CS 481 – Database Systems – Spring 2014

Course Information

214 Copley Science Center	Professor Necaise
MW 2:10 – 3:40	221 Copley Science Center
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	x3277 (752-3277)

This course provides an introduction to the design and use of relational databases including relational algebra, the entity-relationship model, normal forms, functional dependencies and the SQL database query language.

When you successfully complete the course, you should be able to:

- Write queries to obtain data from a relational database.

- Use SQL to create and build a relational database.

- Access a relational database using a high-level language.

- Use the entity-relationship model to design a relational database.

RESOURCES

Text Book.   There is no specific textbook required, but I will list on the web page several good textbooks that you may want to consider.

Daily Schedule.   A day by day schedule that includes reading assignments, handouts, and code samples is provided on the course web page. The schedule is tentative, but daily events will be posted ahead of each class meeting.

Office Hours.   (tentative) MW: 11:30 – 12:30, TR: 1:00 – 2:00, or by appointment.

Please note that these are my formal office hours. I am usually on campus most of the day, and can be found around my office. You should feel free to come by if you need help. Also, email contact is generally an efficient way to get an answer to a simple question.

COURSE WORK

The assigned work for this course will include programming and written assignments, exams, and a final project.

Exams.   There will be two exams during the term and a final comprehensive exam. There will be no make up exams except for official college events. If you have to miss an exam due to an official event you must inform me at least two days in advance of the scheduled exam.

Programming and Written Assignments. There will be 8 - 10 written and programming and written assignments. All assigned work is due on the date specified. Any assignment turned in after the due date/time will be penalized 50% of the total value for that assignment. No assignment will be accepted that is more than *three* days late. If you turn an assignment in late, you must indicate this on the top of the paper. All assignments are to be done on an individual basis, unless otherwise indicated.

Final Project. There will be a final group project for the course in which you design and use a database for a system of your choosing (with my approval). The size and makeup of the groups will be decided at a later date. The final project will also include a report and presentation. The presentations will be made during the last 2 or 3 class meetings with each group having approximately 15 - 20 minutes for their presentation and to answer follow up questions. The final project can not be submitted late.

<u>POLICIES</u>

Programming Environment. You will be using the MariaDB SQL database under Linux for designing, creating, and querying databases. Python will be used to access databases for querying the database and generating reports. A command-line interface to MariaDB will be available on my Linux server.

Slip Days. You will be given 5 "slip" days (includes weekends and holidays) that can be used on any of the SQL related assignments. A slip day allows you to turn the assignment in late without penalty. If you plan to use a slip day, you must indicate this on the assignment when it is turned in. It is your responsibility to keep track of the number of slip days you have used.

Attendance. You are advised to attend all class meetings. The lectures typically supplement the material found in the textbook or online resources. You are responsible for all material related to any class meeting from which you were absent. Note, a portion of your final grade will be based on attendance and class participation.

Grade Distribution. Your final grade will be computed according to the following approximate distributions:

- 35% for programming and written assignments
- 25% for the two exams
- 25% for the final exam
- 10% for the final project
- 5% for attendance and class participation

and the letter grade assigned as follows: A: ≥ 94, A-: $[90 \dots 93]$, B+: $[87 \dots 89]$, B: $[83 \dots 86]$, B-: $[80 \dots 82]$, C+: $[77 \dots 79]$, C: $[73 \dots 76]$, C-: $[70 \dots 72]$, D+: $[67 \dots 69]$, D: $[63 \dots 66]$, D-: $[60 \dots 62]$, and F: < 60.

Extra Credit. No extra credit will be assigned on an individual basis.

Academic Integrity. The College's Code of Academic Integrity sets out a list of prohibited behavior, including plagiarism, cheating, and tampering with or destroying College property (including computers in computer labs). The most common act of academic misconduct is plagiarism, which is defined as "Passing off a source's information, ideas, or words as your own by omitting to acknowledge that source–an act of lying, cheating, and stealing." (Gordon Harvey, Writing with Sources: A Guide for Students) Any student who commits a violation of the Code of Academic Integrity will be subject to the policies and procedures outlined in Fishtales. It is each student's responsibility to read and be familiar with the Code.

All assignments must be done individually, unless otherwise indicated. You may discuss programming assignments informally with other students. However, sharing a solution in the form of experimental results or the design or implementation of a program, or parts of a program, is an honor violation. If you have any uncertainty about what this means, consult with me before you collaborate.

Students with Disabilities. The Americans with Disabilities Act of 1990 and other Federal laws require Randolph-Macon College to provide a "reasonable accommodation" to any individual who advises us of a physical, psychological, or learning disability. If you have a physical, psychological, or learning disability that requires an accommodation, you must first register with the Office for Disability Support Services, located in the Higgins Academic Center. Please arrange a meeting with the course instructor to discuss your needs and how to register for support services.

College Final Exam Policy. Students are required to take all final examinations during the time specified for their administration. However, a student may, with the permission of the course instructor, take an examination with another section of the same course taught by the same instructor. Any other rescheduling of exams requires the approval of the Provost or Associate Dean of the College. Failure to obtain the permission of the Provost's Office will result in an automatic failure of the course. Absence from a final examination can only be excused by the Provost or the Associate Dean of the College. Absence from a final examination without such an excuse will result in failure of the course.

Use of Laptops. The use of laptops and mobile computing devices are permitted during class so long as they are being used for the course such as for taking notes, finding information related to the course, etc. Laptops are not to be used during class for reading email, social networking, completing assignments for other courses, etc. If the use of laptops becomes distracting for myself or other students in the course, *I reserve the right to prohibit their use during class.*

Common Courtesy. Please be courteous to everyone in the classroom. Do not leave the room during class unless you absolutely must as this is distracting to others. If you are late to class, please be as quiet as possible when entering the room and find a seat close to the door so as to not disrupt the class. Do not use a mobile phone during class and make sure the phone is turned off or the ringer is muted before entering the classroom. Finally, my office door is open most of the time. *If it is closed, however, this is an indication that I can not be disturbed at the moment.* Please respect this and try back again later. You are always welcome to contact me by email.