Course Title: SQL Programming

Course Description:
Using MS SQL Server, this course covers ANSI/SQL where students will learn, through hands-on tasks and lectures, the SQL statements to retrieve from and modify data in relational databases, aggregate and group data using summary functions; create stored procedures and triggers; data integrity and database normalization principles; query optimization and use of indexes; transaction management and locking schemes and learn to create a database and tables.

Course Prerequisite(s):
Microsoft Windows and ability to type 20 WPM.

Course Objectives:
The student will learn how to use SQL to work with relational databases.

Textbook(s):
SQL – The Complete Reference – 3rd Edition
Groff and Weinberg; Osborne, McGraw-Hill
ISBN: 0071592555

Next Class Possibilities: Oracle DB: OCP Day Package; Oracle 10g: Admin Workshop I

Lesson Plan – by week or session
Session 1: Introduction and objectives; Introduction to relational database mgmt system
Session 2: Introduce the "sample database", The select statement
Session 3: MultiTable queries, Summary queries
Session 4: Subqueries, nested subqueries
Session 5: Index, Optimization
Session 6: Insert, Delete, Update
Session 7: Foreign keys, referential integrity, Create database
Session 8: Security, Views
Session 9: Transactions, Locking, Introduction to cursors
Session 10: Stored procedures, Embedded SQL