INFORMATION TECHNOLOGY

IT378
Database Management

Course Information:

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Course Description

Students will learn how to administer a major DBMS such as SQL Sever. At the end of the course the student will be able to assume to role of a DBA in performing tasks such as installation of the DBMS, user management, backing up and restoring databases, replication, maintaining high availability, performance monitoring, automating administrative tasks and database security.

Prerequisites

None

Text

MCTS Self-Paced Training Kit [Exam 70-462]: Administering Microsoft SQL Server 2012 Databases; Microsoft Press

ISBN: 13: 978-0-7356-6607-8

Required Materials

Portable USB 2.0 Hard Disk Drive with at least 15 GB of space available for this course.

It is the responsibility of each student to obtain, maintain, protect and secure that student's portable USB hard drive. The USB drive should be used to back up the images used in the laboratory exercises. Loss of or damage to these images, for any reason, will not be an acceptable excuse for failure to complete required laboratory exercises. Students are encouraged to periodically backup image data from the laboratory computer to the USB drive.

Course Outcomes

Upon successful completion of the course, the student will be able to

- ✓ Install, configure and administer Microsoft SQL Server 2012 as evidenced by Instructor review of the functional database management system on a lab computer.
- ✓ Understand the full installation process by successfully completing course quizzes.
- ✓ Select and implement database management system resources according to independent lab exercises.
- ✓ Implement, manage and troubleshoot various databases by completing independent lab exercises.
- ✓ Monitor and optimize system performance and reliability given sets of requirements.
- ✓ Configure and troubleshoot the database environment when introduced to conditions and requirements as evidenced by graded projects.

Assessments of Outcomes

Objective multiple choice tests, essay questions and a final exams/projects will be used to assess the student's ability to list, describe compare, recognize and identify appropriate concepts, tools and procedures described in the course objectives. Scores of 60% or higher for all quizzes and exams are expected to be achieved.

Homework questions/excercises will be used for student self assessment of the ability to list, describe compare, recognize and identify appropriate concepts, tools and procedures described in the course objectives.

Laboratory exercises will be used to reinforce, demonstrate and practice concepts and procedures described in the course objectives. A minimum of 90% of all assigned lab activities are expected to be completed to the satisfaction of the instructor.

Instructional Strategies / Methodology

This course utilizes a variety of instructional strategies. Theoretical content is provided through lectures, reading assignments and instructional videos. Laboratory exercises are used to complement the theory and encourage the development of skills in applying the course content. Review questions are assigned to help the student merge the facts and concepts presented by the various content sources into a comprehensive understanding of the material. Programming projects are presented throughout the course to help the student recognize the student's strengths and weaknesses in each topic area.

Different learning styles are accommodated by offering lectures, readings, videos, handson activities, review and self-assessment.

Evaluation and Grading Criteria

The final grade will be based on the instructor's evaluation of how well the student has mastered the course objectives. The evaluation will be based primarily on a composite of the student's performance on quizzes, homework, labs, exams, and class participation. Weighting of the major criteria is as follows:

Grade Percentages Assigned:

Quizzes	10%
External Assignments	10%
Class Participation	10%
Labs	40%
Mid-Term Exam	15%
Final Exam	15%

All assignments are due by the time specified on each assignment. You lose 25 points once it is late.

Course Policies

Course policies are set by the instructor and will vary from one instructor to another and from one course to another. Students are encouraged to ask the instructor for clarification of any policy that is not clearly stated.

Notebook Computers, Cell Phones, Pagers and other Electronic Devices

Refer to the student handbook for details. Essentially this means that **no** electronic devices of any kind may be used in the classroom at any time without the expressed consent of the instructor.

Inappropriate Computer Use

Software such as packet sniffers, key loggers, port scanners or any software that may compromise computer or network security may not be used in the classroom at any time without the knowledge and expressed consent of the instructor. Any violation of this policy will be reported to the Provost's office for possible disciplinary action.

Playing of games other than those developed in class are prohibited.

In-Class Assignments and Labs

Assignments must be completed in a timely fashion, and completion demonstrated to the instructor. ***Students are to run all laboratory exercises on the laboratory computers and periodically backup the images to the required USB hard disk drive.*** Sufficient time is provided during class periods for timely completion of labs. Students who have excessive absences may jeopardize their ability to complete all of the assigned labs.

Review Questions

The course covers a number of general topic areas, and each topic is accompanied by a set of review questions. Students are required to submit answers to the

questions for each section via the Blackboard Assignment system before the respective due date for the questions. Review questions submitted after the due date will receive a score of 50 or less (out of 100) at the discretion of the instructor.

Mid-Term and Final Exam Projects

The exam projects are cumulative, covering all material presented during the course up to that point. They will be given during Weeks 5 and 10 of the term. The projects may include a series of base game components that will be required for a base grade and a series of options added to your game to obtain a grade higher than the base. Students are required to create a game other than those created within class samples. Details about the final examination will be presented in class and on the Blackboard site.

Attendance and Class Participation

Regular attendance is important to successful completion of the course. Factual material and practical insights will be presented in class in addition to those covered in the required reading assignments. A significant portion of this class is lab work which must be done in class. Absence from class prevents the student from contributing to the class and in benefiting from the contributions of other students. Students missing classes, and the work associated with those classes, may jeopardize their ability to pass the course.

Class participation means more than simply being present in class. Class participation means coming to class prepared by having read and studied the assigned readings and having completed assigned homework. Participation also means contributing to class discussions and answering questions that arise during the discussion of required material.

Arriving at class on time is also important. Late arrivals not only risk missing important information, but can cause distraction to the class. Being punctual is even more important in the working world, and should be practiced conscientiously in school.

COLLEGE POLICIES Academic Honesty Policy

Any project, paper, or examination is expected to be the student's own work, in the student's own words. Academic dishonesty (including but not limited to copying another student's work or allowing one's own work to be copied; using notes or books during an examination without the instructor's advance permission; presenting information or images copied from a book, journal, or online source as one's own) will not be tolerated. See the web site for the full policy)

The design of this course as outlined in the syllabus requires you to do work outside of class to be successful.

Other Policies

Each student is responsible for accessing the http://wcb.neit.edu/shandbook/syllabuspolicies.pdf web site and becoming familiar with all academic policies.

COURSE SCHEDULE

Week	Topic	Chapter
1	Planning and Installing SQL Server 2012	Chapter 1
2	Configuring and Managing SQL Server Instances and Components	Chapter 2 & 3
3	Migrating, Importing and Exporting	Chapter 4
4	SQL Server Logins, Roles and Users	Chapter 5
5	Securing SQL Server 2012	Chapter 6
6	Indexes and Concurrency	Chapter 10
7	SQL Server Agent, Backup and Restore	Chapter 11
8	Troubleshooting SQL Server 2012	Chapter 9
9	Mirroring and Replication	Chapter 7
10	Final Exam	Cumulative

Feedback

Students are encouraged to meet with the instructor outside of class time to discuss the student's progress in the course and any concerns the student may have regarding the content, pacing and evaluation of the material presented. Office hours are posted on the Blackboard site. Appointments may be made to meet with the instructor if the office hours are inconvenient. You do **not** need an appointment to meet with the instructor during posted office hours, but are highly encouraged, just in case of conflicts

Students are encouraged to send questions or comments via email, if a personal meeting is not convenient. When sending email to the instructor, be sure to use your NEIT email account

Most email is answered within 24-36 hours (except for weekends, holidays and school breaks). If you do not receive a response from the instructor in a timely fashion, assume that the message was not received and resend your message.

Academic Support Services

The College offers a variety of support services for the student including the following:

IT Department

If you have concerns or questions about IT Department issues please contact

Marty Truchon

Assistant Department Chair

etruchon@neit.edu

739-5000 ext 3651

Tutoring

Tutoring can be made available to students who are having difficulty with the course material. Any student in need of tutoring or extra assistance should contact the instructor, the student's advisor or one of the department chairs for additional information. There is no cost or charge to the student for tutoring.

Students who feel they may need tutoring should seek assistance as early in the quarter as possible.

Academic Skills Center (ASC)

The ASC is a resource for students. ASC provides a wide range of personalized services from assessment and placement to academic advising and tutoring.

Office of Student Support Services (OSSS)

The main purpose of the OSSS is to ensure that students receive the full benefit of all the services provided at the College. The department's responsibilities include student counseling, student assistance, student attendance and re-entry of former students.

Advisor for Bachelor Candidate Students: Lee Peebles – (401) 739-5000 X3414

Library

The NEIT Library offers resources (e.g., books, periodicals and videos) and search tools as well as several series of booklets on various subjects to help the student.

Final Notes…

- You are responsible for your own choices and actions, whether the result is an A or an F
- The only stupid questions are the ones that are NOT asked. I am here to help…. ask away!
- You pay for this class, and the best way to get your money's worth is to give me feedback.
- Give me your opinions whether they are good or bad…just do is politely. Thanks.
  - I hope we all enjoy this class and learn from each other!
- Honesty is always the best possibility. Try it…it has it's rewards. I will be attempting to lead this class in a manner as close to the "**real world**" development environment as possible. This means that you should consider this class as a "**job**". You will be expected to behave as if you are learning a new technology in the workplace. In the workplace, you (should) share a common goal with your coworkers. That goal is to add as much as you can to the common task of producing a great tool or product and meeting the needs of the

customer (or in this case, the instructor). You have to work together, effectively present information that others need from you, and find the information that you need from others. You should be helping your fellow students (co-workers) to succeed by giving them valuable feedback in code reviews and discussions. You should be asking questions to ensure that you and your co-workers are staying focused on the common goal and avoiding wasteful usage of your valuable time. Those who do the best job of creating a positive and proactive classroom environment will find the greatest success in this class and eventually in the workplace.

Caveat

NEIT reserves the right to change the above schedules and requirements without advance notice.