CS450/550 Database Concepts
SYLLABUS Fall 2020

Instructor: Sampath Jayarathna.
Office: 3109 E & CS Bldg.
Phone: 683-7787, please leave a message.
Email: sampath@cs.odu.edu
You can use email to arrange an appointment if you wish to see me via Zoom outside office hours.
Office Hours: Tuesday 2-3pm (and by appointment).


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 2e has been ordered by the bookstore but you may prefer others. Two introductory level books that you might consider are Alice Rischert, Oracle SQL By Example and Benjamin Rosenzweig and Elena Silvestrova Rakhimov, Oracle PL/SQL By Example. Students have also found Michael McLaughlin, Oracle Database 11g PL/SQL Programming, useful, but it does not cover SQL. 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.

Books for the course are available at the campus bookstore https://www.odu.edu/bookstore. When the course is offered via Distant Learning, books are also supposed to be available at http://www.odudlbooks.com.

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 PHP 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 and be less prepared for those courses for which this course is a prerequisite.

Schedule: The official course schedule is available on the web at https://cs450.cs.odu.edu/~cs450/450/latest/sched/schedule2.xml

Cheating: Students may form groups of up to size 2 to work on Relational Algebra, SQL, PL/SQL and PHP programming assignments as well as the functional dependency assignment and groups of up to size 4 for the graduate student assignment but must work individually on all other assignments and
homework 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, or get help on, 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 or get help on any aspect of the assignment with anyone except the instructor or TA. Review questions are to be answered without assistance from others. In no case may you use materials from other students in previous semesters or solutions from online resources in the preparation of any work to be submitted. All work to be submitted must be entirely produced by you or your group. Collaborating with others, whether students or not, outside these limits is a violation of the course rules. Possession of solutions from earlier semesters is also a violation. If you feel like you have an issue that needs clarification, feel free to contact me.

You are expected to protect your work. If two students or two groups submit similar work, both will suffer penalties for cheating.

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.

• Discussion Forum: All questions will be fielded through class discussion forum. The primary benefit is that for many questions everyone can see the answer and other students can answer as well. Additionally, I expect you to actively participate in online discussions.

• Email: If you send email to me, please be sure to include your name and the course number in the body of the e-mail. You should also use an appropriate subject line that looks like “CS450-Assignment 01” etc. Failure to follow these guidelines may result in delayed response. Again, email should only be used in rare instances, I will probably point you back to discussion forum if you have a question related to course materials and/or relevant to other students in the class.

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 may 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. They are accessed via the course Schedule page or from the module Assignments tab in the PLE. 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 course rules to do so.

Self-Assessments: Many self-assessments are provided online to aid in understanding the concepts of the course. The self-assessments are accessed via the course Schedule page or from the module Assignments tab in the PLE. 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 video 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.

Videos: High quality videos of virtually the entire lecture portion of the course may be accessed via the course [Schedule] page or from the module [Topics] tab in the PLE. You are expected to watch all the videos during the first week of each module.

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 as well as the first three assignments will go beyond that required of CS450 students. If the assignment grades are 'curved' the curve will be more generous for CS450 students than for CS550 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.** If the test grades are 'curved' the curve will be more generous for CS450 students than for CS550 students. The tests are likely to be delivered via Blackboard outside normal class meeting times.

Honor Code: By registering for classes at ODU you have agreed to the following Honor Pledge **I pledge to support the honor system of Old Dominion University. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of the academic community, it is my responsibility to turn in all suspected violators of the honor system. I will report to Honor Council hearings if summoned.**

Classroom Behavior: As this is an online course, the only times we may meet as a class are when midterm or final exams are offered at a campus location. In that case the following apply: cell phones off or on vibrate and not to be used; students to be timely to the test; no conversation during the test; no offensive language, gestures and the like. Violations are considered to be violations of the Code of Student Conduct.

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

Attendance: As this is a distant learning web-based class, there are no class meetings. However you are expected to keep up with the work assigned and to meet all deadlines. You are responsible for knowing everything announced on the course web sites whether you saw it or not. Examinations must be completed on the dates assigned.

I have read this syllabus in its entirety 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. By signing I acknowledge that I agree to abide by the course requirements.

Signed ____________________________________

Typing your name above constitutes signing this document and acknowledging that you have read all the parts thereof.