ICT301 – Spring 2020
Introduction to Databases

Instructor Information

Instructor:	Dr. Grant Simpson
Email:	grant.simpson@uky.edu
Office hours:	Online by appointment only
Preferred method of contact:	Email: I usually respond to questions within 24 hours. (Expect a delay during weekends and holidays.) **Please do not contact me via Canvas.**

Course Description

This course is intended to give students a solid background in databases, with a focus on relational database management systems. Topics include data modeling, database design theory, data definition and manipulation languages, storage and indexing techniques, query processing and optimization, and database programming interfaces.

Student Learning Outcomes

Students successfully completing the course will be able to:
- Develop a clear understanding of the basic concepts and principles of database systems
- Design a database application using a relational DBMS
- Describe and apply Structured Query Language (SQL)
- Access and manage database information through web technologies.

Textbooks

- No required textbook
- Readings will be posted on Canvas
- Recommended book for reference (not required):
  PHP and MySQL for Dynamic Web Sites: Visual QuickPro Guide 5th Edition by Larry Ullman (ISBN-13: 978-0134301846)

Class Information

- This is an introductory course. The course is designed for beginners who do not have any prior experience in databases and programming.

- You will need to install required software for assignments, such as a text editor, an FTP client, MySQL Workbench, and others.

Course Activities and Assignments

Your final grade is determined by your performance on the following items:

1. Eleven assignments (75%)
2. Four quizzes (15%)
3. Final exam (10%)

All assignments should be undertaken individually.

Course Grading

90 – 100% = A
80 – 89% = B
70 – 79% = C
60 – 69% = D
Below 60% = E

Mid-term Grade

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (http://www.uky.edu/registrar/calendar).

Important Notes

1. Be sure to complete readings prior to the class meeting.
2. You are responsible for all information, announcements, and changes addressed in classes and/or Canvas.
3. The instructor reserves the right to alter the syllabus during the semester, if necessary.

Submission of Assignments

Assignments are to be submitted online on Canvas. If you submit a piece of coursework after the deadline but within 24 hours of the deadline, your grade will be reduced by 25 percent. Assignments submitted more than 24 hours after the deadline, but less than 48 hours will be marked down by 50 percent. Assignments will not be accepted after 48 hours of the deadline.

COURSEWORK MUST BE SUBMITTED THROUGH CANVAS

Discussing Grades

Students who have grade or exam concerns must approach the professor during office hours, or through appointment. Once grades are posted online, you may visit the professor during office hours or by appointment to review your work. Please contact the professor if you do not find grades posted.

Students who wish to discuss grades or scores earned have one week from the date grades are posted to do so. Grades will not be addressed after this time period has expired. Students need to contact the professor for an appointment to discuss the issue. Students must bring a written explanation of their dispute with them to this appointment. If the matter is still unresolved, students need to contact the director of School of Information Science. Students that do not fulfill these requirements will not be addressed and the original grades will be final.

Attendance Policy

This class is a community whose success depends on _everyone's_ participation. It is vital, particularly for an online class, for you to participate in order to be successful. In the event that you are unable to submit an assignment due to an emergency, you will be asked to provide official written documentation for excused absences the next time you are in class in order for your absence to be excused. Students have 48-hours to notify the professor of an emergency. Extensions will not be given beyond this deadline. For any emergency situation that arises, email your instructor as soon as you know about the situation when possible. Students have one week to complete a missed assignment due to an excused absence upon their return without penalty.

If you know ahead of time that you will be absent from class without an excused absence, please discuss this with your instructor and turn in any assignments ahead of time. Excuses for university-sponsored activities _must be_ made prior to such absences. _No make-up work is available for in-class exercises, assignments, or exams unless approved in advance by your instructor. Students have one week to complete a missed assignment due to an excused absence upon their return without penalty._

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 strongly encouraged to withdraw from the class if more than **_20%_** of the scheduled classes for the semester are missed 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.

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. 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

Technology Information and 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

Library Services & Distance Learning Services
University of Kentucky Libraries: https://libraries.uky.edu.

The School of Information Science has a page with a comprehensive list of technology resources here: http://ci.uky.edu/sis/students/techtips

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.

Tentative Course Calendar

Date	Topic	Assignment
Week 1 (Jan 15-19)	Course Introduction	Introductory questionnaire
Week 2 (Jan 20-26)	Basic HTML	Assignment 1
Week 3 (Jan 27-Feb 2)	Introduction to PHP	Assignment 2
Week 4 (Feb 3-9)	Programming with PHP	Assignment 3 Quiz 1
Week 5 (Feb 10-16)	Programming with PHP	Assignment 4
Week 6 (Feb 17-23)	Programming with PHP	Assignment 5
Week 7 (Feb 24-Mar 1)	Introduction to Relational Database Modeling Systems (RDBMS)/Entity	Assignment 6

	Relationship Modeling (ERM)	
Week 8 (Mar 2-8)	Relational Tables and Normalization	Quiz 2
Week 9 (Mar 9-15)	Structured Query Language (SQL)	Assignment 7
Spring Break (Mar 16-22)	---	---
Week 10 (Mar 23-29)	SQL	Quiz 3
Week 11 (Mar 30-Apr 5)	MySQL Connection with PHP	Assignment 8
Week 12 (Apr 6-12)	Database Driven Application Development	Assignment 9
Week 13 (Apr 13-19)	Database Driven Application Development	Assignment 10 Quiz 4
Week 14 (Apr 20-26)	Database Driven Application Development	Assignment 11
Week 15 (Apr 27-May 3)	Final Review	---
Finals Week (May 4-8)	---	Final Exam