Navajo Technical University   http://navajotech.edu

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87313-0849

Course Title: Data Base Query
Course #: GIT 220-1
Credit Hours: 3.0
Semester: Spring 2022
Cap: 10

Faculty: Nsalambi V. Nkongolo, PhD   **E-mail**: nnkongolo@navajotech.edu
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Office Hours: MW 9:00-11:00 am; TR: 10:00-12:00 pm,   Cell (573) 292 7783
Preferred Communication (email and/or text; will respond within 24 hours)
Class Location: Tech 325
Class Meeting Times: TR 3:30-4:50 pm

Required Materials:
Laptop: Every student is required to have a laptop

Textbooks: **Teach Yourself SQL in 21 Days, Second Edition**
                    Macmillan Computer Publishing
Tools: Jump drive (to save your work)
Lab Fee (if applicable): None

Mission Statement
Navajo Technical University's mission is to provide University readiness programs, certificates, associate, baccalaureate, and graduate degrees. Students, faculty, and staff will provide value to the Diné community through research, community engagement, service learning, and activities designed to foster cultural and environmental preservation and sustainable economic development. The University is committed to a high quality, student-oriented, hands-on-learning environment based on the Diné cultural principles: *Nitsáhákees, Nahátá, Íína, Siihasin.*

Course Description
Structured Query Language (SQL) is the standard for accessing data stored in relational databases. Students can become fluent in this indispensable language separately, but this class emphasizes the use of SQL to solve GIS problems by thinking in SQL. The strategy is to teach syntax early and then concentrate on applying SQL to solve problems. The class includes a suite of hands-on lab exercises that reinforce the concepts and technology. At the completion of the lab work, students will have worked with all the major concepts and tools of SQL and will leave the course able to use SQL to retrieve data, create queries, generate reports, and program applications.

Course Outcomes	Course Measurements
A strong understanding of the structure and design of relational databases	Complete reading assignments, homework assignments, exams, projects, and quizzes.

A strong understanding of the importance and major issues of database security and the maintenance of data integrity	
A strong understanding of relational database management systems.	
A strong understanding of SQL as a tool in Data Science	
A strong ability to write data retrieval queries and evaluate the result set	
A strong ability to write SQL statements that edit existing data	
A strong ability to write SQL statements that create database objects	
A strong ability to use SQL software (including open source software)	
A strong knowledge of SQL integration with GIS	
An ability to communicate the results of an SQL analysis visually and through writing.	

Course Activities

Week	Date	Chapters	Assignments	Quizzes
1	Jan 19	Introduction to SQL		
2	Jan 20	Introduction to the Query: The SELECT Statement		
	Jan 25			
3	Jan 27	Expressions, Conditions, and Operators		
	Feb 3			
4	Feb 8	Functions: Molding the Data You Retrieve		
	Feb10			
5	Feb15	Clauses in SQL		
	Feb 17			
6	Feb 22	Joining Tables		
	Feb 24			
7	March 3	Subqueries: The Embedded SELECT Statement		
	March 7-11 Mid-Term			
	March 14-18: Spring Break			
8	March 22	Manipulating Data		

11	March 24	Creating and		
	March 29	Maintaining Tables Objectives		
12	March 31	Creating Views and		
	April 5	Indexes		
13	April 7	Controlling		
	April 12	Transactions		
14	April 14	Database Security		
	April 19			
15	April 21	Advanced SQL Topics		
	April 26			
16	April28	Using Views to		
	May 3	Retrieve Useful Information from the Data Dictionary		
	May 5	Review		
	May 11	**Final Exam**		
	May 12	**Final Grades Due**		

Grading Plan

Homework	20%	A = 100 - 90%
Mid-term	20%	
Final Exam	25%	B = 89 - 80%
Project	10%	
Quizzes	20%	C = 79 - 70%
Class Participation	3%	D = 69 - 60%
Portfolio:	2%	F < 60%

Grading Policy

      Each student must do his or her own homework and case studies. Discussion among students on homework and cases is encouraged for clarification of assignments, technical details of using software, and structuring major steps of solutions - especially on the course's Web site. Students must do their own work on the homework and exam. Cheating and Plagiarism are strictly forbidden. Cheating includes but is not limited to: plagiarism, submission of work that is not the student's own, submission or use of falsified data, unauthorized access to exam or assignment, use of unauthorized material during an exam, supplying or communicating unauthorized information for an assignment or exam.

Participation

Students are expected to attend and participate in all class activities- as listed above, as it **is 3% of the grade**. Points will be given to students who actively participate in class activities including field trips, laboratories, and ask questions of guest speakers and other presenters.

Cell phone and headphone use

Please turn cell phones off or place them on silence or vibrate mode **before** coming to class. Also, answer cell phones **outside of class** (not in the classroom). Exercising cell phone use courtesy is appreciated by both the instructor and classmates. Headphones are to be removed before coming to class.

Attendance Policy

Students are expected to regularly attend all classes for which they are registered. A percentage of the student's grade will be based on class attendance and participation. Absence from class, regardless of the reason, does not relieve the student of his/her responsibility to complete all course work by the required deadlines. Furthermore, it is the student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. **Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.**

Study Time Outside of Class for Face-to-Face Courses

For every credit hour spent in a class, a student is expected to spend two hours (2) outside of class studying the course materials.

Study Time for Hybrid or Blended Courses

For a hybrid or blended course of one (1) credit hour, a student is expected to spend three (3) hours per week studying the course materials.

Study Time for Online Courses

For an online course of one (1) credit hour, a student is expected to spend four hours (4) per week studying the course materials.

Academic Integrity

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. **The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited**.

Diné Philosophy of Education

The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth:

Nitsáhákees, Nahát'á, Íína and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

Students with Disabilities

The Navajo Technical University and the School of Science are committed to serving all enrolled students in a non-discriminatory and accommodating manner. Any student who feels he/she may need an accommodation based on the impact of disability or needs special accommodations should inform NTU in accordance with the procedures of the subsection entitled "Students with Disabilities" under Section 7: Student Support Programs, NTU Student Handbook.

Final Exam Date: May 11, 2020