Winter 2010

CS 302-01: Introduction to Oracle/SQL Databases

Karen Meyer
Wright State University - Main Campus, karen.meyer@wright.edu

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SYLLABUS

CS302-01 Introduction to Oracle/SQL Databases
Department of Computer Science and Engineering
College of Engineering and Computer Science

Winter 2010

General Course Information

Senior Lecturer: Karen Meyer
Office Location: 344 Russ Center
Class Times: TR 10:25am – 12:05pm
Office Hours: TR 9:00 – 10:00 am and by appointment
Advising Hours: You are welcome to see me during advising hours.
Please call 775-5131 to make an appointment.
The advising office is located in 303 Russ

Office Phone: 775-5131
E-mail: karen.meyer@wright.edu
Please contact me using this e-mail address (rather than the WebCT mail)

Course Web site: http://wisdom.wright.edu (WebCT)

Course Description: Relational client server database design and access techniques. Includes building database tables, writing SQL and PL/SQL statements and programs and developing user interfaces using forms and reports.

Prerequisite: CS141 or CS208 or CS 240 or programming experience

Textbook: Conrad, Rocky, Morrison, Mike and Joline, Guide to Oracle 10g, Course Technology, ISBN #0-619-21629-8. The book is required, please bring it to class.

Software: A complete installation of Oracle 10g is available in 346 RC and in 152 C RC. Instructions for downloading Oracle software for personal use can be found on WebCT.

Course Objectives

1) To be able to design, create and maintain a relational database using SQL
2) To understand the purpose of an entity-relationship model and use it to design a relational database
3) To be able to normalize a database to 3 NF
4) To be able to develop a database application using object oriented client development tools
5) To learn critical-thinking techniques for solving unstructured problems by identifying and analyzing an information systems problem and designing a working database system to solve the problem
6) To understand the PL/SQL procedural programming language and how it is integrated with SQL commands

Grading and Evaluation Criteria

- 2 Exams – Exam 1 - 26 %, Exam 2 – 26 %
  Examinations are a combination of multiple-choice, true/false and short answer. They will be administered using WebCT.
- 14 % of the grade is based on completing the end of chapter cases and lab. project assignments. You will be given some time to work on the projects during the class/lab.time.
- 10 % - Quizzes. There will be approximately 4 quizzes. Two will be announced. You may drop the lowest quiz score.
- 24 % - Final Project. You will complete a comprehensive database project where you will design and develop the tables and user interface for a specific business scenario.

You will have card access to this lab and may use the lab when there is not another class in session. Link to 346 Class/Lab Schedule: http://www.cs.wright.edu/cse/students/lab-schedules.shtml

Academic Integrity

It is the policy of Wright State University to uphold and support standards of personal honesty and integrity for all students consistent with the goals of a community of scholars and students seeking knowledge and truth. Furthermore, it is the policy of the university to enforce these standards through fair and objective procedures governing instances of alleged dishonesty, cheating, and other academic misconduct. The following recommendations are made for students:

1. Be honest at all times.

2. Act fairly toward others. For example, do not disrupt or seek an unfair advantage over others by cheating, by talking, or by looking at other individuals' work during exams.

3. Take group as well as individual responsibility for honorable behavior. Collectively, as well as individually, make every effort to prevent and avoid academic misconduct, and report acts of misconduct that you witness.

4. Do not turn in the same work in more than one class unless permission is received in advance from the professor.
5. Unless permitted by the instructor, do not collaborate with others on graded course work, including in class and take home tests, papers, or homework assignments.

6. Know what plagiarism is and take steps to avoid it. When using the words or ideas of another, even if paraphrased in your own words, cite the source(s).

7. Know the policy—ignorance is no defense. If you have any questions regarding academic misconduct, contact your instructor. Those who violate campus rules are subject to disciplinary action.

This information was obtained from Wright State’s Office of Judicial Affairs. Complete information may be referenced at: http://www.wright.edu/students/judicial/integrity.html

Course and Laboratory Policies

1. From this lab, you may only access Internet sites related to this course. Refer to the Responsible Use of Information Technology Guidelines for complete information.
   http://www.wright.edu/cwis/policies/itpolicy.html

2. If you miss class, you are responsible for getting assignment information. You are welcome to visit me during office and advising hours. Please check WebCT email and discussions for notes and announcements.

3. 50% will be deducted per day for late assignments. Assignments, cases and discussions done in class may not be made up. Soft points will be tracked and recorded for unassigned in-class work.

4. If you know that you will be absent on an exam day, please contact me prior to the exam so you may take the exam early. You may not take quizzes early or make them up.

5. Please turn off your cell phone before entering the classroom.

6. Before you leave the lab, perform a system shutdown and power off the PC and monitor. Make sure to eject your thumb drive.

Drop/Withdraw Notes:

Jan 19 Last day to drop classes or withdraw and receive 70% refund of fees.

Jan 22 Last day for ALL students to drop a class without a grade

Feb 19 Last day for ALL students to drop a class with a grade of W (not calculated in grade point average). Students with holds must come to the registration windows before 5 pm to drop or withdraw.
**Tentative Course Schedule**

Complete lab assignment information is posted on WebCT. The lab assignments due dates will be listed on WebCT. Some topics will be omitted from the selected chapters. See your PowerPoint slides for the topic outline.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Chapter Readings</th>
<th>Assignments</th>
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<tbody>
<tr>
<td><strong>Week One: January 5th</strong>&lt;br&gt;Course Introduction, Begin Introduction to Databases</td>
<td>Chapter 1</td>
<td><strong>In Class:</strong> Review Scenario Databases, Handout for Assignment 1 - Normalization</td>
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<tr>
<td>Continue Introduction to Databases</td>
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<tr>
<td><strong>Week Two: January 12th</strong>&lt;br&gt;Getting familiar with SQL Creating and Modifying Database Tables</td>
<td>Chapter 2</td>
<td><strong>Assignment:</strong>&lt;br&gt;Lab 1: see WebCT</td>
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<tr>
<td><strong>Week Three: January 19th</strong>&lt;br&gt;Using SQL Queries to Insert, Update, Delete and View Data Retrieving Data From A Single Database Table</td>
<td>Chapter 3a</td>
<td>Lab 2: see WebCT (30 pt lab – start early!)&lt;br&gt;• Note that there is 1 lab for all 3 Chapter 3 sections (i.e. a,b,c)</td>
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<tr>
<td>Quiz 1 January 21st, Chs. 1 and 2</td>
<td>Chapter 3b</td>
<td></td>
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<tr>
<td><strong>Week Four: January 26th</strong>&lt;br&gt;Retrieving Data From Multiple Database Tables</td>
<td>Chapter 3c</td>
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<td>Finish Chapter 3/Review</td>
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<tr>
<td><strong>Week Five: February 2nd</strong>&lt;br&gt;Exam 1 – Tuesday, Feb. 2nd (Chs1,2,3)</td>
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<tr>
<td>Introduction to PL/SQL, Lesson A</td>
<td>Chapter 4</td>
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<tr>
<td><strong>Week Six: February 9th</strong>&lt;br&gt;Intro. to PL/SQL, cont. Lesson B</td>
<td>Chapter 4</td>
<td>Lab 3: see WebCT</td>
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<tr>
<td>Intro. to Forms Builder</td>
<td>Chapter 5a</td>
<td></td>
</tr>
<tr>
<td><strong>Week Seven: February 16th</strong>&lt;br&gt;Forms Builder, cont.</td>
<td>Chapter 5b</td>
<td>Lab 4: see WebCT</td>
</tr>
<tr>
<td>Forms Builder, cont.</td>
<td>Chapter 5c</td>
<td></td>
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</tbody>
</table>
Connecting to the database from WSU Labs:

To start SQL*Plus and log on to the database:

1. Click **Start** on the Windows taskbar, point to **Programs** or **All Programs**, point to **Oracle – DevSuiteHome1**, point to **Application Development**, and then select **SQL*Plus**. The Log On dialog box opens and requests your user name, password, and host string.

2. Type your assigned **user name** in the **User Name** field, press **Tab**, type your assigned **password** in the **Password** field, type `cseora10` in the **Host String** field. then click **OK**. The SQL*Plus program window opens, and the SQL prompt appears.

**SQL Labs Turn In Procedure:**

All SQL labs should be spooled to a file. This means that the file will contain the SQL commands as well as the system response. **In the file that you turn in, I need to see the system response as well as your SQL statements.**

To create the spool file:

- `SPOOL d:filename.lst;
- ...... type commands here......
- SPOOL OFF;`

Note that d indicates the drive letter (example A:) It will be the drive letter assigned to your thumb drive, diskette or the hard drive. Note that the file is not written until after the SPOOL OFF command is executed.

Alternative to spooling: Copy the executed code and results into a text editor (like Notepad) and save the file.