

Pellissippi State Community College
Master Syllabus

SQL APPLICATIONS USING ORACLE
CSIT 2425

Class Hours: 3.0
Credit Hours: 4.0
Laboratory Hours: 3.0
Revised: April 14, 2011

Instructor:
Office:
Phone:
Email:

Catalog Course Description:

A comprehensive study of SQL using the Oracle relational database management system. Hands-on training will include database creation and management, data queries, view definition and use, operators and functions, procedures, security, calculation, indexing, utilities and data transport.

Entry Level Standards:

The student should be able to use a standard keyboard and maintain 28 words per minute error-free typing rate. The student must have math, writing, verbal and English language skills at the college entry level.

Prerequisites: CSIT 1810

Corequisites: None

Textbook(s) and Other Course Materials:

- Required Textbook: *Oracle Database 11g SQL*, by Jason Price, McGraw-Hill, 2008. ISBN:0071498508
- Recommended Textbook: *Oracle Database 11g: The Complete Reference (w/CD)*, by Kevin Loney, McGraw-Hill, 2009. ISBN: 0071598758. The 10g version is also acceptable.
- Recommended Text: *Oracle Database 11g PL/SQL Programming*, by Michael McLaughlin, McGraw-Hill, 2008. ISBN. 0071493697
- Removable storage device such as a USB flash drive.

I. Week/Unit/Topic Basis:

Week	Topic
1	Syllabus review; course accounts and tools – online course software, SQL query tools; review of DBMS concepts - relational and object-oriented databases, ERDs, normalization
2	SQL queries; SELECT clauses – from, where, order by
3	Joining tables
4	Data manipulation commands
5	Formatted output - reports
6	Single-row & group functions
7-8	Subqueries; advanced queries
9	SQL object creation – tables, constraints
10	SQL object creation - sequences, indexes, views
11	Database management commands; security; data sharing
12-13	PL/SQL language - data types, cursors, exceptions, triggers, procedures, functions, packages

Week	Topic
14	Running SQL using Java
15	Final Exam

II. Course Goals*:

The course will

- A. Guide students to understand and properly use the terminology associated with relational database processing. (III)
- B. Expand the student's familiarity with, working knowledge of, and effective use of Oracle SQL, PL/SQL and Oracle developer tools. (II, IV)
- C. Build the skills necessary to create database tables and populate them with data. (IV)
- D. Build the skills necessary to transform data into information using a variety of Oracle technologies. (II, IV, V)
- E. Increase the student's familiarity with issues related to data access, security, file allocation and process control. (III, VI)
- F. Provide opportunities for students to work individually and in teams to design and implement problem solutions. (I, V)

*Roman numerals after course objectives reference goals of the Computer Science and Information Technology program (Career Program Goals and General Education Goals are listed http://www.pstcc.edu/departments/curriculum_and_instruction/syllabi/).

III. Expected Student Learning Outcomes*:

Students will be able to:

1. Use terminology associated with computers, software and database applications in proper context. (A)*
2. Use SQL* Plus commands, processes and SQL Developer to create Oracle database objects and produce reports. (B, C, D)
3. Demonstrate effective use of all major SQL statements. (B, C, D)
4. Apply object security concepts to specify and implement role and user privileges. (E, F)
5. Demonstrate effective use of documentation, tutorials, and on-line resources to learn SQL and PL/SQL syntax. (A, B)
6. Apply SQL and PL/SQL skills to real world business problems. (B, C, D, E, F)

* Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

IV. Evaluation:

- A. Testing Procedures: 50% of grade

A minimum of two tests will be administered. Tests will cover material discussed in class, assigned reading and research, and skills practiced during assigned labs. Tests may not to be missed without a valid, documented excuse. Each instructor will include details of his/her testing procedures in a syllabus addendum.

- B. Laboratory Expectations: 40% of grade

Lab attendance is required. A minimum of 8 labs will be assigned and must be completed and submitted at the designated date and time. Labs will be a combination of individual activities as well as group work. Assignments will provide substantial coverage of the major SQL statements and an intermediate level coverage of PL/SQL.

- C. Field Work: N/A

D. Other Evaluation Methods: 10% of grade

Class participation, research and homework will also comprise a portion of the final grade for the course. Class participation includes elements of a professional work ethic such as regular attendance, arriving on-time, and appropriate interaction with peers during group activities.

E. Grading Scale:

93 – 100	A
88 – 92	B+
83 – 87	B
78 – 82	C+
73 – 77	C
65 – 72	D
Below 65	F

V. **Policies:**

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Maintaining continuous attendance in your classes is very important. If you are considering dropping or withdrawing from a course, please check with the Financial Aid Office before doing so. Dropping or withdrawing from a class can adversely affect your financial aid and/or lottery eligibility.

B. Academic Dishonesty:

Plagiarism, cheating and other forms of academic dishonesty are prohibited. A student guilty of academic misconduct, either directly or indirectly through participation or assistance, is immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions that may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or examination or to assign an F in the course. (*Pellissippi State Online Catalog*)

C. Accommodations for Disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

D. Other Policies:

1. Make-up exams: All exams are required, and make-ups will be allowed only in the rarest of cases. In the event of an emergency, notification of the instructor must be made in advance.
2. It is the student's responsibility to request help from the instructor prior to an assignment's due date.