

# Lincoln University

<b>Course Title:</b>	Database
<b>Course Number:</b>	CS 137
<b>Semester:</b>	Spring 2016
<b>Units:</b>	3 units (45 lecture hours)
<b>Class Hours:</b>	Saturday 09:00 – 11:45 AM
<b>Professor:</b>	Dr. Miron Yoffe
<b>Phone:</b>	617-538-4364
<b>Email:</b>	<a href="mailto:myoffe@lincolnuca.edu">myoffe@lincolnuca.edu</a>
<b>Office Hours:</b>	By appointment
<b>Course Website:</b>	All information and material pertaining to this course will be made available through the <a href="#">Course Website</a> on the Canvas.

## **Course Description** (from catalog)

A survey of the major types of database systems and subsequent issues in development and implementation. Discussions focus on relational and object-oriented models, normalization theory, query languages, design theory, and issues in concurrent and distributed database systems. (3 units)

**Prerequisite:** CS 50

## **Learning Objectives**

To introduce students to 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.

## **Learning Recourses**

Textbook: *Modern Database Management*, Jeffrey A. Hoffer, and V. Ramesh Heikki Topi, 12th Edition, 2016. ISBN 13: 978-0-13-354461-9 — ISBN 10: 0-13-354461-3

[Companion website for the textbook](#)

[Video Lectures](#)

[Teradata University Database](#)

[Diagramming Software Lucidchart](#)

[Course Website](#)

## Methodology

The course will be delivered through lectures, lab exercises, discussions, homework assignments, quizzes, and projects. Each class usually consists of a lecture session followed by a lab exercise session. All class exercises require Wi-Fi enabled laptops with Internet Explorer Web Browser.

Students are expected to read ahead sections and watch video tutorials that accompany the text book.

For designing entity relationship diagrams (ERD) we will use [Diagramming Software Lucidchart](#).

For SQL exercises we will use [Teradata University Database](#) website.

Every student must be registered to the Course Website. We are using it for providing course materials, monitoring attendance and participation, homework assignments, quizzes, projects, controlling submission time and grading. The homework files are submitted *only* through the Course Website. All homework assignments are due by 1AM Saturday as instructed by the Course Website. If you are late, you still may use an automatic extension of 8 hours and submit your assignment by 9 AM Saturday. The Course Website has a built in time cut off function and would not allow submission past the deadline or the deadline extension. No further extension would be provided. Hence, any homework passed the due date extension deadline would not be accepted for grading.

## Course Project

Every student must complete and submit an assigned course project no later than two weeks before the end of semester.

## Tentative Course Schedule

Students are expected to **read chapter material to be covered prior to each session.**

Session	Date	Topic.	Chapters
1	01/23/16	The Introduction to Databases	1, Video
2	01/30/16	The Database Environment and Development Process	1
3	02/06/15	Entity-Relationship Model	2
4	02/13/15	Entity-Relationship Model	2
5	02/20/15	Enhanced Entity-Relationship Model	3
6	02/27/15	Logical Database Design and the Relational Model	4
7	03/05/15	Normalization	4

8	03/12/15	Mid Term Exam	
	03/19/15	No Class - SPRING RECESS	
9	03/26/15	Physical Database Design and Performance	5
10	04/02/15	Basic SQL I	6
11	04/09/15	Basic SQL II	6
12	04/16/15	Advanced SQL	7
13	04/23/15	Database Application Development	8
14	04/30/15	Final Exam	
15	05/07/15	Projects Presentations	

Your grade will be assigned based on your performance on homework assignments, quizzes, an individual project, and participation, as follows:

Activity	%	Notes
Classroom activities	10%	Attending classes and completing lab exercises
Homework	10%	Weekly written assignments and quizzes
Midterm Exam	30%	
Final Exam	30%	
Database Project	20%	One term project, to be completed in stages. The project will involve designing and implementing a database system for an organization.
Total	100%	

The final grade will be computed by combining the score of each item in the above table. The conversion from a score grade (S) to a letter grade (L), which is what will be reported to the university, will follow the rules listed below:

100-93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-60	59-0
A	A-	B+	B	B-	C+	C	C-	D+	D	F

### **Examination Policy**

The exams are open books exams. No breaks are allowed during the midterm and each of the parts of the final, if final is administered by parts. (I will make alternative testing opportunities where the need for break is medically required and professionally supported by a letter from a medical doctor).

No exchange of pencils, pens, erasers and any other material between students is allowed. No electronic instrument capable of copying material in any form (in particular, in print or visual image) is allowed in the exam. In particular, cell phones, organizers, advanced calculators, tape recorders, cameras, computers, etc. must be closed and stored inside a

closed bag. Students violating these requirements should expect an F score, as well as further disciplinary hearing.

### **Student Conduct:**

- Please participate. What you put into the class will determine what you get out of it – and what others get out of it.
- Please come **on time**. Late arrivals disturb everyone else. Plan to stay during the whole class period. Attendance will be taken at least one time of each class. In the case where more than one attendance is taken, only students participating in all attendances would be considered as present. Attendance and Participation are part of the grade.
- Students may not read other materials (newspapers, magazines) during class, and no multitasking is allowed.
- Students are not allowed to come and go during class sessions.
- There will be no make-up for a missed participation in a classroom activity.
- If you miss a class, you are responsible for getting notes/slide printouts or the material covered from a classmate.
- To avoid distracting noise in class, cellular phones **must** be turned off or the ringing mode silenced.

### **Academic Integrity**

I encourage you to collaborate on assignments and learn from your fellow students. However, there is a fine line between collaboration and cheating. Collaboration means discussing problems and solution approaches with other students and independently writing your own answers; cheating means copying solutions from someone else or giving someone else your solutions. If you have questions about what is acceptable, please bring them to me *before* submitting your work.

Cheating, plagiarism and helping others commit these acts are all forms of academic dishonesty, and will not be tolerated. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal.

### **Disclaimer**

This syllabus is subject to modification. I am committed to letting students know about changes to the syllabus as soon as possible.

**Last Update:** January 7, 2016. Additional updates may follow. See Canvas for new updates.