1. General Course Information
   Course: Database Management Systems
   Course Number (section): MIS 310 (001) - 3 Credits
   Location: Planetary Hall 129, Fairfax Campus
   Time: Mondays 7:20-10:00PM – August 25, 2014 through December 6th, 2014
   Course Homepage: Blackboard
   Prerequisites: C or higher in MIS 301, degree status.

2. Instructor Information
   Professor: Greg Hampe, Assistant Professor, ISOM
   Office: Enterprise Hall 154,
   Tel. 703-993-1874
   Email: ghampe@gmu.edu
   Office Hours: Mondays and Wednesdays 3-4pm (by appointment)

3. Course Descriptions and Objectives
   • In this course, we will study the fundamental concepts and techniques of modeling and designing relational databases. We will discuss why databases are used, and describe the main components of database management systems. Further, we will cover the fundamental Structured Query Language (SQL) statements used to define and process databases. Using a wealth of sample databases and examples, students will gain skills to systematically solve basic and advanced problems in query formulation, data modeling, and normalization. The course will use Microsoft SQL server 2012 as the relational database management system and Microsoft Visio as the data modeling tool to implement the concepts covered in class. We will cover few examples of industry best practices also.

   • Students will
     o Describe the components of a database management system
     o Introduce the relational model and define key relational database terms.
     o Apply the Structured Query Language (SQL).
     o Model relational databases using Microsoft Visio.
     o Design practical databases using Microsoft Access and Microsoft SQL Server

4. Required Course Materials
   • Software: Microsoft SQL Server Express 2012, Microsoft Visio Professional 2010. These applications are available for free download and installation on your personal computers through the Microsoft Developer Network Academic Alliance (MSDNAA). Note that there are no Mac versions of the software. It is your responsibility to make sure your assignments meet the required PC standards. Please contact sommsdn@gmu.edu for support.

   Please Note:
     o MS SQL Server Express with Tools - 32 or 64 bit, depending on your system

- MS Visio Professional 2010 (not 2013!)
  Download from: MSDN Academic Alliance - [http://goo.gl/m3qItt](http://goo.gl/m3qItt)

- **Blackboard**: This course will use Blackboard to deliver course materials such as lecture notes, announcements, online discussions, and assignments, etc. Additional materials beyond the textbook may also be posted on Blackboard. It is important for you to visit Blackboard (http://mymason.gmu.edu) regularly for course materials and announcements.

### 5. Tentative Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Topic</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/25/14</td>
<td>Mon</td>
<td>Ch. 1: Database Fundamentals (Getting Started)</td>
<td></td>
</tr>
<tr>
<td>09/01/14</td>
<td>Mon</td>
<td>NO CLASS</td>
<td></td>
</tr>
<tr>
<td>09/08/14</td>
<td>Mon</td>
<td>Ch. 1: Database Fundamentals (Getting Started)</td>
<td></td>
</tr>
<tr>
<td>09/15/14</td>
<td>Mon</td>
<td>Ch. 2: The Relational Model</td>
<td>Quiz 1</td>
</tr>
<tr>
<td>09/22/14</td>
<td>Mon</td>
<td>Ch. 2: The Relational Model</td>
<td></td>
</tr>
<tr>
<td>09/29/14</td>
<td>Mon</td>
<td>Ch. 3: Structured Query Language (SQL)</td>
<td>HW 1 Due</td>
</tr>
<tr>
<td>10/06/14</td>
<td>Mon</td>
<td>Ch. 3: Structured Query Language (SQL)</td>
<td>Quiz 2</td>
</tr>
<tr>
<td>10/14/14</td>
<td>Tue</td>
<td>In Class Exercise</td>
<td>HW 2 Due</td>
</tr>
<tr>
<td>10/20/14</td>
<td>Mon</td>
<td>SID TERM</td>
<td></td>
</tr>
<tr>
<td>10/27/14</td>
<td>Mon</td>
<td>Ch. 4: Data Modeling</td>
<td></td>
</tr>
<tr>
<td>11/03/14</td>
<td>Mon</td>
<td>Ch. 4: Data Modeling</td>
<td>Quiz 3</td>
</tr>
<tr>
<td>11/10/14</td>
<td>Mon</td>
<td>Ch. 5: Database Design</td>
<td>HW 3 Due</td>
</tr>
<tr>
<td>11/17/14</td>
<td>Mon</td>
<td>Ch. 5: Database Design</td>
<td>Quiz 4</td>
</tr>
<tr>
<td>11/24/14</td>
<td>Mon</td>
<td>In Class Exercise</td>
<td>HW 4 Due</td>
</tr>
<tr>
<td>12/01/14</td>
<td>Mon</td>
<td>Review for Final</td>
<td>Quiz 5</td>
</tr>
</tbody>
</table>

### 6. Grading and Assessment

Students must be officially registered in this course to receive a grade. It is the sole responsibility of the student to verify their own registration status. Specifically, you will not receive a grade if your name does not appear on the official class list. (Don’t wait until the end of the semester to be surprised.) Registration problems should be directed to either the SOM Office of Student Services or the Registrar’s Office. Grading for the course will be based on total points earned by the end of the course. Final course letter grade assignments, will be as follows:

- **Grade Percentage**
  - A greater than or equal to 93%
Database Management Systems

A- greater than or equal to 90% but less than 93%
B+ greater than or equal to 87% but less than 90%
B greater than or equal to 83% but less than 87%
B- greater than or equal to 80% but less than 83%
C+ greater than or equal to 75% but less than 80%
C greater than or equal to 70% but less than 75%
D greater than or equal to 60% but less than 70%
F less than 60%

- **Graded Assignments**
  - Mid Term Exam = 25%
  - Final Exam = 35%
  - 4 out of 5 Quizzes = 20%
  - 4 assignments = 20%
  - Total = 100%

- **Required – Submit a brief write up of you technical experience in IT as well as a recent picture**

- **Late Assignments**
  Late assignment submissions are subject to penalties:
  - 1 day late (within 24 hours) ...................... 30%
  - penalty after the 2nd day (24 hours) ..........not accepted

**Exams** - Two exams to include a Final Exam, as well as five quizzes will be given, as announced. The exams will be comprehensive of the topics they cover. Exams are based upon the class lectures, textbook material, and discussion of the material covered during the classes. **All examinations are to be by individual effort as they will be graded.** NO collaboration of any kind is permitted. See the honor code paragraph below. Any collaboration will be treated as an Honor Code violation.

**Make up Exams** - Notice will be given before each exam (including any changes); if you cannot take the exam at the designated time, you must make arrangements with the instructor before the exam is given to schedule a make-up exam. For cases other than approved ODS accommodations, exams may be made up only under extreme emergencies AND at the sole discretion of the instructor. In most cases a penalty for lateness will be assigned. Missed exams will be assigned a score of zero.

**Quizzes** – Five quizzes will be given. Only Four quizzes will be counted in the final grade. No make-up quizzes will be given.

**Homework** - To be successful in this course, homework will be an integral part of learning the course material. It is in the best interest of the student to complete each and every homework assignment. Homework is for the student’s benefit; it is a diagnostic tool by which the student may assess their understanding and performance. Failure to do so will adversely affect performance, and will negatively impact course grades. Avoid falling behind. Homework assignments will be posted on the website. Homework problems, both their assignment and solution, are the sole responsibility of the individual student.
• Homework will only be accepted through Blackboard submission. Scanned, hand written work will not be accepted.
• All Excel HW must be done in Excel while Access HW must be done in Access. No hand drawn graphs will be accepted.

7. Student Responsibilities
Students are expected to attend class each week and to participate in class discussions and exercises. Students are expected to complete assignments on time. Students are expected to respect their instructor and fellow classmates, both in and out of the classroom environment. Students are expected to turn off or silence their mobile phones during class time.

Attendance Policy:
Attendance in this class is highly recommended in order to be successful in learning the course content. The student is solely responsible for all assignments and material presented in class even if missed due to absence.

8. Email Communication
By policy of the University and to help protect confidentiality, students are must use their official George Mason email accounts for communication with the instructor and other students in the class. All emails from the instructor will be sent to your official George Mason email email addresses.

9. Learning Goals
Learning goals for the Undergraduate Programs
1. Our students will be competent in their discipline.
2. Our students will be aware of the uses of technology in business.
3. Our students will be effective communicators.
4. Our students will have an interdisciplinary perspective.
5. Our students will be knowledgeable about global business and trade.
6. Our students will recognize the importance of ethical decisions.
7. Our students will be knowledgeable about the legal environment of business.
8. Our students will be knowledgeable about team dynamics and the characteristics of effective teams.
9. Our students will understand the value of diversity and the importance of managing diversity in the context of business.
10. Our students will be critical thinkers.

Learning Goals of the Information Systems and Operations Management Program
1. Apply knowledge of information technology and business functions to understand its application in assessing, designing and improving business processes.
2. Develop data organization, storage and processing solutions to support organizational needs for information management. They will also have the option of developing skills in the area of supporting decision making through business intelligence solutions.
3. Use knowledge of computer networks as part of the IT solutions for improving business processes. They will also have option of developing more advanced skills in the areas of network and security.
4. Effectively manage information technology projects.
5. Understand the overall systems development life cycle and be able to recommend IT system solutions accordingly. They will also have option of learning appropriate development tools to develop prototype of IT solutions for business management.

10. **School of Business Standards of Behavior:**
The mission of the School of Business at George Mason University is to create and deliver high-quality educational programs and research. Students, faculty, staff, and alumni who participate in these educational programs contribute to the well-being of society. High-quality educational programs require an environment of trust and mutual respect, free expression and inquiry, and a commitment to truth, excellence, and lifelong learning. Students, program participants, faculty, staff, and alumni accept these principles when they join the School of Business community. In doing so, they agree to abide by the following standards of behavior:
- Respect for the rights, differences, and dignity of others
- Honesty and integrity in dealing with all members of the community
- Accountability for personal behavior

Integrity is an essential ingredient of a successful learning community. Ethical standards of behavior help promote a safe and productive community environment, and ensure every member the opportunity to pursue excellence. School of Business can and should be a living model of these behavioral standards. To this end, community members have a personal responsibility to integrate these standards into every aspect of their experience at the School of Business. Through our personal commitment to these Community Standards of Behavior, we can create an environment in which all can achieve their full potential.

11. **Honor Code Statement:**
*Honor System and Code:* The Honor System and Code adopted by George Mason University will be enforced for this class:

http://oai.gmu.edu/the-mason-honor-code/

In your work on all written assignments, keep in mind that you may not present as your own the words, the work, or the opinions of someone else without proper acknowledgement. You also may not borrow the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgement. Please note: Faculty are obligated to submit any Honor Code violations or suspected violations to the Honor Committee without exception.

The appropriate version of the School of Business “Recommendations for Honor Code Violations” should be attached.

12. **Business Library Liaison Information:**
*Jo Ann J. Henson, MLIS* Business and Economics Liaison Librarian
Fenwick Library Fairfax Campus: http://infoguides.gmu.edu/business

13. **Disability:** If you have a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 703-993-2474. All academic accommodations must be
arranged through the ODS. Please take care of this during the first two weeks of the semester. More information about ODS is available at http://www.gmu.edu/student/drc.

14. Religion: Students who will miss class for religious reasons should inform me of their anticipated absences as soon as possible.

15. Counseling center: George Mason University has a counseling center that can provide assistance if you find yourself overwhelmed by life, want training in academic or life skills, or the like. More information is available at http://www.gmu.edu/departments/csdc/.

16. Writing Guidelines (if relevant for the course): Unless otherwise specified, all writing assignments should be formatted as follows: double-spaced, Times New Roman, 12-point font, and 1-inch margins. To cite and reference professional or academic sources, please use APA style. Specific instructions for in-text citations and referencing are found in the Publication Manual of the American Psychological Association, 6th Edition or at http://owl.english.purdue.edu/owl/resource/560/01/.

To help manage the citations and seamlessly create reference lists, Mason supports a free software called Zotero. Please go to https://www.zotero.org/

This program offers:
- Centralized bibliography management
- Ability to sync across computers
- Ability for teams to combine contributions to the references
- Word plug-in that allows citation management within MS word

George Mason University has a writing center that can help you improve your English writing skills. More information is available at http://writingcenter.gmu.edu/.

17. Inclement weather & campus emergencies: Information regarding weather related changes in the University’s schedule (e.g., closing or late opening) will be provided on the GMU website and via MasonAlert. Students sign up for the Mason Alert system to provide emergency information of various sorts at https://alert.gmu.edu.