IS490DB AND IS490DB2
INTRODUCTION TO DATABASES
SYLLABUS – FALL 2017

1.1 OPERATIONAL DETAILS

Instructor: Dr. Catherine Blake Email: clblake@illinois.edu

Teachers Assistant: Kenney Guo Email: jguo24@illinois.edu

Course will meet in the Information School building in room 131:

For DB : Friday 9:00-11:50am

For DB2: Friday 1:00-3:50pm

Office hours: Tuesday 4:00-5:00pm Room 322; Wednesday 11:00-12:00pm, Room 303

Required textbook: Elmasri and Navathe, Fundamentals of Database Systems (7th Ed) Publisher: Addison Wesley, ISBN: 0133970779. Note that you can also use the 6th edition (The material that we cover in this class is the same, but the page numbers can differ)

1.2 LEARNING OBJECTIVES

- Develop a general understanding of databases, and specific understanding of the relational database model
- Gain experience with both the theoretical and practical aspects of good database design
- Develop proficiency with entity-relationship modeling
- Develop proficiency in creating tables, primary and foreign keys and attribute constraints
- Write working queries in the structure query language (sql)
- Understand general concepts involved in database operation

1.3 ACADEMIC INTEGRITY

Please review and reflect on the academic integrity policy of the University of Illinois, http://admin.illinois.edu/policy/code/article1_part4_1-401.html to which we subscribe. By turning in materials for review, you certify that all work presented is your own and has been done by you independently, or as a member of a designated group for group assignments. If, in the course of your writing, you use the words or ideas of another writer, proper acknowledgment must be given (using APA, Chicago, or MLA style). Not to do so is to commit plagiarism, a form of academic dishonesty. If you are not absolutely clear on what constitutes plagiarism and how to cite sources appropriately, now is the time to learn. Please ask me! Please be aware that the consequences for plagiarism or other forms of academic dishonesty will be severe. Students who violate university standards of academic integrity are subject to disciplinary action, including a reduced grade, failure in the course, and suspension or dismissal from the University.

1.4 INCLUSIVE ILLINOIS COMMITTEE DIVERSITY STATEMENT

As the state's premier public university, the University of Illinois at Urbana-Champaign's core mission is to serve the interests of the diverse people of the state of Illinois and beyond. The institution thus values inclusion and a pluralistic learning and research environment, one which we respect the varied perspectives and lived experiences of a diverse community and global workforce. We support diversity of worldviews, histories, and cultural knowledge across a range of social groups including race, ethnicity, gender identity, sexual orientation, abilities, economic class, religion, and their intersections.

1.5 ACCESSIBILITY STATEMENT

To obtain accessibility-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES you may visit 1207 S. Oak St., Champaign, call (217) 333-4603 (V/TTY), or e-mail a message to disability@illinois.edu.

1.6 HOW TO SUCCEED IN THIS COURSE

I find that students learn this material best when actively engaged with the readings and technologies used in the course. Course attendance is required. I strongly recommend that you read the chapter before class so that you are ready to ask questions and participate in any discussion. The textbook is not light reading, so you may find it easier to skim the reading before class and then read it again in more detail after we have discussed it. If you do this, do not skip the second reading. Please understand that both the instructor and assistant are here to help you, so if you are not clear on a concept please ask during class (chances are other folks are also unclear) or drop by during office hours. You can also send us an email (email both the instructor and the TA) as sometimes thinking through your question can help us identify where the gap in understanding lies.

1.7 ASSESSMENT AND GRADING

The following list of topics and assessment weights provides an overview of where the focus of the course will be:

- Conceptual Modeling (10)
- Relational Model (18)
- Structured Query Language(14)
- Normalization (16)
- Capstone (20)
- Class Participation (6)

1.7.1 WORKSHOPS

The purpose of the workshops is to introduce you to software that used throughout this course. Each workshop follows directly from the associated educational resource. At the end of the Visio workshop upload your submission to moodle. At the end of the creating tables lab, completed work to the lab assistant. Together these workshops form 4% of your assessment.

Workshop 1 – Visio

Workshop 2 – Creating tables

1.7.2 ASSIGNMENTS

Assignments demonstrate concepts within the lectures. Their weight reflects their relative importance, which is 92% of the assessment. The course will culminate in a capstone project that will use the skills that you have developed throughout the course. All assignments will be submitted via moodle. Please name your assignments with your lastname and assignment number eg Blake1.vsd

Assignment 1 – Given a description, draw an ER Diagram for a dog trainer company

Assignment 2 – Given a description, create a relational database of a student database

Assignment 3 – Given an ER diagram, create both a design and a relational database for a home cleaning service company

Assignment 4 – Structured Query Language (DDL, DML) and hierarchical queries

Assignment 5 – Given a complex ER Diagram, create a relational database design for the mix 'n drinks company

Assignment 6 – Given a description, create both an ER diagram and a database for an accident reporting company called 'hows my driving'

Assignment 7 – Normalizing an existing database

Assignment 8 – Capstone Project

1.7.3 CLASS PARTICIPATION

Students who engage with the material in class typically understand much more of the material than folks who are passive learners. To encourage and reward your participation I have allocated a proportion of your grade to participation. Examples might include correctly answering a question I ask you in class, active participation in class discussions and group exercises, posting related websites, correcting errors on this page. You are expected to attend and fully engage in class each week and to complete homework activities (such as installing the required software). Class participation contributes to 4% of your overall grade.

1.7.4 LATE ASSIGNMENT POLICY.

The course moves quite quickly through the material, so it is in your best interests to submit work on time. Unfortunately we cannot accept assignments after the solution has been posted. Given the number of assignments in the course, it is not fair to other student to postpone posting an assignment due to lateness. Late assignments will incur 5 points off each day late. For example if an assignment is due on Friday at 6:00pm and turned anytime between Friday at 6:01pm and Saturday at 6:00pm would be graded on the usual 100 point scale, then have 5 points (one day late) deducted from the total.

With that said, please let the instructor know immediately if you have extenuating circumstances, such as an unexpected health condition. In such circumstances we will provide alternative assessment. As a general rule, incompletes are not be available for this course, but again if there are unexpected circumstances we will work with you to complete the course.

1.7.5 RELATIONSHIP BETWEEN GRADING AND THE COURSE GRADE

Unless otherwise noted assignments will be graded out of 100 and then weighted as described in the powerpoint slides from the first lecture. Your final grade will calculated using the weighted score of each assignment and the following scale:

Grade	Weighted Score
A	95-100
A-	90-94
B+	85-89
B	80-84
B-	78-79
C+	75-77
C	70-74
F	69 or below

Version 3.0, last modified on September 4, 2017 by Dr. Catherine Blake