COURSE OUTLINE

IST 261	SQL Server System Administration	4
Course Number	**Course Title**	**Credits**

3	2	N/A	N/A	15
Class or Lecture Hours	**Laboratory**	**Clinical or**	**Practicum, Co-**	**Course**

Not Applicable	Not Applicable
Performance on an Examination/Demonstration (Placement Score (if applicable); minimum CLEP score)	**Alternate Delivery Methods** (Online, Telecourse [give title of videos])

Required Materials:
MCSA/MCSE/MCDBA
SQL Server 2000 Administration
By Rick Sawtell, Joseph Jorden and Lance Mortensen

Catalog Description:
This course covers the concepts and skills required for support of SQL Server and Microsoft Certified Database Administration (MCDBA) certification. It involves backing and restoring up databases, setting up and managing users, managing database security, managing the replica-tion environment, tuning the database system, and trouble-shooting any problem that arises.

Prerequisites: IST 260 **Corequisites:**

Last Revised: Fall 2021

Course Coordinator (name, email, phone extension):
Assistant Professor Queen E. Okike
okikeq@mccc,edu
Extension 3464

Available Resources: (Identify library resources relevant to the course, including books, videos, journals, electronic databases, recommended websites.)

Learning Center Resources: (Are there tutors for the discipline? Study groups?)

Course Goals

The student will be able to:

- Explain SQL Server 2000 and Relational databases
- Install, upgrade and configure SQL Server 2000
- Apply Server Tools, utilities and queries
- Plan, create and manage a database in SQL Server 2000
- Apply security and SQL 2000
- Implement database backup and restorations
- Implement proactive Administrative and IIS support in SQL Server 2000
- Create and implement a replication solution in SQL Server 2000
- Monitor and optimize SQL Server 2000

COURSE CONTENT

Unit I

Learning Objectives: **SQL Server and Relational databases**

The student will be able to:

- Define Client/Server
- Identify Types of Databases
- Explain the Background of SQL Server
- Identify task of a SQL Server Developer
- Identify task of a SQL Server Administrator

Unit II

Learning Objectives: **Install, Upgrade and Configure SQL Server**

The student will be able to:

- Install SQL Server 2000
- Upgrade SQL and databases
- Upgrade Issues
- Configure SQL Server 2000
- Install SQL Server Clients
- Apply English Query support
- Apply OLAP Server support
- Configure ANSI settings

Unit III

Learning Objectives:

Use SQL Server Tools, Utilities, and implement Queries

The student will be able to:

- Manage the Server with Enterprise manager
- Apply the Enterprise Manager Wizards
- Create the SQL Server folders
- Apply the Action menu
- Apply the Tools Menu
- Apply SQL Server Queries

- Utilize Configuration Utilities
- Apply Troubleshooting Tools and commands

Unit IV

Learning Objectives: **Planning, creating, and managing a database in SQL Serve**
The student will be able to:

- Explain database planning considerations
- Apply database file placement
- Explain Data storage structures
- Estimate storage requirements
- Create and managing Databases
- Rename a database, attach and detach databases
- Drop databases, Work for file groups
- Create Objects in your database

Unit V

Learning Objectives: S**ecurity SQL Server and perform integrity checks**
The student will be able to:

- Explain security modes
- Create SQL Server logins
- Utilize GRANT, REVOKE, and DENY
- Apply Ownership chains
- Apply N-Tier Security
- Monitor security
- Create SQL Server Systems accounts

Unit VI

Learning Objectives: **Implement Database backup and Restorations**
The student will be able to:

- Apply SQL to protect data
- Manage Data
- Copy data with BCP(bulk copy program)
- Apply BULK INSERT
- Apply data transformation Services
- Prepare IIS for XML

Unit VII

Learning Objectives:

Implement Proactive Administration and IIS Support in SQL Server

The student will be able to:

- Explain the Msdb databases
- Apply the SQL Server Agent
- Create and manage jobs
- Create and manage Alerts
- Create and manage operators
- Connect SQL and the Internet
- Create Interactive Web Pages

Unit VIII

Learning Objectives:

Create and implement a replication solution

The student will be able to:

- Create Replication factors and Distribution types
- Create Replication internals, modifications and models
- Create Replication over Internet and to Homogenous Database Servers
- Install replication
- Apply and manage replication

Unit IX

Learning Objectives: **Monitor and optimize SQL Server**

The student will be able to:

- Apply Windows system Monitor
- Apply Query Analyzer
- Monitor with SQL profiler
- Explain Tips and Techniques
- Apply Optimizing Techniques

Evaluation of Student Learning

Weekly class attendance and participation		**10%**
Average of weekly homework and laboratory assignments		**50%**
Four Units of Tests:		
Units I, II	**10%**	
Units III, IV	**10%**	
Units V, VI, VII	**10%**	
Units VIII, IX	**10%**	
Total	**100%**	

Grade Policy

Grade	Definition	Nominal %	QPA quality point value
A	Superior Achievement	93-100	4
A-		90-92	3.7
B+		87-89	3.4
B	Above Average Achievement	83-86	3
B-		80-82	2.7
C+		77-79	2.4
C	Average Achievement	70-76	2
D	Minimally Passing	60-69	1
F	Academic Failure	0-59	0
X	Audit — no evaluation		N/A
W	Withdrawal (Student-initiated)		N/A
WI	Withdrawal (Instructor-initiated)		N/A
WA	Withdrawal (Administration-initiated)		N/A
N	No grade reported by the instructor		N/A
I	Incomplete — no credit earned		N/A

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.

Attendance Policy
Mercer County Community College does not have a “cut system.” Students are expected to attend all classes of every course on their schedules. Only illness or serious personal matters may be considered adequate reasons for absence.
It is the prerogative of the instructor to excuse absences for valid reasons, provided the student will be able to fulfill all course requirements.

Student performance in classes is formally verified at each class meeting. If a student's attendance has been infrequent or performance unsatisfactory, he or she may receive notification in the mail. At any time, the instructor may withdraw the student from class for insufficient attendance.

Classroom Conduct Statement

It is the student's responsibility to attend all classes. If a student misses a class meeting for any reason, he/she is responsible for all content that is covered, for announcements made, and for acquiring any materials that may have been distributed in class. It is expected that students be on time for all classes. Students who walk into class after it has begun are expected to choose seats close to where they entered the room so that they do not disrupt the class meeting.

Students are expected to follow ordinary rules of courtesy during the class sessions. Engaging in private, side conversations during class time is distracting to other students and to the instructor. Leaving class early without having informed the instructor prior to class is not appropriate. Unless there is an emergency, leaving class and returning while the class is in session is not acceptable behavior. Disruptive behavior of any type, including sharpening pencils during class while someone is speaking, is not appropriate.

The college welcomes all students into an environment that creates a sense of community of pride and respect; we are here to work cooperatively and to learn together.

Academic Integrity Statement

A student who knowingly represents work of others as his/her own, uses or obtains unauthorized assistance in the execution of any academic work, or gives fraudulent assistance to another student is guilty of cheating. The penalty for violating the honor code is severe. (*See Student Handbook*.) Any student violating the honor code is subject to receive a failing grade for the course and will be reported to the Office of Student Affairs. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss
the situation.

It is permissible to assist classmates in general discussions of computing techniques; general advice and interaction are encouraged. Each person, however, must develop his or her own solutions to the assigned homework and laboratory exercises. Students may not "work together" on graded assignments. Such collaboration constitutes cheating, unless it is a group assignment. A student may not use or copy (by any means) another's work (or portions of it) and represent it as his/her own.