussed. The exam format is closed book with no electronic devices allowed. Failure to follow exam rules will earn 0 points or "F" grade for that exam.

COURSE PROJECT

A project will consist of research resulting in the creation of a basic information system using a DBMS application in support of a given business model. A written report and a final system presentation will be delivered at the end of the semester. A project outline is provided in class as guidance to complete the report.

COURSE GRADE**GRADE DISTRIBUTION**

The points needed for securing a given course grade are shown in the table posted below:

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	F
Points	94-100	90-93	87-89	83-86	80-82	77-79	73-76	70-72	67-69	60-66	0-59

Weights	
Homework	10%
Quizzes	5%
Midterm Exams (20% each) (3 exams)	65%
System Development Project	20%
Total	100%

PROPOSED SCHEDULE OF TESTING

Session	Test
5	Exam 1
10	Exam 2
15	Exam 3

PROPOSED CLASS SCHEDULE

Session	Activity	Assignment
Session 1	Chapter 1. Intro to Databases, Class Project planning. Business model.	Lecture, class exercises,
Session 2	Chapter 1. Database environment and Development process	Ch1 exercises to be assigned in class (TBA)
Session 3	Chapter 2. Modeling Data in the Organization – P1	Ch. 2 exercises TBA
Session 4	Chapter 2. Modeling Data in the Organization – P2	Ch. 2 exercises TBA
Session 5	Exam 1	Chapters 1 & 2
Session 6	Logical Database Design and the Relational Model – P1	Ch. 4 exercises TBA
Session 7	Logical Database Design and the Relational Model – P2	Ch. 4 exercises TBA
Session 8	Introduction to SQL, P1 DDL	Ch. 6 exercises TBA
Session 9	Introduction to SQL, P2 DML	Ch. 6 exercises TBA
Session 10	Exam 2	Chapter 4 & 6
Session 11	Introduction to SQL, P3 SELECT	Ch. 6 exercises TBA
Session 12	Introduction to SQL, P4 SELECT	Ch. 6 exercises TBA
Session 13	Advanced SQL (JOINS)	Ch 7 exercises TBA
Session 14	Review	Submit Project
Session 15	Exam #3 or Final presentation	

Last Revision: 1/5/25