CSC/CPE 365: Introduction To Database Systems
Spring 2008
Course Syllabus

March 19, 2008

Instructor:	Alexander Dekhtyar
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office:	14-215

What	When		Where
Lecture	TR	12:10 – 1:30pm	14-246
Lab	TR	1:40 – 3:-00pm	14-302 (Database Lab)
Final Exam	June 10 (Tuesday)	1:10 - 4:00pm	14-246

Office Hours

	When	Where
Tuesday	3:00pm - 4:00pm	14-215
Wednsday	9:00am - 12:00pm	14-215
Thursday	3:00pm - 4:00pm	14-215

Additional appointments can be scheduled by emailing the instructor at *dekhtyar@cs.uky.edu*.

Overview

This is an introductory database course devoted to study of the principles of operation of modern relational database systems. During the course the students will learn the basic concepts of data management, the principles of operation of relational DBMS (Database Management Systems) and the principles of building database applications on top of relational DBMS. The students will study the SQL query language for relational data, and will learn how to use it to construct software that relies on DBMS to manage its data. In addition, some theoretical aspects of database management will be covered, as well as an overview of the internal organization of the DBMS. Course labs will use Oracle DBMS.

Texbook

Required: *A First Course in Database Systems*, J.D. Ullman, J. Widom, 2007, 3nd Edition, Prentice Hall.
Recommended:

- *Oracle 10g Programming: a primer*, Rajshekhar Sunderraman, Addison Wesley, 2007.

Topics

The following will be covered in the course.

No.	Topic	Duration (weeks)
1.	Introduction: Data and Data Management	1
2.	Relational Model	1
3.	Relational Algebra, Calculus	1
4.	SQL	2-3
	Midterm	Topics 1 – 4.
5.	PL/SQL	2
6.	Overview of query processing and DBMS architechture	2
	Final Exam	Comprehensive

Most of the topics will be covered in the order specified above, but some variations are possible during the course.

Grading

Homeworks	5 - 15%
Labs	30 - 40%
Midterm Exam	20 - 25%
Final Exam	25 - 35%

I give relatively hard problems and take points off on exams. Because of this, the traditional 90-A, 80-B, 70-C grading schema does not work in my classes. Historically, the A/B cutoff has been around 80-85%, while the B/C cutoff has been around 67-70%.

Course Policies

Exams

There will be one midterm exam and a comprehensive final exam.

The midterm exam date is May 1 (Thursday), May 6 (Tuesday) or May 8 (Thursday)

Official date for the final exam: June 10 (Tuesday), 1:10pm.

Make-up exams will not be given, *unless there are extraordinary circumstances present and I am notified in advance.* The policy regarding the use of textbooks and notes will be announced at least one week prior to each exam.

Homeworks, Labs

The course will have 6-8 lab assignments, designed to let you test in practice what we have learned in class. Each lab assignment will span multiple lab sessions (typically 2 or 3). Each lab assignment is due by the end of lab period on the due date (unless specified otherwise). You are welcome to work on the lab assignments outside the lab hours, however, lab period attendance is mandatory. *You may only leave the lab period (a) with the express permission of the instructor if (b) the current assignment is complete and the next assignment has not been made available yet.* Some lab assignments can be done in pairs or groups of three, while others will be individual. Each lab assignment will state it explicitly.

Groups/pairings are to be formed by you - I will only intervene if someone cannot find a group/pair, or if there is a hard-to-resolve issue that requires my attentions. You are welcome to stay in the same group/pair for multiple lab assignments, or form a new group/pair for each non-individual assignment. All members of a group will recieve the same grade for the assignment.

In addition to labs, a number of paper-and-pencil homeworks will be assigned. Homeworks will typically consist of problems taken from database textbooks, or similarly styled problems.

Late Submissions

All assignments are due at classtime on the due date: homeworks - at the beginning of the class (with grace period extending to the beginning of the lab period); lab assignments - at the end of the lab period. Any deviations from these rules will be spelled out explicitly in the assignments.

Homework/lab assignments submitted later than indicated above will be considered *late submissions*.

If paper-and-pencil homework solutions are distributed on the due date of the homework, ***late homework submissions will not be accepted***. Otherwise, late homeworks can be submitted during next 24 hours for a 10-30% penalty (the exact amount will depend on the submission time and the specific circumstances). No homework submissions will be accepted afterwards.

Late lab assignment submissions can be turned in before or at the beginning of the next lab period for a 10-30% penalty (the exact amount will depend on the submission time and the specific circumstances[1]). No lab assignment

[1] The penalty will be larger if the gap between the two lab periods includes a weekend and smaller otherwise

submissions will be accepted after that.

Communication

The class will have an official mailing list. The email address for the mailing list is *cpe-365-01-2084@calpoly.edu*. All students enrolled in the class are automatically subscribed to the mailing list.

I encourage questions during classtime and questions via email. My answers to email questions may be broadcast to the entire class via the mailing list, if the answer may be relevant to everyone (e.g. a correction in a text of a handout, or a clarification of a homework problem), and may also appear on the web page. The questions can also be posted to the mailing list directly. The mailing list will also be used for all annoucements related to the course. It is your responsibility to read your class-related email. Failure to read email posted to cs405001 mailing list cannot be used as an excuse in the class.

Web Page

Class web page can be found at

http://www.csc.calpoly.edu/∼dekhtyar/365-Fall2007

Through this page you will be able to access all class handouts including homeworks, project information and lecture notes (should the latter be written).

Links to web pages with additional information (such as CSLAB database support page) and important notes and announcements will also be posted.

Academic Integrity

University Policies

Cal Poly's Academic Integrity policies are found at

http://www.academicprograms.calpoly.edu/academicpolicies/Cheating.htm

In particular, these policies define *cheating* as (684.1)

> "*... obtaining or attempting to obtain, or aiding another to obtain credit for work, or any improvement in evaluation of performance, by any dishonest or deceptive means. Cheating includes, but is not limited to: lying; copying from another's test or examination; discussion of answers or questions on an examination or test, unless such discussion is specifically authorized by the instructor; taking or receiving copies of an exam without the permission of the instructor; using or displaying notes, "cheat sheets," or other information devices inappropriate to the prescribed test conditions; allowing someone other than the officially enrolled student to represent same.*"

Plagiarism, per University policies is defined as (684.3)

> "... the act of using the ideas or work of another person or persons as if they were one's own without giving proper credit to the source. Such an act is not plagiarism if it is ascertained that the ideas were arrived through independent reasoning or logic or where the thought or idea is common knowledge. Acknowledgement of an original author or source must be made through appropriate references; i.e., quotation marks, footnotes, or commentary."

University policies state (684.2): "Cheating requires an "F" course grade and further attendance in the course is prohibited." (appeal process is also outlined, see the web site above for details.). Plagiarism, per university policies (684.4) can be treated as a form of cheating, although a level of discretion is given to the instructor, allowing the instuctor to determine the causes of plagiarism and effect other means of remedy. It is the obligation of the instructor to inform the student that a penalty is being assessed in such cases.

Course Policies

All homeworks are to be completed by each student **individually**. Lab assignments are to be completed by the appropriate units (individual, pair, group), and no code/solution-sharing between units is permitted. Students are encouraged to discuss class content among themselves but NOT in a manner that constitutes plagiarism and cheating as defined above (e.g., you can solve together a problem from the textbook that had not been assigned in the homework, but you should solve assigned problems individually).