INSTRUCTIONS: Obtain 2 copies of this syllabus, using a copier if necessary. Put your initials in each of the boxes printed in the syllabus. Sign your name where indicated and legibly print your name below your signature. Return hard copy to me by September 7. If you do not return it I will not grade your work. If you return it late, you lose 5 points from your final average.

CS4/550 Database Concepts

SYLLABUS Fall 2006

Instructor: Irwin Levinstein. Office: 3108 E & CS Bldg. Phone: 683-3915, please leave message. Email: all email for this course should be initiated at http://www.cs.odu.edu/~ibl/cgi_bin/email450att.cgi. Since this is a somewhat internet based course, much of our communication will be by email or message board. You can use email to arrange an appointment if you wish to see me in person. US Mail: Irwin Levinstein, Computer Science Department, Old Dominion University, Norfolk VA 23529.


While the course includes some instruction in the languages SQL and PL/SQL, students are basically expected to master the material on their own in the course of programming assignments. It is recommended that students find congenial books on the languages to supplement the information provided in the textbook, in course lectures, and on the web. Nilesh Shah, Database Systems Using Oracle, Prentice Hall, has been ordered by the bookstore but you may prefer others. Two introductory level books that you might consider are Alex Morrison and Alice Rischert Oracle SQL: interactive workbook and Benjamin Rosenweig and Elena Silvestrova, Oracle PL/SQL: interactive workbook. Students have also found Scott Uman, Oracle9i PL/SQL Programming, 2nd Edition, and its successors, useful, but it does not cover SQL. Another, that covers both SQL and PL/SQL in detail is Rick Greenwald, et.al., Professional Oracle Programming. Whatever book you choose for SQL should be oriented to Oracle SQL which has features differing from standard SQL and provide information on the SQL*PLUS interface for entering SQL commands.

Goals: If you get an A in this course, you will be able to explain the basic concepts of database architecture, data storage, and the relational database model. You will be able to express queries in relational algebra, SQL, and ordinary English, and be able to embed SQL queries in PL/SQL and C or C++ programs. You will be able to design a relational database. You will be able to understand and apply the concepts and techniques of concurrency control and database recovery. If you get less than an A you will have some deficiencies in the above-mentioned areas.

Schedule: The official course schedule is available on the web at http://www.cs.odu.edu/~ibl/450/fall06/sched/schedule.xml.

Cheating: Students may form groups of up to size 2 to work on SQL, PL/SQL and ESQL programming assignments and groups of up to size 4 for the graduate student assignment but must work individually on all other assignments unless announced in class and/or on the course web page. Graduate students and undergraduate
students may not be members of the same group.

If you are part of a group, you may discuss anything to do with that assignment ONLY with another group member or the instructor or the TA for the class. If you are NOT part of a group, you may NOT discuss any aspect of the assignment with anyone except the instructor or TA. Review questions are to be answered without assistance from others. Collaborating with others, whether students or not, outside these limits is considered an honor violation. Possession of solutions from earlier semesters is also an honor's violation.

You are expected to protect your work. If two students or two groups submit similar work, both will suffer penalties for cheating. Two ways to protect your work are 1) do not put your work in your public_html directory tree and 2) put the following statement in your unix .cshrc file: umask 27.

From time to time I will attempt to read assignments for this course in your Unix (Z Drive) account. If I am able to read them, that demonstrates that you are making your work available to others to copy. You will be warned and thereafter penalized if I find that you have not corrected the problem.

Communications: It is your responsibility to actively seek out course information. You should visit the course web page at least three times a week. You should read your email at your ODU CS account at least four times a week. You are responsible for knowing about all course related matters announced on the web page or via email.

- **email:** initiate all course email at http://www.cs.odu.edu/~ibl/cgi_bin/email450att.cgi.
- **web page:** http://www.cs.odu.edu/~ibl/450/fall06

To encourage you to read your mail and to visit the web page, requests will be made from time to time for you to respond to certain announcements within a given time. The announcements will be made via email or via the web page or both. If you fail to respond as requested you may lose points from your total course score.

Grades: Your grade will be based on **positive points** earned from review questions, several assignments and two examinations and **negative points** earned by failing to complete self-assessments, failing to respond to email and web page requests for a response, or failing to protect your work as described above. The review questions altogether will count as one assignment. The assignments will count 60% of the **positive points** of your grade. The examinations will count 40% of the **positive points** of your grade. Both exams will be curved. Some assignments may possibly be curved. The final score will not be curved. Grading scale: [0-60): F; [60-68.5): D; [68.5-70): D+; [70-78.5): C; [78.5-80): C+; [80-88.5): B; [88.5-90): B+; [90-100]: A. Since the graduate student grade scale does not include any D grade, a D or D+ for a graduate student will be reported as an F.

Note: [x-y) means the interval from and including x to but not including y.

**Review Questions:** Review Questions have been assigned for most chapters (see schedule). The answers are due by the dates in the schedule. Answers must be submitted via the web forms provided for that purpose.

You are not to collaborate with others on the review questions. It is a violation of the honor code to do so.

It is important that you answer the review questions in your own words and within the length limits. Answers copied from the book will lose credit. Answers which exceed the allowed length will not be accepted. **Do not answer by copying from the book. Use your own words and summarize.**

**Self Assessments:** Many self-assessments are provided on line to aid in understanding the concepts of the course. They are designed so that you can retake them as often as
you like. It is your responsibility to complete these self-assessments. You get credited with completing one when you earn a score of 100% and submit it. **If you complete fewer than 90% of the self-assessments, you may have up to one assignment's worth of points deducted from your course score.** From time to time, self-assessments are added to those initially announced in the schedule. These will be announced on the course web page. **It is your responsibility to know about them.**

**Presentations:** Most of the material which is presented in class lectures in the form of PowerPoint™ presentations is available for you in the form of PDF files. You will need a PDF viewer such as Adobe Acrobat Reader™ to view the presentations. The files will be downloadable from the course web page. You will need an unzipping utility such as WinZip™ to retrieve them once they are downloaded.

**Assignments:** Students in CS450 will have 4 assignments in addition to review questions. The CS450 students’ assignment average will be computed by adding their best assignment grade to their total assignment grade before dividing by 5 (best grade counts twice). This benefit is not available to graduate students in CS550. CS550 students will have 5 assignments. The level of design and programming in the fifth assignment will go beyond that required of CS450 students. The assignments are briefly described in the schedule. **Total value of the assignments, including review questions: 60% of the positive points of your grade.**

**Tests:** There will be two tests, one at mid-term and one at the end of the semester. The two tests will count equally. **Total value of the tests: 40% of your average.** Tests will be given at proctored locations. You must take the tests when and where scheduled. CS550 students will have examination questions which are not required of CS450 students.

**Honor Code:** If you don’t know what this is, find out! You signed it. I enforce it. Strictly.

**Late Material:** No late work will be accepted or graded without prior agreement or extenuating circumstances (as defined by the instructor).

**Attendance:** Attendance in class is optional except for examinations. You are responsible for knowing everything announced or presented in class whether you were present or not. If you miss a class, it is your responsibility to find out what you missed. You should find out from someone other than the instructor.

I have read this syllabus to this point and have read carefully the paragraphs marked with boxes. I have initialed each box to indicate that I have read and understood the paragraph next to it.

Signed __________________________

Name (print): __________________________

Computer Science Email: __________________________