Belmont University – MIS 3620 – Business Data Management and Analysis

#### Syllabus – Spring 2017 – Page 1 OF 6

**Course Information**

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| **Course # :** |  | MIS 3620 |
| **Instructor:** |  | Dr. Gary Garrison |
| **Credit:** |  | 3 Hours |
| **Class Location:** |  | Lab 312, Massey Business Center |
| **Meeting Time:** |  | Section 01 – TR – 11:00-12:15 p.m.  Section 02 – TR – 5:30-6:45 a.m. |

**Instructor Information:**

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| **Office Location:** |  | Barbara Massey Hall 329 |
| **Phone:** |  | 615-460-5440 (O) |
| **Email:** |  | gary.garrison@belmont.edu **– best way to communicate with professor** |
| **Office Hours:** |  | Tue: 7:00-8:00 a.m., 2:00-5:00 p.m.  Thu: 7:00-8:00 a.m., 2:00-5:00 p.m.  **Please email first if possible** |

**Textbook:**

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| **Author:** |  | Steve Conger |
| **Title:** |  | *Hands-On Database, 2/E* |
| **Edition:** |  | 2nd |
| **Publisher:** |  | Pearson |
| **ISBN:** |  | 13: 9780133024418 |

**Additional Material**:

Project files: Instructor will provide instructions for obtaining data files.

Software: MS SQL 2014, Microsoft Access 2013, Microsoft Visio, and Windows 10.

**Course Information:**

**Course Description**: This course will provide students with a greater understanding of data management and analysis, organizational systems, work-flow processes, and user requirements that will translate into skills that are vital for individuals looking to better manage organizational assets and maximize shareholder wealth.

**Course Objectives**:  
Generally, this course is designed to provide students with the skills needed to complete all phases of database development, to analyze data for effective decision making, and to develop effective reports. Specifically,

* Students will recognize and demonstrate the basic concepts of database administration.
* Students will use flow charts and ER diagrams for database design.
* Students will recognize, understand, and write business rules for database design.
* Students will use MS Visio to develop conceptual database models.
* Students will use MS Access for database design, query construction, and form and report generation.
* Students will demonstrate an ability to analyze data and make informed decisions using SQL.

**Relevant Requisites**: MIS 1330 or MIS 3100 or CSC 1120

**Method of Instruction**: Important material from the text and outside sources will be covered in class. You should plan to take careful notes as not all material can be found in the texts or readings. Discussion is encouraged as outside material relevant to topics will be covered.

**Mission Statement of the Massey College of Business:**

The mission of the College of Business Administration is to be an innovative, student-centered learning community that prepares entrepreneurial, ethical and socially responsible future business leaders for the dynamic global economy.

**Student Learning Outcomes of the Massey College of Business**

Students will be able to:

1. Communicate effectively orally and in writing.
2. Demonstrate the ability to effectively collaborate in business contexts.
3. Utilize analytical, quantitative, and technical concepts and methods to identify and propose solutions to business problems.
4. Recognize ethical issues, argue the principles involved, and assess the potential consequences in the process of making socially responsible decisions.
5. Understand global business issues including the diverse legal, economic and cultural environments of business.
6. Recognize and assess the risk and potential benefits of new enterprise.
7. Demonstrate basic understanding of the disciplines included in the business core.

**Course Requirements:**

**Institutional Statement on Class Attendance and Absences**

*Belmont University is committed to the idea that regular class attendance is essential to successful scholastic achievement. Absence is excused only in cases of illness or other legitimate cause. Attendance is checked from the first class meeting. Late registrants will have accrued some absences prior to formal registration in the course. In the case of excused absence from class, students have the right and responsibility to make up all class work missed.*

* **Attendance:** Class attendance is required and recorded on a regular basis. Students will be counted absent if they miss a class or arrive after the scheduled start time. Students missing more than four classes will be involuntarily dropped from the course with a grade of “FN.” Appeal is to the Provost.
* **Missed Classes:** Students are responsible for obtaining all material. If you are absent, contact a classmate or the visit the instructor during office hours. Missed exams cannot be made up without appropriate cause and adequate notice in advance of the exam. Students missing exams due to a pre-arranged and excused absence may be allowed to take a make-up exam. Only official, Provost excuses will be accepted. **Any uncoordinated, unexcused missed exam will result in a score of 0 for that exam.**
* **Participation:**  Class participation requires the student to actively participate in the teaching and learning of the entire class. Asking relevant questions, answering questions posed by others, posing issues of concern are appropriate. Being late, failing to attend class presentations or unconstructive class participation will negatively affect your grade. Attending all classes; submitting all assignments, quizzes, and exams; and being a responsible and constructive student will positively affect your grade.
* **Assignment Policy:** Students complete a number of assignments during the semester. Most assignments will be submitted to the course Blackboard site. Due dates will be announced in class and through Blackboard. **Late assignments will not be accepted and will be given a grade of 0.**
* **In Class Exercises:** To supplement many of the lectures, students work on activities pertinent to topics covered. Students can expect to submit these exercises for a grade. **Students must be present to receive points for in class exercises except for official, Provost excuses.**
* **Quizzes:** Quizzes will be given on a weekly basis to assess students’ understanding of the material covered in previous lectures. **All missed quizzes will result in a score of 0 for that quiz except for official, Provost excuses.**
* **Exams:** Students will take two exams that are closed book/note and will test assigned readings and material discussed in class. **Any uncoordinated, unexcused missed exam will result in a score of 0 for that exam.** Only official, Provost excuses will be accepted.
* **Class Project**: A class project incorporating the skills learned throughout the semester will be used to assess student comprehension and ability to apply material covered.
* **Cheating and Plagiarism:**  Students caught cheating (during exams, quizzes, assignments, through plagiarism, or in any other form) will result in a grade of zero (0) for that exam or assignment. Plagiarism does include the use of projects submitted in other courses unless consent is given and the work is not duplicated across courses. Submitting a file as your own assignment, which was completed by another student, will also be considered plagiarism. If cheating occurs, appropriate college personnel will be notified to determine if the student will receive a grade of "F" in the course.

**Basis of Grade Evaluation:**

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| **Final Project**   * + **Statement of Work**   + **Business Description, Rules and Diagrams**   + **Database** | **30%** |  | **GRADING SCHEME** |
| **Presentation** | **10%** |  | **A** = 94.0 - 100.0+  **A**- = 90.0 - 93.9 **B+** = 87.0 - 89.9  **B**  = 84.0 - 86.9  **B-**  = 80.0 - 83.9 **C+** = 77.0 - 79.9  **C**  = 74.0 - 76.9  **C-**  = 70.0 - 73.9  **D+** = 67.0 - 69.9  **D**  = 64.0 - 66.9  **D-**  = 60.0 - 63.9 **F** = Below 60.0 |
| **Assignments** | **15%** |  |
| **Midterm Exam** | **15%** |  |
| **Final Exam** | **15%** |  |
| **Quizzes** | **10%** |  |
| **Participation/In-class Activities** | **5%** |  |
| **TOTAL** | **100%** |  |

**University Policies:**

* **Honor Code:** The Belmont community values personal integrity and academic honesty as the foundation of university life and the cornerstone of a premiere educational experience. Our community believes trust among its members is essential for both scholarship and effective interactions and operations of the University. As members of the Belmont community, students, faculty, staff, and administrators are all responsible for ensuring that their experiences will be free of behaviors, which compromise this value. In order to uphold academic integrity, the University has adopted an Honor System. Students and faculty will work together to establish the optimal conditions for honorable academic work. Following is the Student Honor Pledge that guides academic behavior:

“*In affirmation of the Belmont University Honor Pledge, I will not give or receive aid during examinations; I will not give or receive false or impermissible aid in course work, in the preparation of reports, or in any other type of work that is to be used by the instructor as the basis of my grade; I will not engage in any form of academic fraud in the fulfillment of my requirements for graduation whether curricular or co-curricular. Furthermore, I will uphold my responsibility to see to it that others abide by the spirit and letter of this Honor Pledge.”*

* **Accommodation of Disabilities:** In compliance with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act, Belmont University will provide reasonable accommodation of all medically documented disabilities. If you have a disability and would like the university to provide reasonable accommodations of the disability during this course, please notify the Office of the Dean of Students located in the Beaman Student Life Center (460-6407) as soon as possible.
* **Course Evaluations:** Belmont University provides all students with the opportunity to evaluate their courses. Toward the end of each semester, students will be made aware that the online course evaluations are open. Students are expected to participate in course evaluations when they are made available.

**Class Schedule** (subject to change as needed):  
The schedule is a guide to when topics will be covered and when projects are due. Depending on how quickly the students grasp the material, the instructor may adjust the schedule including due dates for projects. The instructor will announce changes during class, via email and/or Blackboard.

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| **Date** | **TOPICS** | **MATERIAL/OBJECTIVE** |
| Tue,  Jan 10 | * **Go over Syllabus** * **Discuss Project**   **Assign:** Class Project (**due 4/18 by 10:00pm)** | * Set class expectations |
| Thur,  Jan 12 | **Chapter 1: Who Needs a Database (Conger)**  **Chapter 2: Database Design (Conger)**  **Assign:** Statement of Work (**due 1/19 by start of class)** | * Define relational databases * Identify main characteristics of relational databases * Understand SQL’s role in relational databases * Recognize some indications of where a database could be useful * Define a statement of work for a given database scenario * Review documents to discover relevant entities and attributes for database * Prepare interview questions and follow up * Prepare questionnaires * Observe work flow for process and exceptions |
| Tue,  Jan 17 | **Chapter 3: Requirements and Business Rules (Conger)** | * Identify the issues with a database * Define and list requirements * Define and create business rules * Identify entities and attributes * Identify candidate keys for entities |
| Thur,  Jan 19 | **Chapter 3: Requirements and Business Rules (Conger)** | * Identify the issues with a database * Define and list requirements * Define and create business rules * Identify entities and attributes * Identify candidate keys for entities |
| Tue,  Jan 24 | **Chapter 4: Database Design**  **(Conger and outside material)**  **Assign:** Business Rules & ERD  (**due 1/31 by start of class)** | * Learn the main characteristics of entity relationship components * Identify weak and strong entities * Identify weak and strong relationships |
| Thur,  Jan 26 | **Chapter 4: Database Design (cont.)**  **(Conger and outside material)** | * Learn how to deal with specialization hierarchies * Learn how to identify and handle special design cases * Learn when to use surrogate primary keys |
| Tue,  Jan 31 | **Chapter 5: Normalization and Design Review (Conger)** | * Evaluate an entity against the first three normal forms * Remove all repeating lists or arrays (1NF) * Remove all functional dependencies (2NF) * Remove all transitive dependencies (3NF) * Understand the importance of design review |
| Thur,  Feb 2 | **Chapter 6: Physical Design (Conger)** | **Creating the Database Tables using MS SQL Server**   * Physical design of the database based on the logical ERDs * Choose appropriate data types for columns * Enter sample data into tables |
| Tue,  Feb 7 | **Chapter 7: SQL (Conger)**  **Assign:** SQL HW (SQL Server)  (**due 2/14 by start of class)** | * Learn how to use SQL to query a database to extract information * Learn how to use advanced SQL operators * Learn how to u se SQL functions to manipulate dates, strings, and other data |
| Thur,  Feb 9 | **Chapter 7: SQL (Conger)** | * Learn the basic commands and functions of SQL * Learn how to use SQL for data administration * Learn how to use SQL to query a database to extract information * Learn the basic commands and functions of SQL |
| Tue,  Feb 14 | **Building the Database (Demonstration)** | **Creating the Database Tables**   * Using the Database Design to Create the Database * Creating a Table by Entering Data * Working in Table Design View * Creating a Table using the Table Wizard * Creating a Table in Design View * Evaluating and Testing the Table Design |
| Thur,  Feb 16 | **Building the Database (Demonstration)** | **Creating the Database Tables**   * Using the Database Design to Create the Database * Creating a Table by Entering Data * Working in Table Design View * Creating a Table using the Table Wizard * Creating a Table in Design View * Evaluating and Testing the Table Design |
| Tue,  Feb 21 | **Project Work Day** |  |
| Thur,  Feb 23 | **Review for Exam** |  |
| Tue,  Feb 28 | **EXAM 1** | **Includes all material covered during the semester** |
| Thur,  Mar 2 | Analyzing Data for Effective Decision Making (Demonstration) **Assign:** Access Query HW (**due 4/16 by start of class)** | **Organizing and Retrieving Information from a Database**   * Filtering and Sorting Data * Using Queries to Answer Business Questions * Enhancing Query Criteria to Improve Data Analysis * Verifying and Printing Query Results |
| Tue,  Mar 7 | SPRING BREAK – No Class | **SPRING BREAK – No Class** |
| Thur,  Mar 9 | SPRING BREAK – No Class | **SPRING BREAK – No Class** |
| Tue,  Mar 14 | Analyzing Data for Effective Decision Making (Demonstration) | **Exploring Advanced Queries and Queries written in Structured Query Language**   * Analyzing Query Calculations * Modifying Data Using Queries * Making Decisions in Queries * Customizing Queries using Structured Query Language |
| Thur,  Mar 16 | Analyzing Data for Effective Decision Making (Demonstration) | **Exploring Advanced Queries and Queries written in Structured Query Language**   * Analyzing Query Calculations * Modifying Data Using Queries * Making Decisions in Queries * Customizing Queries using Structured Query Language |
| Tue,  Mar 21 | **Collecting Data with Well-Designed Forms (Demonstration)** | **Creating Forms that Use Fields from More than one Table**   * Adding a Subform to an Exiting Form * Modifying the Form Layout |
| Thur,  Mar 23 | **Collecting Data with Well-Designed Forms (Demonstration)** | **Creating Forms that Use Fields from More than one Table**   * Adding Command Buttons to a Form * Adding an Unbound Graphic to a Form * Exploring other Form Properties |
| Tue,  Mar 28 | **Collecting Data with Well-Designed Forms (Demonstration)** | **Creating Forms for Completing Daily Business Tasks**   * Improving the Usability of Forms * Streamlining the main processes in a complex form * Creating Form calculations |
| Thur,  Mar 30 | * **Developing Effective Reports (Demonstration)** | **Creating Simple Reports and Labels**   * Understanding Reports * Creating and Modifying Basic Reports |
| Tue,  Apr 4 | * **Developing Effective Reports (Demonstration)** | **Creating Simple Reports and Labels**   * Creating Labels using the Label Wizard * Creating Report Calculations |
| Thur,  Apr 6 | * **Developing a Main Menu (Demonstration)** * **Automating Database Processes (Demonstration)** | * Understanding the Main Menu * Understanding Basic Macros * Setting Startup Options |
| Tue,  Apr 11 | **Project Work Day** |  |
| Thur,  Apr 13 | **Class Presentations** | **Final Projects/Presentations due 4/18 by 10:00pm** |
| Tue,  Apr 18 | **Class Presentations** | **Final Projects/Presentations due 4/18 by 10:00pm** |
| Thur,  Apr 20 | **Class Presentations** | **Final Projects/Presentations due 4/18 by 10:00pm** |
| Tue,  Apr 25 | **Last Day of Class - Review For Final Exam** |  |
| Thur  Apr 27 | **Section .02 Final Exam 5:00 p.m. – 7:00 p.m.** | **(Covers Access Table and Query Construction)** |
| Mon,  May 1 | **Section .01 Final Exam 11:00 a.m. – 1:00 p.m.** | **(Covers Access Table and Query Construction)** |