

**CSCI 380: Database Management Systems**  
**COURSE SYLLABUS**  
**Department of Computer Science**  
**University of Wisconsin-Parkside**  
**Fall 2011**

**Instructor**

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**Office Hours:**

Mondays and Wednesdays 1:00 PM-2:30 PM

**Instructor teaching statements:**

I believe that every student is capable of learning and positively contributing to our class.

I love teaching and interacting with students.

I view my role as one of providing you with guided opportunities to explore various topic areas and to expand your understanding of the subject. I want every student to be successful in my classes. However, students must take an active role in their own learning.

**Course Description:**

This course presents the main aspects of relational databases such as database design, normalization and query languages. It includes an overview of Relational Algebra and SQL, and the Oracle database management system. Students will consider several aspects involved in the design of databases such as avoiding data redundancy, security, data consistency and integrity. Students will have several hands on activities with the Oracle system in which they will create databases, execute queries, check integrity constraints, and write procedures, functions, triggers and programs in the PL/SQL programming language. Additionally, students will build a database application for a given organization.

**General Course Guidelines**

1. Topics

- Introduction to Database Systems: Chapter 1
- Relational Model: Chapter 3 (3.1-3.3)
- Database Design , E-R Model :Chapter 2
- E-R transformation to relational :Chapter 3 (3.5)
- Introduction to Oracle (not in textbook, but resources available in its web page)
- Relational Algebra :Chapter 4 (4.1-4.2)
- SQL: Chapter 5 (5.1-5.5)
- Relational Calculus: Chapter 4 (4.3)
- Datalog, and QBE (not in textbook)
- Integrity Constraints, Updates and Views :chapter 5 (5.7) & chapter 3 (3.6)
- Oracle PL/SQL, triggers not all in textbook some in chapter 5 (5.8-5.9)

- Database Application Development, embedded SQL :Chapter 6
  - Functional dependencies relational design :chapter 19 (19.1-19.3)
  - Normalization :Chapter 19 (19.4-19.7)
2. Textbook: Database Management Systems, Ramakrishnan and Gehrke, Third edition ISBN 0-07-246563-8
  3. Your class notes are your best study guide for this course. Anything discussed in class may be in your exams or quizzes regardless of time spent on them.
  4. Grades are posted in D2L. Check periodically for possible errors.

Grading	Weight
Programming Assignments	12% *
Homework	6%
Quizzes	11%
In Class Assignments, labs	4%
Team Project	12%
Exam 1 on Wednesday 10-12-11	15%
Exam 2 on Wednesday 11-16-11	15%
Final Exam Wednesday 12-21-11 at 5:45 PM	25%
<b>T O T A L</b>	<b>100%</b>

\* At least 70% of all programming assignments are required for a passing grade

5. Typical Grade Allocation, but not the final grade allocation.

Alpha	Lowest	Highest
A	93	100
A-	88	92
B+	84	87
B	80	83
B-	75	79
C+	72	74
C	67	71
C-	63	66
D+	61	62
D	58	60
D-	55	57
F	0	54

Final grade allocation will be determined by the instructor depending on the overall class performance. Grades are not curved, but the grade allocation is adjusted to benefit most students.

6. Each student will be responsible for completing the assigned reading, exercises and attending classes.
7. **Attendance**: Excellent attendance is necessary for this class, in order to participate with your group, learn the material, and achieve passing grades. If you cannot attend class, please speak with the instructor in order to determine how best to catch up on missed lectures and exercises. **There will be a sign-in sheet to record attendance.**
8. If you miss a class, you are still responsible for knowing everything that took place. Your absence does not change the due date of an assignment.

9. Assignments must be turned in on the due date at 6:00 pm to receive full credit. Late assignments are penalized at 20% per day (not including weekends). If we need to discuss an assignment solution in class after the due date, then no late assignments will be accepted. Inappropriate submission through D2L or undocumented “failure” of the system will count as no submission.
10. Computer programming assignments, reading and other written homework will be announced in class as needed.
11. **Assignment Submission:** Place your assignment as a single PDF document into the corresponding D2L dropbox. Your PDF file includes the following: (1) Listing of all your code, (2) sample executions, and (3) comments about your development experience and if needed instructions on executing your program(s). Create the PDF file as indicated in class.
12. Quizzes covering the previous three-week's material or reading assignments will take place at the end of class (about 6 to 11 quizzes). If you must miss a quiz, please arrange to take a make-up quiz before the next quiz. If you do not take a quiz or a make-up quiz, you will receive a grade of zero for the quiz in question.
13. Exam dates are tentatively scheduled in the syllabus but will be confirmed one week before the exam date. Make-up exams: If possible, prior notice should be given to me. No make-ups will be granted unless satisfactory documentation is produced to show an extenuating circumstance.
14. All exams and quizzes are closed notes and closed book. However, you will be allowed one 8.5"x 12" sheet of personal notes one-sided for each quiz, and double-sided for each exam.
15. Extra credit activities have the purpose to promote student participation and discussion of class assignments. Extra credit can only be applied to quizzes.
16. Personal class notes can be submitted for 5% extra credit applied to your final exam, if the following criteria is met: (1) they are personal, (2) they include “key concepts” discussed in class, (3) include “how to do” statements for programming practices addressed in class, and (4) the listing of programs written in class with at least one personal comment.
17. Students could prepare a 15 to 50 minute presentation for a local high school for 5% extra credit to your final grade. Your audience should consist of at least a class of 15 students. The content of your presentation should include (a) why to study CS, (b) your experience as a CS student, (c) recommendations to be successful in CS, and (d) an example on how to design a relational database. This can be accomplished as a team project of 4 students max per presentation. If you decide to participate, you need to let me know before you give your presentation. At the end of the presentation, you will survey your audience to determine a percentage of students that might be interested in CS as a result of your project. You will deliver a report that includes name and location of the school selected. Additionally, date, time, class(es) involved and contact person of the school. Finally, pictures (video), PowerPoint slides, comments and survey results.
18. **Cheating:** Cheating on tests and programs will be dealt with very severely. You must make a diligent effort to prevent other students from seeing your test answers. Keep your paper covered and do not let your eyes wander during tests. You should not receive or give help to others on any program that goes beyond help in deciphering syntax errors. **Plagiarism:** Plagiarism is a form of cheating. Copying someone else's

program, changing a few lines, and turning it in as your own is plagiarism; thus, this is cheating. Each student is to write his or her own programs.

19. **Incompletes Policy:** Incompletes are not to be used as a shelter from potentially low grades. To take an incomplete, you must have "maintained a passing grade in the course until near the end of the course".
20. Topics or discussions unrelated to class, suggestions about the logistic of the course are all welcome outside class, but are considered disruptive during class and will affect negatively your "class contribution" grade, and may impact at the discretion of the instructor your final grade.
21. The use of Laptops is not allowed during lecture unless is used for note taking assistance. Therefore, checking e-mail and browsing the WWW during class is strictly forbidden and will severely penalize your class contribution grade.
22. **Cellular Telephones and Pagers in Class and Lab:** Along with your instructors, many students find these both distracting and rude. As a courtesy to all involved, please either turn off your cellular telephone or pager or disable the ring tone during lecture and lab. If you must use the phone, please leave the classroom or lab and go to a place that will not interrupt others.
23. **Students with Disabilities:** Any student with a documented disability who needs academic adjustments or accommodations is requested to speak with me during the first two weeks of class. Please bring your letter of verification from the Disability Services Office (WYLL D175 at 595-2372). All discussions will remain confidential.
24. **Accommodation for Religious Observances:** UW-Parkside policy requires that reasonable accommodation for a student's religious beliefs. Please notify your instructor within the first two weeks of classes about any scheduled class date that conflict with a religious observance.
25. **Team project:** There will be a team project that consists in the design and creation of a database for an organization. The instructor will assign students to teams. Projects will be assigned on the second week of classes.