Mathematics and Computer Science Department

CS 220: Databases
Spring Semester 2015
http://www.cs.clarku.edu/~jmagee/cs220/

Class Meetings @ BP 326
Tue, Fri 1:25pm – 2:40pm

Lab Meetings @ BP 310:
Fri 12:00pm – 1:15pm

John Magee, Instructor
jmagee@clarku.edu
Always include “CS220” in the subject.

Office hours @ BP 332:
just drop by if I’m in!
Planned hours:
Tue 11:00am – 12:00pm
Fri 11:00am – 1:00pm
and by appointment

Course Description

A comprehensive coverage of database concepts, design, and implementation. Topics include
systems analysis, data modeling, relational databases, logical design, normalization, user interfaces,
query processing including SQL, database administration, security, backup and restore, and
performance evaluation. Popular databases are referenced. Advanced topics will include recent
advances in database technologies, data mining, and “big data”.

This is not a purely practical nor a purely theoretical course. Successful students will effectively
communicate understanding of concepts as well as demonstrate practical implementation of database
design and programming.

Prerequisite:
1 year programming experience (e.g., C, C++ or Java at CS 121 level) and algorithms (CS160).
Familiarity with algebra, probability, statistics, and calculus will be helpful.
Books

The main book for this course:

By Ramez Elmasri and Shamkant Navathe

Other online readings and tutorials will be posted to the website.

Schedule and Website

We will cover much of the material in chapters 1-10 and 15-17. The material may be taken out of order, sections may be skipped, and supplements may be added. The readings and assignments will be posted on the course’s website – please check this often.

Grading

The following percentages are tentative and may be changed at my discretion at any time:

- Attendance, Participation, Professionalism: 10%
- Homework / Programming Assignments (8-10): 30%
- Quizzes (5 or 6): 30%
- Final Project and Presentation: 30%

All students will be evaluated equally. Final letter grade cutoffs will be decided at the end of the semester.

Test and Project Format

The tests will be a mixture of essay, pseudocode, design, or other appropriate question format. You should be able to demonstrate your knowledge of the subject using terminology and techniques covered in class and/or the textbook.

The book is a reference for most of the topics covered in classes. However, we will cover some material in classes that may not be from the textbook; all the assigned readings, lectures and machine problems covered in classes will be fodder for questions on the test.

The final project may be assigned as either individual or team projects. All members in one team will receive same grades on the database design, implementation and presentation. The presentation is scheduled in the final week (at the Final Exam time), and participation is required.

Withdrawing from the Course

If you feel that you want to drop or withdraw from the class, please come talk to me about it as early as possible; I want to help you succeed, but you need to ask for help.

Add/Drop period ends Wednesday January 21, 2015 at 11:59pm
The last date to withdraw and receive a “W” grade is Friday, March 27, 2015.

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Policies and Miscellaneous

The official administrative business of this class will be conducted by email. Grade questions/disputes, explanation of absence, etc. will be processed via email so that we both have a written record of what was agreed. Feel free to discuss in person but an email follow-up is required for the official record.

Attendance and discussion/asking questions are expected and will be reflected in your grade. If you must be absent, please email me in advance to let me know why you won’t be in class, and to let me know what you will do to keep up with the assignments.

CS 220 is not a correspondence course. Inadequate attendance is grounds for a grade of F.

Computer Use Policy
Computers and cell phones should be put away unless you are actively using them for class purposes with my permission. Do not use class time to work on other homework, play games, check email, check Facebook, or surf the web. Such activities can be distracting to other students.

Assignments are due on the date stated on the homework assignment (to be posted on web).
- Assignments received within 0-24 hours of the deadline will be accepted with a 10% penalty.
- Assignments received within 24-48 hours of the deadline will be accepted with a 20% penalty.
- Assignments received more than 48 hours past the deadline will not be accepted or graded.

Plan your work accordingly, and work on all assignments as soon as they are given so you can ask questions in class and get assistance in the labs and tutoring hours.

Students are responsible for ensuring that assignments are correctly submitted. If you have a question or problem, seek help from me immediately.

No special make-up work will be accepted after the end of the semester. Don’t even ask.
In the event of a documented major medical problem, a grade of Incomplete will be given pending the submission of complete work. However, make up work “to improve one’s grade” will not be accepted.

It is the student’s responsibility to retain all papers, quizzes, and exams that have been graded and returned. Should these original documents not be available in the event of a grade dispute, I will need to defer to the own records.

Grades are not negotiable. Don’t even ask – just do the work and you’ll get the grade you deserve. Of course, please bring any clerical grading errors to my attention by email and I will gladly fix them.

Students with academic accommodations. Please let me know privately if you have a disability that necessitates academic accommodations.

Welcoming Classroom. I aim for our classtime to be welcoming and productive for all students. Please let me know what name and pronoun you prefer to be called. Please bring any issues to my attention.
Plagiarism, Collaboration, and Collusion

Unless otherwise specified, all homework assignments are independent work.

It is the student’s responsibility to know and understand the Clark University Academic Integrity policy, which is within the Academic Advising Handbook (The Blue Book) available at the Academic Advising Center.

In addition to the definition of plagiarism in the handbook, with respect to this course, plagiarism is specifically defined to include (but is not limited to) the following:

- collaboration on the solutions/code you write
- copying any part of someone else's assignment/program, even if you have permission and/or have modified the code
- sharing or giving your assignment/code or even a subset of your assignment/code to another student to review
- reviewing another student’s solution (including from past semesters)
- reviewing solutions on the internet

It is my policy to use automatic plagiarism detection software, and suspicious similarities will be uncovered. The University takes acts of cheating and plagiarism very seriously; violators may be suspended or fail the course.

What is acceptable cooperation?
Cooperation is recommended in understanding programming concepts and system features. You are encouraged to discuss the homework problem statements and expected output, and to seek and receive help with programming languages, IDEs, libraries, and other tools.

However, each student must write his or her own solution/code and other deliverables independently.

Acknowledge Help Received
To avoid any misconception about academic conduct, you should acknowledge the names of anybody you discuss assignments with.