COURSE: SAVE 202  
EFFECTIVE DATE: August 2014  
NEXT REVIEW DATE: August 2015  

TITLE: SQL PROGRAMMING I  
CREDITS: 3  
CONTACTS: CLASS - LAB - TOTAL 3 0 3

PREREQUISITES: CPT-114 with a grade of “C” or better

DESCRIPTION: This course is an introduction to the writing of basic Structured Query Language (SQL) used in creating tables, inserting data, retrieving data, and manipulating data from a database.


MATERIALS (specifying those to be purchased by student):
Textbook
USB Storage Media

COLLATERAL READING: None

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, etc.):
Academic Dishonesty: Students are reminded of the college policy regarding Academic Dishonesty as outlined in the Student Code Handbook. Should a student break college policy and complete any assignment not entirely his/her own work or by using unauthorized materials, said student will receive a grade of 0/F on that assignment.

Attendance: The student will be dropped after his/her:
6th absence for Day classes; or 3rd absence for Evening classes.

NOTE: Summer students may miss no more than 2 absences at night or 8 during the day.

In the event that the student misses more than the allowable absences, the Instructor, who will complete a Withdrawal form, with a grade of “F”, will drop the student. If the student wishes to withdraw from the class, the student must complete a Withdrawal form, which can be found in the Student Development Office of the College. The student will receive a grade of “W” if the work completed to date is acceptable; a grade of "WF" will be assigned if the work is unacceptable.

Tardy: The student will be marked as “Tardy” when arriving after the class roll has been called. Three tardies will constitute one absence.
Important: It is the responsibility of the Student to make arrangements to make-up any work missed due to an absence. The Student will receive a grade of "F" for any projects not completed due to an absence.

Class Policy: During either a test or lab project, anyone caught exchanging information or copying someone else’s work will receive a grade of "F" for the project or test.

There is to be no food or beverages in the computer lab at any time. No radio or headphones are allowed in the classrooms.

Electronic communication devices (pagers, cell phones, etc.) are not allowed in the classroom. On call emergency personnel should see the instructor for an exemption. (See College Catalog)

Students are required to prominently display a valid NETC photo ID at all times.

Written Assignments: The instructor reserves the right to refuse any paper that is messy or unreadable or appears to be copied. Incorrect grammar and spelling errors will be noted. Papers will be graded on the basis of content, organization, grammar, spelling, and neatness. Papers containing any plagiarized material will result in a grade of “F” on the paper.

DISABILITIES STATEMENT:
Students with disabilities are encouraged to contact the Dean of Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Dean of Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs. (See College Catalog)

RESOURCES (A-V, persons, tools/equipment): PC's and manuals

COURSE TOPICAL OUTLINE (List topics and sub-topics of course) and Calendar or approximate length of time devoted to topic.

TENTATIVE COURSE OUTLINE

WEEK 1 - Introduction to SQL and Data
    What is Data?
    How is Data organized?
    Normalization
    Relationships

WEEK 2 - SQL: The Basics
    The SQL Execution Environment
    The Anatomy of a SELECT Statement

WEEK 3 - The WHERE and ORDER BY Clauses
WEEK 4 - Character, Number, and Miscellaneous Functions
WEEK 5 - Date and Conversion Functions
WEEK 6 - Aggregate Functions, GROUP BY, and HAVING Clauses
WEEK 7 - Equijoins
WEEK 8 - Subqueries
WEEK 9 - Set Operators
WEEK 10 - Complex Joins
WEEK 11 - Insert, Update, and Delete
WEEK 12 - Create, Alter, and Drop Tables
WEEK 13 - Indexes, Sequences, and Views
WEEK 14 - The Data Dictionary, Scripting, and Reporting
WEEK 15 - Security, regular Expressions, Hierarchical Queries, Data Warehousing Features, and SQL Optimization

OBJECTIVES OF COURSE: Upon successful completion of this course, the student should be competent to perform the following:

1. Understand the fundamentals of SQL
2. Build and maintain a database with SQL
3. Define how to store data in a database using SQL
4. Understand advanced and more efficient ways of working with databases
5. Keep databases secure with SQL
6. Define how to use cursors to work with data in a database
7. Define the benefits of error handling and how to implement it
8. Understand Aggregate Functions and Grouping Data
9. Understand and Create Stored Procedures and Triggers

INSTRUCTIONAL METHODS TO COMPLETE OBJECTIVES: Lectures, projects, tests and lab assignments using the computer to complete projects.

NOTE: It is the responsibility of the student to contact the instructor as soon as possible to make arrangements to receive any handouts and assignments which were distributed during the student’s absence. The student is furthermore responsible for acquiring copies of lecture notes missed during an absence. It is highly recommended that all students have a “partner” who can assist in collecting handouts, taking notes, etc. to assist the other when one has to miss class.
**EVALUATIVE METHODS TO APPRAISE OBJECTIVES:** The student will be given lab projects and tests during the semester as the concepts are presented in lecture or in the lab. The final grade will be determined using the following percentage weight system.

- 50% - Lab Projects
- 35% - Tests
- 15% - Final Exam

**GRADING SCALE:** The grade point scale that will be used is as follows:

- A = 100 - 93
- B = 92 - 85
- C = 84 - 78
- D = 77 - 70
- F = 69 and Below

There will be no retests or makeup tests given without a valid excuse for missing the examination. A grade of “F” will be recorded for any tests missed. If a problem should arise, a test may be taken at an alternate time established by the Instructor.

All projects will be given a due date. Ten (10) points will be deducted from the grade if the project is submitted after the due date. This applies to both day and evening students.

No project will be accepted more than one week after the assigned due date. A grade of “F” will be assigned the work if the time schedule is not met.

**COLLEGE-WIDE LEARNING OUTCOMES:**

The Student will be able to identify and use sources of information by utilizing information processing skills compatible with job demands in a computer-literate society.

**LEARNING OUTCOMES FOR THE COURSE:**

Graduates will be able to use logical methods to solve problems.

**COMPUTER USER RESPONSIBILITIES**

**Software**

Software is protected by copyright and licensed for use by NETC only. Software may not be removed, transferred, copied or modified.

**Hardware**

Computers are available for use only during scheduled or assigned hours. Student users have priority. User may not abuse or alter any computer capabilities or settings.
Web Access

NETC provides access to the Internet for educational and research purposes. The College prohibits use of computer facilities for hacking accounts at NETC or any other location, games, chatting, personal e-mailing, downloading programs, changing settings, browsing offensive sites or transmitting illegal, unlawful or immoral information. NETC computers may not be used for personal gain or profit. Access to personal e-mail accounts without specific permission is prohibited due to e-mail delivery of viruses.

The NETC Computer Center monitors computer use with capabilities to track violations of computer user responsibilities. The College will impose disciplinary action for violations.