# COURSE OUTLINE

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IST 262</td>
<td>Oracle SOL</td>
<td>4</td>
</tr>
</tbody>
</table>

**Hours:**

| lecture/Lab/Other | 3/2 |

**Co- or Pre-requisite**

<table>
<thead>
<tr>
<th>IST 253</th>
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</thead>
</table>

**Implementation Fall/2010**

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**Catalog description (2006-2009 Catalog):** [Note: All revisions to the course description in the catalog require the submission of a memo to the Curriculum Committee.]

Oracle SQL will introduce students to Oracle services, including writing SQL statements, creating databases, manipulating data and tables, working with log files, and performing general database administration. This course assists students with preparing for series of examinations leading to the Oracle Certified Associate (OCA) Certificate.

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**Is course New, Revised, or Modified?** [Modified courses are those which have a new prefix or course number]

New

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**Required texts/other materials:**

Textbook: *Introduction to Oracle SQL Expert and Oracle Database Fundamentals 1 Packages from Oracle Corporation.*

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**Revision date:**

February 2, 2010

**Course coordinator:**

Assistant Professor Queen E. Okike
(609) 570-3464 or Ext. 3464
okikeq@mccc.edu

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**Information resources:** (Describe the primary information resources that support the course, including books, videos, journals, electronic databases, websites, etc. To request new materials for your course, use the library request form at: [www.mccc.edu/student_library_course_form.shtml](http://www.mccc.edu/student_library_course_form.shtml))

The request form was completed on September 30, 2009.

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**Other learning resources:** (Describe any other student learning resources that are specific to this course, including any special tutoring or study group support, learning system software, etc.)

None Required

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MCCC Course Outline; Approved by the Curriculum Committee 12/6/07
**Course Competencies/Goals**

_The student will be able to:_

1. Install and use Oracle services to implement Oracle relational database.
2. Write simple to advanced readable output of Oracle SQL statements.
3. Display data from multiple tables.
4. Describe Oracle Architectural Components and Create Oracle Database.
5. Explain how to use data dictionary; maintain Oracle control and redo log files.
6. Illustrate how to manage undo data and Oracle Tables.
7. Describe how to administer Oracle database

**Course-specific General Education Knowledge Goals and Core Skills.**

<table>
<thead>
<tr>
<th>General Education Knowledge Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1. Communication.</strong> Students will communicate effectively in both speech and writing.</td>
</tr>
<tr>
<td><strong>Goal 2. Mathematics.</strong> Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.</td>
</tr>
<tr>
<td><strong>Goal 4. Technology.</strong> Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MCCC Core Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal A. Written and Oral Communication in English.</strong> Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.</td>
</tr>
<tr>
<td><strong>Goal B. Critical Thinking and Problem-solving.</strong> Students will use critical thinking and problem solving skills in analyzing information.</td>
</tr>
<tr>
<td><strong>Goal C. Ethical Decision-Making.</strong> Students will recognize, analyze and assess ethical issues and situations.</td>
</tr>
<tr>
<td><strong>Goal D. Information Literacy.</strong> Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.</td>
</tr>
<tr>
<td><strong>Goal E. Computer Literacy.</strong> Students will use computers to access, analyze or present information, solve problems, and communicate with others.</td>
</tr>
<tr>
<td><strong>Goal F. Collaboration and Cooperation.</strong> Students will develop the interpersonal skills required for effective performance in group situations.</td>
</tr>
</tbody>
</table>

**Course Content Details.**

**Unit I  Demonstrate basic skills/knowledge of Oracle relational database and Oracle services.**

_**Learning Objectives**_

_The student will be able to:_

- Demonstrate how to do data modeling and normalization (Course Competencies 1, 2; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Write SELECT statements (Course Competencies 1, 3, 4; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Illustrate how to sort and restrict data (Course Competencies 1, 3, 4; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Explain how to limit and sort rows (Course Competencies 1, 3, 4; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Use single row functions and SQL functions (Course Competencies 1, 3, 4; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
Unit II  Display of Data from Multiple Tables

**Learning Objectives**

*The student will be able to:*

- Create complex statements (Course Competencies 1, 3, 4, 5; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Identify aggregate data from using group. (Course Competencies 1, 3, 4, 5; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Create subqueries. (Course Competencies 1, 3, 4; General Education Goals 1, 2, 4, 5; Core Skills A, B, D, E, F.)
- Solve problems with subqueries (Course Competencies 1, 3, 4; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)

Unit III  Write Readable Output with SQL Expert.

**Learning Objectives**

*The student will be able to:*

- Create substitution variables (Course Competencies 1, 3, 4, 5; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Write Data Manipulation Language (Course Competencies 1, 3, 4, 5; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Create and manage tables including constraints (Course Competencies 1, 3, 4, 5; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Create database objects and define Oracle 9i constraints (Course Competencies 1, 3, 4, 5; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)

Unit IV  Explain Oracle Architectural Components and Create Oracle Database.

**Learning Objectives**

*The student will be able to:*

- Explain primary components and database administration tools (Course Competencies 1, 6, 7, 8; General Education Goals 1, 2, 4; Core Skills A, B, C, D, E, F.)
- Manipulate an Oracle instance and create a database. (Course Competencies 1, 3, 4, 5; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Design parameter files, plan and organize a database. (Course Competencies 1, 6, 7, 8; General Education Goals 1, 2, 4; Core Skills A, B, C, D, E, F.)

Unit V  Use Data Dictionary, Manage Undo Data and Maintain Control files.

**Learning Objectives**

*The student will be able to:*

- Use data dictionary and maintain control files. (Course Competencies 1, 5, 7; General Education Goals 1, 2, 4; Core Skills A, B, D, E, F.)
- Use built-in database objects and Control file (Course Competencies 1, 6, 7, 8; General Education Goals 1, 2, 4; Core Skills A, B, C, D, E, F.)
- Explain how to maintain redo log file and manage tablespaces and data files (Course Competencies 1, 6, 7, 8; General Education Goals 1, 2, 4; Core Skills A, B, C, D, E, F.)
- Use online redo log file and manage tablespaces and data files. (Course Competencies 1, 6, 7, 8; General Education Goals 1, 2, 4; Core Skills A, B, C, D, E, F.)
- Discuss storage structures and relation, manage undo data and manage table (Course Competencies 1, 6, 7, 8; General Education Goals 1, 2, 4; Core Skills A, B, C, D, E, F.)
- Use logical database, obtaining undo info. And types of indexes (Course Competencies 1, 6, 7, 8; General Education Goals 1, 2, 4; Core Skills A, B, C, D, E, F.)
Evaluation of Student Learning

Average of weekly homework assignments (10% per units)  50%

Four Units of Tests:

- Unit 1 & 2  10%
- Unit 3       10%
- Unit 4       10%
- Unit 5       10%

Final Examination  10%

Total  100%

Structure of Evaluation:

1. Hands-on laboratory assignments.
2. Multiple choice Unit tests.
3. Hand-on unit tests.

Grade Policy

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Nominal %</th>
<th>QPA quality point value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Superior Achievement</td>
<td>93-100</td>
<td>4</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>90-92</td>
<td>3.7</td>
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<tr>
<td>B+</td>
<td>Above Average Achievement</td>
<td>87-89</td>
<td>3.4</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>80-82</td>
<td>3</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>77-79</td>
<td>2.4</td>
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<tr>
<td>C</td>
<td>Average Achievement</td>
<td>70-76</td>
<td>2</td>
</tr>
<tr>
<td>C+</td>
<td></td>
<td>60-69</td>
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<tr>
<td>F</td>
<td>Academic Failure</td>
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<td>X</td>
<td>Audit — no evaluation</td>
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<tr>
<td>W</td>
<td>Withdrawal (Student-initiated)</td>
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<tr>
<td>WI</td>
<td>Withdrawal (Instructor-initiated)</td>
<td></td>
<td>N/A</td>
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<tr>
<td>WA</td>
<td>Withdrawal (Administration-initiated)</td>
<td></td>
<td>N/A</td>
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<tr>
<td>N</td>
<td>No grade reported by the instructor</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete — no credit earned</td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

Audit:
If you audit the course, you will receive an “X” grade—this cannot be changed to a letter grade at a later date.

Withdrawal Course Requirements:
To receive a W grade for any course, a student must consult with the course instructor or an appropriate division representative and then withdraw officially before two-thirds of the course has been completed by submitting a withdrawal form to the Office of Student Records. Withdrawal after this point results in a
grade other than W (usually F). At any time before two-thirds of the course has been completed, the instructor may also withdraw with a W grade any student who has been absent excessively. A student thus withdrawn will not be entitled to any refund of tuition or fees. The student may appeal this action.

**Academic Integrity Statement:** [Include a statement affirming the college’s Academic Integrity policy and any specific implications for the course. See http://mlink.mccc.edu/omb/OMB210.pdf]