Syllabus

Course Number: MSCD 650
Course Title: PL/SQL Programming

Course Description:
Studies advanced SQL and SQL*Plus concepts and how to write PL/SQL procedures, functions and packages. Topics include extending statements to include Set Operators, and building correlated sub queries and hierarchical queries. Student creates and manages PL/SQL program units and database triggers as a basis for complex application development. Prerequisite(s): MSCD 610.

Prerequisite Courses:
MSCD 610

Course Outcomes:
Upon completion of this course, learners should be able to:
1. Analyze and perform SQL Queries in a given database for accurate query results.
2. Create programming code for PL/SQL blocks on the Oracle server within the Academic Research Network (ARNe) environment.
3. Code decisions and repetitive actions in PL/SQL.
4. Explain and perform the steps for exception handling.
5. Demonstrate the differences between procedures and functions.
6. Create and test triggers to update data based on specific occurrences.
7. Explain how to avoid the common error of the mutating table.
8. Create database tables, PL/SQL blocks, triggers, functions, procedures, and packages based on a scenario provided in the Final Exam.

Course Materials:

Required Texts:

Technology Tools:
The web-based Citrix technical environment for lab work can be found at this URL: http://myregisapp.regis.edu/Citrix/StoreWeb/
The login ID and password for the Citrix environment are your Regis Net credentials (e.g. Regis InSITE credentials).

Your instructor will provide you with user documentation within your Worldclass online course that will describe how to use the Citrix Lab Environment. Your instructor will also provide you with a database user ID/password or other database login instructions.

Optional Materials:


Purdue Online Writing Lab (OWL), http://owl.english.purdue.edu/owl/resource/560/01/


Pre-Assignment:

Online Format:

See Assignments table below.

Classroom-based Format:

None

Course Assignments and Activities:

Note: In the table below, the Review Questions and Advanced Review Questions are used as Knowledge Checks for you to test your knowledge of the readings assigned each week. Though they are automatically scored, your score for each is NOT included as part of your course grade. See course content for more details.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Readings</th>
<th>Activities Assignments and Associated Percentage</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to PL/SQL</td>
<td>Casteel Chapter 1:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Review Presentations/Notes</td>
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<tr>
<td></td>
<td></td>
<td>• <strong>Introductions—required by Wednesday of Week 1</strong></td>
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<tr>
<td></td>
<td></td>
<td>• Discussions (3%)</td>
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<tr>
<td></td>
<td></td>
<td>• Setting up your virtual Lab</td>
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<tr>
<td></td>
<td></td>
<td>• Review Questions 1-14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Labs/Hands-On 1-1 through 1-4 (4%)</td>
</tr>
</tbody>
</table>
|   | PL/SQL Processing | Casteel Chapters 2 & 3 | Casteel Chapter 2:  
  • Review Presentations/Notes  
  • Discussion (3%)  
  • Review Questions 1-15  
  • Advanced Review Questions 1-5  
  • Labs/Hands-On 2-1 through 2-8 (4%) |
|---|------------------|------------------------|---|
| 2 | PL/SQL Procedures | Casteel Chapters 4 & 5 | Casteel Chapter 3:  
  • Review Presentations/Notes  
  • Discussion (3%)  
  • Review Questions 1-15  
  • Advanced Review Questions 1-5  
  • Labs/Hands-On 3-1 through 3-8 (4%) |
| 3 | PL/SQL Functions  | Casteel Chapter 6      | Casteel Chapter 4:  
  • Review Presentations/Notes  
  • Discussion (3%)  
  • Review/Advanced Questions 1-15  
  • Advanced Review Questions 1-5  
  • Labs/Hands-On Assignments: 4-1 through 4-8 (4%) |
| 4 | PL/SQL Packages and Dependencies | Casteel Chapter 7 & 8 | Casteel Chapter 5:  
  • Review Presentations/Notes  
  • Discussion (3%)  
  • Review Questions 1-15  
  • Advanced Review Questions 1-5  
  • Lab/Hands-On Assignments: 5-1 through 5-9 (4%) |
| 5 |                  |                        | Casteel Chapter 6:  
  • Review Presentations/Notes  
  • Discussion (3%)  
  • Review Questions 1-15  
  • Advanced Review Questions 1-5  
  • Lab/Hands-On Assignments: 6-1 through 6-8 (4%) |
|   |                  |                        | Casteel Chapter 7:  
  • Review Presentations/Notes  
  • Discussion (3%)  
  • Review Questions 1-15  
  • Advanced Review Questions 1-5  
  • Labs/Hands-On Assignments: 7-1 through 7-8 (4%) |
|   |                  |                        | Casteel Chapter 8:  
  • Review Presentations/Notes  
  • Discussion (3%)  
  • Review Questions 1-20  
  • Advanced Review Questions 1-5  
  • Lab/Hands-On Assignments: 8-1 through 8-8 (4%) |
| 6 | PL/SQL Triggers | Casteel Chapter 9 | Casteel Chapter 9:  
• Review Presentations/Notes  
• Discussion (3%)  
• Review Questions 1-19  
• Advanced Review Questions 1-5  
• Lab/Hands-On Assignments: 9-1 through 9-8 (4%) |
|---|-----------------|-------------------|---|
| 7 | Oracle Packages | Casteel Chapter 10 | Casteel Chapter 10:  
• Review Presentations/Notes  
• Discussion (3%)  
• Review Questions 1-15  
• Advanced Review Questions 1-5  
• Lab/Hands-On Assignments: 10-1 through 10-11 (4%) |
| 8 | XML DB and XMLQUERY | Final Exam | W3C XML Tutorial –  
http://www.w3schools.com/xml/default.asp  
W3C DTD Tutorial -  
http://www.w3schools.com/dtd/default.asp  
• Review Presentations/Notes about Oracle’s XML DB  
• Review Tutorials  
• Discussion (optional)  
• Complete any resubmissions for Labs/Hands-On Assignments.  
• Final Exam (30%) |

| TOTAL | 100% |

CC&IS Grading Scale

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<tr>
<th>Letter Grade</th>
<th>Percentage</th>
<th>Grade Point</th>
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<tbody>
<tr>
<td>A</td>
<td>93 to 100</td>
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<tr>
<td>A–</td>
<td>90 to less than 93</td>
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<tr>
<td>B+</td>
<td>87 to less than 90</td>
<td>3.33</td>
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<tr>
<td>B</td>
<td>83 to less than 87</td>
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<tr>
<td>B–</td>
<td>80 to less than 83</td>
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<td>C+</td>
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<tr>
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<tr>
<td>D–</td>
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</table>
Additional information about grading can be found in the latest edition of the University Catalog, available at [http://www.regis.edu/Academics/Course%20Catalog.aspx](http://www.regis.edu/Academics/Course%20Catalog.aspx).

**CC&IS Policies and Procedures**

Each of the following CC&IS Policies & Procedures is incorporated here by reference. Students are expected to review this information each term, and agree to the policies and procedures as identified here and specified in the latest edition of the University Catalog, available at [http://www.regis.edu/Academics/Course%20Catalog.aspx](http://www.regis.edu/Academics/Course%20Catalog.aspx) or at the link provided.

- The CC&IS Academic Integrity Policy.
- The Student Honor Code and Student Standards of Conduct.
- Incomplete Grade Policy, Pass / No Pass Grades, Grade Reports.
- The Information Privacy policy and FERPA. For more information regarding FERPA, visit the [U.S. Department of Education](https://www.ed.gov).
- The HIPPA policies for protected health information. The complete Regis University HIPAA Privacy & Security policy can be found here: [http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx](http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx).

The CC&IS Policies & Procedures Syllabus Addendum summarizes additional important policies including, Diversity, Equal Access, Disability Services, and Attendance & Participation that apply to every course offered by the College of Computer & Information Sciences at Regis University. A copy of the CC&IS Policies & Procedures Syllabus Addendum can be found here: [https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx](https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx).