

LIS 668 Database Management

Dates of Semester: January 25 – May 5, 2020
Course to be Conducted Online

INSTRUCTOR INFORMATION:

Name: Namjoo Choi, Ph.D.

Name: Namjoo Choi, Ph.D.

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Office hours: Tuesdays, 12:00 p.m. – 2:00 p.m. and Thursdays, 11:00 p.m. – 1:00 p.m. (or by appointment) via Zoom (<https://uky.zoom.us/j/9666864441>)

Preferred contact method: Email

Response time: If you email me, you should expect a response within 24 hours. There may be a delay over weekends or holidays.

COURSE IT REQUIREMENTS

You will need access to an appropriate computer with a broadband Internet connection. Please, make sure that you have a reliable computer for use during the course. Also, note that this course requires you to **install Microsoft Access 2019 (or 365)** in your computer (2016 version is fine, but our text is based on 2019).

Please visit <http://download.uky.edu/>, log in with your UK id and password, and see Microsoft Office 365 ProPlus (freely available to students). If you are a Mac user, you can use UK's Citrix Workstation: <https://www.uky.edu/its/customer-support-student-it-enablement/customer-services/software-downloads/virtual-den-guides>.

COURSE DESCRIPTION

This course is designed as a first database course for MLIS students without any previous experience. The general aim of the course is to understand the basic concepts, principles, and hands-on experiences on database systems. The course will evolve from understanding, visualizing, and analyzing data. Then transition to understanding relational databases by designing and building databases using Access and querying using Structured Query Language (SQL).

STUDENT LEARNING OUTCOMES

After successful completion of this course, you will be able to:

- Demonstrate a clear understanding of the basic concepts and principles of database systems
- Conduct data modeling using Entity-Relationship (ER) diagrams
- Translate ER diagrams to relational data models
- Design a database application using a relational DBMS
- Understand Structured Query Language (SQL) and use SQL to retrieve data from databases

COURSE MATERIALS

Required textbook:

Database Concepts: 9th Edition, by David Kroenke et al.: Pearson, ISBN-13: 978-0135188149. Electronic copy at a lower price: <https://www.pearson.com/store/p/database-concepts/P100001155106/9780135160022>

Additional readings: there will be additional readings to the textbook, and they will be made available on the course Canvas site.

ASSESSMENT & ASSIGNMENTS

Assignments & Grading (total grade = 300 points)

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|--------------------------------|------------------|
| - Access Assignments | 120 points (40%) |
| - Database Concept Assignments | 60 points (20%) |
| - Test 1 | 30 points (10%) |
| - Test 2 | 30 points (10%) |
| - Individual Final Project | 60 points (20%) |

Final grading scale:

90% and above (270 – 300) =	A
80% to 89% (240 – 269) =	B
70% to 79% (210 – 239) =	C
Below 70% (0 – 209) =	E

Access Assignments

Assignments must be submitted as electronic documents (single file for each assignment; save it as a zip file if assignment is in multiple files) via Canvas by the due dates. There will be 12 assignments. They account for 40% (12 x 10 points = total 120 points) of your grade. Late submissions are subject to a penalty of 3 points off per day.

Database Concept Assignments

These assignments are to develop an understanding for the database concepts covered in each week. Review questions (RQ) or exercises (PS) from the textbook will be utilized (5 points x 12 weeks = 60 points). Grading will be based on the following rubric: 5 – correct answer with full explanation, 4 – correct answer with less explanation, 3 - correct answer with explanation, but with minor errors, 2 – incorrect answer with wrong explanation, 1 - incorrect answer with no explanation, 0 – no submission. Late submissions are subject to a penalty of 1.5 points off per day.

Tests:

Each test will include 20 multiple choice questions. These tests are given through Canvas. Details will be supplied with each test, but they test the content covered preceding each test. Review sheets for each test will be also made available a week before the test.

Individual Final Project:

This project due near the end of the semester will consist of using Access to build a real-world database system. The detailed description will be provided after Test 1. Late submissions are subject to a penalty of 6 points off per day.

ETHICS & POLICIES

Excused Absences: Students need to notify the professor of absences prior to class when possible. *Senate Rules 5.2.4.2* defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Two weeks prior to the absence is reasonable, but should not be given any later. Information regarding major religious holidays may be obtained through the Ombud (859-257-3737), http://www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php.

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused) per University policy.

Per *Senate Rule 5.2.4.2*, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the period of the excused absence (except where prior notification is required); and for making up the missed work. The professor must give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred.

Verification of Absences: Students may be asked to verify their absences in order for them to be considered excused. *Senate Rule 5.2.4.2* states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness, or death in the family. Appropriate notification of absences due to University-related trips is required prior to the absence when feasible and in no case more than one week after the absence. In this course, you must provide appropriate documentation of an excused absence no later than the day you return to class.

Regarding University Health Services Health Notes:

1. *Tier 1* excuses **are not** accepted as a valid excused absence. You may use your freebie coupons instead.
2. *Tier 2* excuses **are accepted** as a valid excused absence. However, the instructor reserves the right to request additional or alternative documentation if the instructor, under the circumstances, has concerns about the validity of the Tier 2 documentation.
3. *Tier 3* excuses are **always accepted** as a valid excused absence. The UHS restricts students from attending class with Tier 3 excuses

Academic Integrity: Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Senate Rules 6.3.1 (see <http://www.uky.edu/Faculty/Senate/> for the current set of *Senate Rules*) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording, or content from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work (including, but not limited to a published article, a book, a website, computer code, or a paper from a friend) without clear attribution. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work, which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone.

When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content, and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas, which are so generally and freely circulated as to be a part of the public domain.

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations due to disability: If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859) 257-2754 and via email at drc@uky.edu. Their web address is <http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/>.

Policies concerning academic integrity, excused absences and academic accommodations due to disability are available online at:

<https://ci.uky.edu/sis/sites/default/files/policies.pdf>

Military Members and Veterans: We recognize the complexities of being a member of the military community and also a student. If you are a member of the military or a military veteran or dependent, please inform your instructor if you are in need of special accommodations. Drill schedules, calls to active duty, mandatory training exercises, complications with GI Bill disbursement, and other unforeseen military and veteran related developments can complicate your academic life. If you are aware of a complication, we will work with you and put you in contact with university staff members who are trained to assist you. Please contact the Coordinator of the University of Kentucky Veterans Resource Center at 859-257-1148 for additional assistance. Visit <http://www.uky.edu/veterans> for more available resources.

Title IX Information: The University of Kentucky faculty are committed to supporting students and upholding the University's non-discrimination policy. Discrimination is prohibited at UK. If you experience an incident of discrimination, we encourage you to report it to Institutional Equity & Equal Opportunity (IEEO) Office, 13 Main Building, 859-257-8927.

Acts of Sex- and Gender-Based Discrimination or Interpersonal Violence: If you experience an incident of sex- or gender-based discrimination or interpersonal violence, we encourage you to report it. While you may talk to or share information with a faculty member, instructor, TA, or RA, understand that as a "Responsible Employee" of the University these individuals MUST report any acts of violence (including verbal bullying and sexual harassment) to the University's Title IX Coordinator in the IEEO Office (859-257-8927). If you would like to speak with someone who may be able to afford you confidentiality, the Violence Intervention and Prevention (VIP) program (Frazee Hall – Lower Level; VIP Center <http://www.uky.edu/VIPCenter>; 859-257-3574), the Counseling Center (106 Frazee Hall, UK Counseling Center <http://www.uky.edu/counselingcenter/>; 859-257-8701), and University Health Service (830 S. Limestone; Student Health <https://ukhealthcare.uky.edu/university-health-service/student-health>; 859-323-2778) are confidential resources on campus.

TECHNOLOGY INFORMATION & RESOURCES

Distance Learning Students are expected to have a minimum level of technological acumen and the availability of technological resources. Students must have regular access a computer with a reliable Internet connection and audio capabilities. Internet Explorer 7 (IE) or Firefox 2.x are the recommended browsers for those using a Windows-based PC. Those using Firefox 3.x may encounter problems with assignment uploads. Those using an Apple computer with MAC OS X (10.5.x) may use Firefox 3.x or Safari 3.x. Please be certain that your computer and/or browser allow you to view Adobe Reader documents (.pdf). Microsoft Office and other software products are free for students: <http://download.uky.edu/>.

As your instructor, I am your first go-to person for technology problems. If you need more immediate assistance, please contact UKIT.

Information Technology Customer Service Center (UKIT)

<http://www.uky.edu/UKIT/>; 859-218-4357

For more resources about online classes and student resources, visit <http://www.uky.edu/ukonline/>

Our College has a page with a comprehensive list of technology resources here:

<http://ci.uky.edu/sis/students/techtips>

INTEGRATION OF THE SYLLABUS WITH THE THEMES OF DIVERSITY, ASSESSMENT, AND TECHNOLOGY

All UK professional education programs address and affirm the value of diversity in education, the use of technology to support all aspects of instructional programming, and the importance of attaining high levels of skill in assessing the outcomes of instruction. This course provides students an opportunity to demonstrate attention to these themes and reflect on the mechanisms that this course has provided to demonstrate improved skills in these areas.

COURSE SCHEDULE AND READINGS

There follows an outline of course content for each week, with course assignments.

Week	Begins	Read	Pages in Textbook
Chapter 1: Getting Started			
1	Jan. 25	Review syllabus and familiarize yourself with organization of the course in Canvas. Kroenke & Taylor, Chapter 1	1-17

Access Assignment 1 (due by 11:59 p.m., Sunday, Jan. 31): pp. 32 – 49 (stop before ‘Adding Data to the CUSTOMER Table in Datasheet View’)

Database Concept Assignment 1 (due by 11:59 p.m., Sunday, Jan. 31)

2 Feb. 1 Kroenke & Taylor, Chapter 1 18-31

Access Assignment 2 (due by 11:59 p.m., Sunday, Feb. 7): pp. 49 – 60

Database Concept Assignment 2 (due by 11:59 p.m., Sunday, Feb. 7)

Chapter 2: The Relational Model

3 Feb. 8 Kroenke & Taylor, Chapter 2 70-79

Access Assignment 3 (due by 11:59 p.m., Sunday, Feb. 14): pp. 65 – 67 (stop before ‘San Juan Sailboat Charters’)

Database Concept Assignment 3 (due by 11:59 p.m., Sunday, Feb. 14)

4 Feb. 15 Kroenke & Taylor, Chapter 2 80-87

Access Assignment 4 (due by 11:59 p.m., Sunday, Feb. 21): pp. 101 – 110 (stop before ‘Creating Relationships Between Tables’)

Database Concept Assignment 4 (due by 11:59 p.m., Sunday, Feb. 21)

5 Feb. 22 Kroenke & Taylor, Chapter 2 88-100

Access Assignment 5 (due by 11:59 p.m., Sunday, Feb. 28): pp. 110 – 118

Database Concept Assignment 5 (due by 11:59 p.m., Sunday, Feb. 28)

Chapter 3: Structured Query Language

6 Mar. 1 SQL Create DB to SQL Primary Key at <http://www.w3schools.com/sql/default.asp>
Kroenke & Taylor, Chapter 3 134-151

Access Assignment 6 (due by 11:59 p.m., Sunday, Mar. 7): pp. 124 – 127

Database Concept Assignment 6 (due by 11:59 p.m., Sunday, Mar. 7)

7 Mar. 8 SQL Foreign Key to SQL Hosting at <http://www.w3schools.com/sql/default.asp>
Kroenke & Taylor, Chapter 3 152-160

Test 1 week - No Access and database concept assignments. Review sheets for test 1 will be provided, and a discussion board titled ‘questions regarding test 1’ will be open for questions.

Test 1 must be taken between 9:00 a.m., Friday, Mar. 12 and 11:59 p.m., Sunday, Mar. 14.

8 Mar. 15 SQL Syntax to SQL Delete at <http://www.w3schools.com/sql/default.asp>
Kroenke & Taylor, Chapter 3 161-172

Access Assignment 7 (due by 11:59 p.m., Sunday, Mar. 21): pp. 204 – 216

Database Concept Assignment 7 (due by 11:59 p.m., Sunday, Mar. 21)

****Mar. 26 - Academic Holiday****

- 9 Mar. 22 SQL Min and Max to SQL Aliases at <http://www.w3schools.com/sql/default.asp>
Kroenke & Taylor, Chapter 3 173-186

Access Assignment 8 (due by 11:59 p.m., Sunday, Mar. 28): pp. 217 – 233

Database Concept Assignment 8 (due by 11:59 p.m., Sunday, Mar. 28)

Final project will be released.

- 10 Mar. 29 SQL Joins DB to SQL Comments at <http://www.w3schools.com/sql/default.asp>
Kroenke & Taylor, Chapter 3 187-203

Access Assignment 9 (due by 11:59 p.m., Sunday, Apr. 4): pp. 241 (only AW.3.1.A to L)

Database Concept Assignment 9 (due by 11:59 p.m., Sunday, Apr. 4)

Chapter 4: Data Modeling and the Entity-Relationship Model

- 11 Apr. 5 Kroenke & Taylor, Chapter 4 271-289

Access Assignment 10 (due by 11:59 p.m., Sunday, Apr. 11): pp. 319 (start from ‘Prototyping a Database in Microsoft Access 2019’) – 337

Database Concept Assignment 10 (due by 11:59 p.m., Sunday, Apr. 11)

Final project first deliverables are due at 11:59 p.m., Sunday, Apr. 11.

- 12 Apr. 12 Kroenke & Taylor, Chapter 4 290-303

Access Assignment 11 (due by 11:59 p.m., Sunday, Apr. 18): pp. 342 (only AW.4.15.A to D)

Database Concept Assignment 11 (due by 11:59 p.m., Sunday, Apr. 18)

Chapter 5: Database Design

- 13 Apr. 19 Kroenke & Taylor, Chapter 5 348-364

Access Assignment 12 (due by 11:59 p.m., Sunday, Apr. 25): pp. 380 (start from ‘N:M Relationships in Microsoft Access’) – 386

Database Concept Assignment 12 (due by 11:59 p.m., Sunday, Apr. 25)

- 14 Apr. 26 Kroenke & Taylor, Chapter 5 364-378

Test 2 week - No Access and database concept assignments. Review sheets for test 2 will be provided, and a discussion board titled ‘questions regarding test 2’ will be open for questions.

Test 2 must be taken between 9:00 a.m., Friday, Apr. 30 and 11:59 p.m., Sunday, May 2.

15 May 3 Final Project

Final project is due at 11:59 p.m., Wednesday, May. 5.