Class Meetings

This is a distance course, as opposed to a self-paced learning course. This means that we have scheduled lecture topics and assignments for each week of the semester. I do this to ensure that everyone is learning the same material at the same time. Some of you may be inclined to read ahead and view lectures ahead of time based on your schedules and time availability. If you choose to do that, please keep in mind that I will be focusing on the material that is scheduled for the week and that our assignments are planned to be made available and due at a pre-determined time.

Optional Textbooks  (These are suggested books for reference purposes only, they are not required for any homework assignments or exams. Newer editions of these books will also have similar information but the chapter numbers may differ):


Prerequisites and Requirements

• Prerequisite: Database Management, 95-703 or exemption
• Requirement: Students must have a PC with Personal Oracle 11g Express installed on it. (Another option offered this semester is The Heinz School Virtual Lab which has Oracle 11g available).
Course Description

This course focuses on advanced database programming and functionality. The focus is on extending the theoretical structures and concepts learned in the Database Management course. We will use Oracle’s Procedural Language (PL/SQL) to develop database objects to implement real-world business requirements within the database thereby increasing the functionality and data integrity capabilities of the given data structures in relation to the business process(es) in question. The emphasis will be on developing database procedures, functions, and triggers while enforcing good program design and focusing on adherence to business processes. In addition, there is a component related to working with external datasets from within the Relational Database Management System (RDBMS). In this component, tools and methods will be introduced that allow for the integration of heterogeneous data sets that mesh with the existing data structures within the RDBMS.

Schedule

This class begins on Monday, May 16, 2016. That is the week set for viewing the first lecture as noted in the schedule below. Subsequent lectures will be viewed weekly after that.

NOTE: Please keep in mind that we do not follow streaming lecture order and not all lectures will be used for this mini, so please be careful to note which lecture topic we will be viewing each week and to view the appropriate lecture, regardless of its order in the campus course.

NOTE 2: Our assignment/lab schedule is also different than that of the streaming lectures, so be sure to use the syllabus on blackboard as reference for the class.

NOTE 3: This schedule is subject to change. Any changes in schedule will be posted to the blackboard website as announcements.

Weekly Schedule

<table>
<thead>
<tr>
<th>Week #/Beginning</th>
<th>Lecture</th>
<th>Suggested Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 / May 16</td>
<td>Introduction to PL/SQL</td>
<td>MM, Ch. 4</td>
</tr>
<tr>
<td>2 / May 23</td>
<td>PL/SQL, Part 2 PL/SQL Lab</td>
<td>MM, Ch. 9</td>
</tr>
<tr>
<td>4 / May 30</td>
<td>Oracle Server Triggers and Job Scheduling in Database</td>
<td>MM, Ch. 9</td>
</tr>
<tr>
<td>5 / Jun 6</td>
<td>Server Triggers Lab</td>
<td></td>
</tr>
<tr>
<td>6 / Jun 13</td>
<td>Working with Large Data Sets</td>
<td></td>
</tr>
</tbody>
</table>
A few items about the roles in this course:

- Keep in mind throughout the semester that while we are working from some of the streamed lectures, the course schedule, assignments, grading and general course policies are specific to this semester and may be different than what you hear the professor discuss in the lectures. Please focus only on the material in the lectures and refer to the syllabus and schedule for this distance course to determine which lecture is the week’s focus and what assignments are coming due.

- The Instructor and TA in this course are here for a few purposes: to guide you through the course and answer questions that you may have from the lecture material. To assist with and answer questions about the homework assignments. To answer general questions about the material, even if it is outside of the bounds of the lecture material. Please be sure to make use of our availability, we are here to help you learn!!

Labs

Lab handouts will be available in the LECTURE section of the web site in the lecture folder of the related topic/week. Work through lab handouts after watching the appropriate lecture.

Assignments

There will be three assignments based on the lectures and your work with the Oracle tools.

The following is a list of dates for each assignment (these are planned dates, if there are any changes you will be notified during the semester):

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Date Assigned (week of)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>May 23&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
<tr>
<td>2</td>
<td>May 30&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>3</td>
<td>June 13&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
</tbody>
</table>
Grading

Grading for this course is based on the three homework assignments.

While there is no formal assessment of participation in class, regular participation is encouraged, expected, and noted. In the distance format class, most participation is done via the discussion groups. I will create a discussion group topic for each week’s lecture and for each homework assignment as well as a few that will remain throughout the semester for general course questions, oracle technical questions and assignment-specific questions.

Please post any questions, thoughts, insights, experiences, etc. that you have related to the material to share with the class. The TAs and I will monitor the discussion groups regularly to respond to any posting. Since we do not have the in-class interaction of a local course, the discussion groups are the best method we have to learn from one another.

Final percent grades will be based on percentages earned on the assignments. Final letter grades will be assigned based on final grade percentage based on the following model:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>96.67% – 100%</td>
<td>A+</td>
</tr>
<tr>
<td>93.34% – 96.66%</td>
<td>A</td>
</tr>
<tr>
<td>90% – 93.33%</td>
<td>A-</td>
</tr>
<tr>
<td>86.67% – 89.9%</td>
<td>B+</td>
</tr>
<tr>
<td>83.34% – 86.66%</td>
<td>B</td>
</tr>
<tr>
<td>80% – 83.33%</td>
<td>B-</td>
</tr>
<tr>
<td>76.67% – 79.9%</td>
<td>C+</td>
</tr>
<tr>
<td>73.34% – 76.66%</td>
<td>C</td>
</tr>
<tr>
<td>70% – 73.33%</td>
<td>C-</td>
</tr>
</tbody>
</table>

Below 70% is a failing grade.

The average grade in an elective course is expected to be approximately 3.6-3.67 (out of 4), equivalent to an A-.

This expected average reflects the degree of difficulty and/or breadth of coverage for a core course. However, if all students earn at least 90% and above in this course, then all will receive grades of ‘A-‘ or above.

Regardless, please realize that a grade of ‘B ‘is considered an acceptable grade at Carnegie Mellon. Also note that a grade of ‘C-‘ is considered a passing grade.
Late Assignment Policy
All assignments -- individual, lab, and group -- must be submitted by the due date/time noted on the assignment posting. No assignment submitted after the deadline will be awarded points, unless the student contacted the instructor at least 48 hours prior to the due date/time. Any requests for extension will be handled on a case-by-case basis. Extensions are only allowed in cases of extenuating circumstances. This does NOT include work or travel scheduling issues.

Policy on Cheating and Plagiarism
The work students submit should reflect individual effort. Students are encouraged to discuss course topics with each other, but the final work product must reflect each individual student’s knowledge and effort, not his/her classmate’s.

Cheating includes but is not necessarily limited to:

1. Submission of work that is not the student's own for papers, assignments, lab exercises, or exams.
2. Submission or use of falsified data.
3. Theft of or unauthorized access to an exam, current or previous.
4. Use of an alternate, stand-in or proxy during an examination.
5. Use of unauthorized material including textbooks, notes or computer programs in the preparation of an assignment or during an examination, unless otherwise indicated.
6. Supplying or communicating in any way unauthorized information to another student for the preparation of an assignment or during an examination.
7. Collaboration in the preparation of an assignment, unless expressly allowed by the instructor.
8. Plagiarism which includes, but is not limited to, failure to indicate the source with quotation marks or footnotes where appropriate if any of the following are reproduced in the work submitted by a student:
   a. A graphic element.
   b. A proof.
   c. A phrase, written or musical
   d. Specific language.
   e. An idea derived from the work, published or unpublished, of another person.
   f. Program code or algorithms.

Penalties for Cheating
The penalty for cheating on an individual assignment is the loss of all assignment points for assignments already submitted as well as the inability to earn any future assignment points.

All incidents of cheating are reported to the Dean. Additional penalties may be imposed.