Syllabus

Course Number: MSCD 610/MCT 614
Course Title: Database Concepts

Course Description:
Database Concepts covers data modeling, normalization, and in-depth structured query language (SQL) concepts. This course emphasizes the learning of SQL to create Oracle database objects and retrieve, update, and delete data from an Oracle database. The course includes an extensive set of hands-on exercises to reinforce the weekly enabling objectives. Students will access an Oracle instance using SQL*Plus via a thin client technology over the Internet.

Prerequisite Courses:
MSCD 600 (Database Architecture) or MCT 613 (Database Architecture)

Course Outcomes:
Upon completion of this course, learners should be able to:
1. Differentiate between data definition language, data manipulation language, and data control language.
2. Construct SQL statements to define the database, manipulate the data, and control database access.
3. Perform analysis of enterprise business requirements to formulate a logical data model.
4. Construct and test a relational/physical database from a logical data model.
5. Employ Oracle tools to formulate SQL statements
6. Execute SQL scripts that define database structures and query/manipulate data.

Course Materials:

Required Text:

Optional 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 Resources for explaining the APA Guidelines:

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

Pre-Assignment:

Online Format: Sign on to D2L (Home Page) and become familiar with the course navigation of the Web Curriculum. Read Chapter One of text.

Classroom-based Format: Read Chapter One of text. Instructor will make assignments.

(Syllabus Author: include the first class assignment here).

Pre-Assignment Due Dates:

Classroom-based Format: Check with your facilitator.

Online Format: See Assignments and Activities table, below.

Course Assignments and Activities:

<table>
<thead>
<tr>
<th>Topics</th>
<th>Readings (Presentations are located in Course Resources folder.)</th>
<th>Activities and/or Assignments</th>
</tr>
</thead>
</table>
| 1 | Overview of Database Concepts and SQL Statements | **Introductions** – required by Wednesday of Week 1  
Discussion Questions  
Q & A Discussions  
Setting Up Your Virtual Lab  
Chapters 1 & 2  
  • Multiple Choice 1-20  
  • Labs/Hands-On 1-10  
Begin Research Paper -Due Week 3 |
| 2    | Table and Constraint Creation and Management | Casteel, J. (2010). Chapters 3, 4 and Presentations* | Discussion Questions  
Q & A Discussions  
Chapters 3 & 4  
- Multiple Choice 1-20  
Labs/Hands-On 1-10 |
|------|--------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------|
| 3    | Restricting and Sorting Data  
Joining Multiple Tables | Casteel, J. (2010). Chapters 8, 9 and Presentations* | Discussion Questions  
Q & A Discussions  
Chapters 8 & 9  
- Multiple Choice 1-20  
- Labs/Hands-On 1-10  
Research Paper - Due |
| 4    | Single-row Functions  
Group Functions | Casteel, J. (2010). Chapters 10, 11 and Presentations* | Discussion Questions  
Q & A Discussions  
Chapters 10 & 11  
- Multiple Choice 1-20  
- Labs/Hands-On 1-10  
Begin Group-Course Project – Due Week 7 |
| 5    | Data Manipulation  
Sub queries | Casteel, J. (2010). Chapters 5, 12 and Presentations* | Discussion Questions  
Q & A Discussions  
Chapters 5 & 12  
- Multiple Choice 1-20  
Labs/Hands-On 1-10 |
| 6    | Additional Database Objects  
Views | Casteel, J. (2010). Chapters 6, 13 and Presentations* | Discussion Questions  
Q & A Discussions  
Chapters 6 & 13  
- Multiple Choice 1-20  
Labs/Hands-On 1-10 |
| 7    | User Creation  
Formatting Readable Output | Casteel, J. (2010). Chapter 7 and Presentation* | Discussion Questions  
Q & A Discussions  
Chapter 7  
- Multiple Choice 1-20  
- Labs/Hands-On 1-10  
Group-Course Project – Due |
| 8    | SQL Tuning Topics | Casteel, J. (2010). Appendix E and Appendix F | Discussion - Group-Course Project  
Q & A Discussion  
Peer Feedback Forms  
Final Exam |
Grading Criteria:
Your final course grade is based on the points you accumulate during the course on the following assignments/activities.

<table>
<thead>
<tr>
<th>Assignment/Activity</th>
<th>Percent of Grade</th>
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<tbody>
<tr>
<td>Discussion Questions</td>
<td>15%</td>
</tr>
<tr>
<td>Multiple Choice Questions</td>
<td>15%</td>
</tr>
<tr>
<td>Labs/Hands-On Assignments</td>
<td>15%</td>
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<tr>
<td>Research Paper</td>
<td>15%</td>
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<tr>
<td>Group-Course Project</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
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</table>

CC&IS Grading Scale

<table>
<thead>
<tr>
<th>Letter Grade</th>
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<th>Grade Point</th>
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<tbody>
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<tr>
<td>A–</td>
<td>90 to less than 93</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>87 to less than 90</td>
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</tr>
<tr>
<td>B</td>
<td>83 to less than 87</td>
<td>3.00</td>
</tr>
<tr>
<td>B–</td>
<td>80 to less than 83</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>77 to less than 80</td>
<td>2.33</td>
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<tr>
<td>C</td>
<td>73 to less than 77</td>
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<tr>
<td>C–</td>
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<tr>
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<tr>
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<tr>
<td>F</td>
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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.
• 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.

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.