** School of Management

### **Advanced Database Mgmt – CIS 353- MGMT 544 – Spring 2015**

Instructor: Shawn Berg

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Office Hours:By Appointment

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| **REQUIRED MATERIALS:** | SQL Queries for Mere Mortals 3e  By : John Viescas and Michael Hernandez  A USB Flash Drive |

Course Purpose/Objectives:

Developing and managing efficient and effective database applications requires understanding the fundamentals of database management systems, techniques for the design of databases, and principles of database administration. This course emphasizes database concepts, development, use, and management in three main sections: database concepts, practice, and emerging trends. Relational database systems are the main focus, but other types, including object-oriented databases are studied. Practical design of databases and developing database applications using modern software tools will be emphasized. .

Course Objectives:

Upon the successful completion of this course, a student should:

1. Demonstrate an understanding of database management issues.

2. Be able to apply conceptual data modeling techniques to define database designs for business

information systems.

1. Be able to use query languages to define, maintain and query relational databases. Emphasis will be on the Structured Query Language (SQL) using Microsoft SQL Server 2014.

Grade Determination

For CIS 353 students, your final grade will be based 20% on Quizzes, and 80% on In/Out of class projects and Homework.

For MGMT 544 Graduate Students, your final grade will be based 20% on Quizzes, and 80% on In/Out of class projects, Homework and research paper. As to research paper, please contact Dr. Chen about the details at .**[kchen@calumet.purdue.edu](mailto:kchen@calumet.purdue.edu)**

Academic Honesty

No form of academic dishonesty will be tolerated and will meet with the most severe penalty allowed under University regulations. University policy allows for suspension or expulsion for anyone violating the Honor code of the University.

Absence Policy

School of Management policy has always been that students are expected to attend every session of a class. Because there are times when students cannot avoid missing class the application of the absence policy is that students are allowed to miss no more than 2 classes without being penalized unless the student has a doctor’s note that states they should not attend a class or proof of jury duty, or to attend the funeral of a relative etc. For the absence to be excused is that some neutral third party verifies the legitimacy of the absence. This third party is not a parent or friend and the reason that students are allowed two unexcused absences is that when they are ill but not to the extent that it is necessary for them to see doctor they need not get verification.

It is YOUR responsibility to contact me or another class member when absent to get the assignment given for that day so that you can stay current and not lose points.

Coverage and Preparation:

This is a HANDS ON class, you cannot pass the class by outside reading if you are not present to hear the lectures and work on in class projects as our project databases will be constantly changing and you cannot

Achieve the proper future results without those beinging present to make those changes. There will be frequent quizes to ensure that you are learning the terminology and syntax of the language. They cannot be made up if absent. Each week builds on the knowledge of the previous weeks, this class requires building a comprehensive knowledge of the subject.

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Classroom Behavior: Students disrupting the class will be told ***once*** to discontinue this activity. If the student does not comply then at the second instance he/she should expect to be withdrawn from the class. If the student does not understand the reason for the warning he/she may approach the instructor after class for an explanation. All telephones, personal assistants, textmessaging devices are to be turned off and put away before entering the classroom. No such devices are allowed to be used during examinations. Students needing to leave early should so inform the instructor beforehand.

Expectations: It is the responsibility of the instructor to present the material, to show how it is applied, to explain why concepts are important and to challenge students, in class, to apply their knowledge. It is not the responsibility of the instructor to read the text for the student and to lecture on only that which will be covered on tests. The lecture is not a substitute for the text but rather the opportunity for students to determine whether they have mastered the material and can apply the concepts. If students come to class without having first exposed themselves to the material, the class will be of minimal value. The instructor will provide you with useful knowledge and give you the opportunity to demonstrate that you can use this knowledge. It is the responsibility of the student to be prepared for class. This requires:

a) carefully reading, at least once before the lecture, the material to be covered

b) determining what is not understood from the previous lecture and asking for review

c) determining those topics from the text, which will be covered in the present lecture, that are not understood

d) finding meaningful ways to apply the concepts of the class

In other words, the primary job of students is to determine what they do *not* understand. This is because only the student can know, before the test, what he/she has not mastered. It is the sign of a mature student that both learning and grades are the goal. In order to accomplish both, in this class you must:

1. read, read, and read with purpose

2. actively seek to discover what you don't understand

3. discover the most efficient ways to correct your misunderstandings

4. accept a definition of learning which states that what cannot be applied has not be learned

5. have faith in yourself that you will succeed if you apply these principles

Americans with Disabilities Act:

In compliance with the Americans with Disabilities Act, all students enrolled in this course are entitled to “reasonable accommodations”. If you are a student with a documented disability who will require accommodations in this course, please register with the Coordinator of Services for Students with Disabilities in the Student Support Services Office located in the Student Union and Library Building (SUL), Room 341, phone numbers: 219-989-2455, 219-989-2454(voice/TTY) or 219-989-2920.

***General course outline***: (subject to change) Note: in addition to the text readings identified below, readings from other sources, such as the *Internet*, may be assigned. This syllabus is subject to change. The weekly Class Notes are to be considered the final word on what we are doing each week.

**DATES TOPIC**

Week 1 Install SQL Server Express and Management Studio

Week 2 Basic Vocabulary: Select, From, Where, Order By  
   
Week 3 Data Base Design Concepts and Terminology   
   
Week 4 Working with Basic Table Relationships

Week 5 Project 1   
   
Week 6 Using Aggregate Functions   
  
Week 7 Using Numeric, String, and Date/Time Functions  
  
Week 8 Project 2

Week 9 \*\*\* SPRING BREAK MARCH 16th – 21th

Week 10 Creating Complex Views

Week 11 Modifying Sets of Data

Week 12 Project 3

Week 13 Advanced Table Relationships  
  
Week 14 Designing Stored Procedures

Week 15 Server Security and Administration  
  
Week 16 Project 4