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OPIM 257: Developing and Managing Business Databases
Fall 2014

INSTRUCTOR

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Office hours: Tues. 10:00 a.m to 12:00 p.m. and by appointment

COURSE INFORMATION

Section	Time	Location
01	TH 2:00 PM –-3:15 PM	HAR 130

.

To access course web page: http://campus.georgetown.edu

KEY DATES

First class meeting:	Aug 28
Last class meeting:	Dec 4
Test 1	Sept 18
Test 2	Oct 14
Test 3	Nov. 11
Final Project Due	Dec 8 (5 p.m.)

COURSE OBJECTIVE & FORMAT

This course is designed to familiarize you with:

- the concepts of database management;
- the strategic impact of database systems;
- Microsoft Access;
- Standard Query Language (SQL);
- Microsoft Visio (for database modeling as well as other purposes)
- data administration;
- data warehouse concepts;
- Enterprise Resource Planning (ERP) packages (hands on work with SAP);
- Business Intelligence;
- multimedia data management;
- Big Data

This course will be interactive in nature. Students are expected to engage in critical discussions, applying their knowledge from the readings. You should be prepared to participate actively in class discussions. Please be sure that your comments and questions are conducive to a respectful and comfortable environment for others to contribute their ideas.

Besides lectures and class discussions, the course will also include these activities:

- Computer assignments: The ACCESS assignments will give you the chance to apply theoretical concepts and software knowledge to solve business problems. You will also learn SQL, Microsoft Visio, RapidMiner data mining software, Tableau and, if time, some PHP this semester.
- Guest speakers: Business executives will give presentations about current related practices in their companies.

COURSE MATERIALS

Textbooks/Readings

1)**Database Concepts**, Sixth Edition by David M. Kroenke and David J. Auer, ISBN 13: 978-0-13-274292-4, Pearson, 2013. (Required. Be sure to get the **6e version**.) (K&A)

2)**New Perspectives Microsoft Access 2010 (Introductory)** by Joseph J. Adamski and Kathleen T. Finnegan, 2011, ISBN-13: 978-0-538-79848-8, Course Technology. (BE SURE TO CHECK ISBN BEFORE BUYING; these authors have written quite a few Access books.) (Required) (A&F) You may also purchase this same book for Access 2013.

Lecture notes

Copies of Powerpoint slides will be posted on the class web site by the night before the next day's class. You will find it helpful to print these out to study or take notes on during class. You can print them as handouts with 3 or 6 slides to a page. If you print them with "Pure Black and White" checked (one of the options when you print the slides), you will see the text more clearly.

Additional readings

If you find that you would like further references for a particular topic of interest, I will be happy to provide them.

MGMT 257 web page

To access the course page (done in Blackboard), go to:

http://campus.georgetown.edu

This web site includes a copy of this syllabus (and any subsequent updates or changes), copies of the Powerpoint slides, and information about the assignments. It is your responsibility to check this web site frequently for announcements. It is also your responsibility to find out your net id and password so you can access the website. You must access the web site by the end of the third week of classes, or your class participation grade will be reduced by five percentage points.

COURSE REQUIREMENTS & POLICIES

Your grade will be determined according to the following percentages:

Course activity	Weight
Class participation, including in-class labs	20%
Test 1	20%
Test 2	20%
Test 3	20%
Access Casework (includes final project)	20%

The policies outlined below are set up to help you finish assignments, give you guidelines for appropriate conduct, ensure fairness for all students in the class, and help you learn as much as possible. If you have any questions, or would like to give me some feedback on any of the policies (or anything else about the course) please feel free to email or come see me.

Class attendance & participation
You are expected to attend all classes and to participate regularly in class discussions. Absences due to documented medical or family emergencies, and major religious holidays will be excused. In addition to excused absences, you are able to miss up to two class sessions without any negative impact on your class participation grade. For each additional unexcused absence, you will receive 0 as your grade for that day, and your overall participation grade will be reduced. Please note that you are responsible for anything covered in class the days you miss. Furthermore, your assignments are due on the specified dates and times regardless of whether you attend class.

To earn a high mark for participation, you need to be prepared and to participate regularly in class discussions. It is essential that you read the assignments before coming to class. Participation points will be allocated to you based on the quality of your contributions. Class participation points will be assigned based on the judgment of the instructor. You can expect to receive the following grades for class participation, if you do not exceed the number of unexcused absences, and your contributions are concise and illustrate critical thinking (that is, they go beyond the stated facts.) Additionally, you can expect to have your grade lowered if you engage in negative behavior (coming to class late, leaving during class, disruptive, surfing the web and not paying attention).

- 90-100% - Almost always very well-prepared and has something relevant to say.
- 80-89% - Well-prepared and contributes significantly during the majority of class sessions.
- 70-79% - Adequately prepared and contributes on an occasional basis.
- 60-69% - Adequately prepared but seldom volunteers to speak.
- Below 60% - Inadequately prepared and never voluntarily contributes.

Class Labs
We will be doing a number of in-class labs (on Data Visualization and Tableau, Data Mining, Microsoft Visio, and Big Data.) During these labs, your attention and work level will be noted. This can help or hurt your class participation grade. If you are absent for a lab, it is your responsibility to find out what happened and submit work showing that you have mastered the skills learned by the class.

"Big Data in the news" Extra Credit presentation
In order to receive up to .3 point added to your final average, you may prepare a 3-minute presentation about either a technology using Big Data or a strategic Big Data application. These presentations will be given Dec. 2 and 4. YOU MUST SIGN UP WITH YOUR FINAL TOPIC AT LEAST A WEEK AHEAD OF TIME TO RECEIVE FULL CREDIT. A topic may be changed without penalty up to one week before the time slot, with the permission of the instructor. However, any change needs to be done only after you've checked to see that no one else has taken the topic you want to change to. If you have not given me a topic before the date you signed up for, you will lose half of the possible .3 point. You must check and make sure that the topic has not been taken by someone else. Presentations must be kept to no more than 3 minutes in length. If you want to receive credit, you must hand a hard copy of the presentation to the professor before you present in class.

1) *Strategic Big Data presentation:* Select an organization that strategically uses Big Data to effectively achieve one or more of its business goals. During the presentation, you should describe the organization's strategic systems, and discuss both the impacts of those systems and any limitations they may have.
2) *Big Data Technology Presentation:* Select a new, cutting edge, Big Data technology that can be expected to have a measurable impact on business. During your presentation, you should describe (or perhaps demonstrate) the technology and its use. You should also analyze its present and potential impact (both positive and negative).

Each person must choose a different organization or technology. As company/technology selections will be given out on a first-come, first-serve basis, you should make your selections as soon as possible. Good sources of topics include newspapers, industry magazines and journals, TV, websites from IT vendors, and business contacts. If you are having trouble finding a topic, come see me.

Quick Quizzes
If it becomes necessary, students will need to complete quizzes online for each chapter before coming to class. If the instructor feels as if students are adequately prepared for each class, then quizzes will not be given. If quizzes are needed, these quizzes will be online and will help students prepare for class discussions. The purpose of these quizzes is to encourage students to do the reading ahead of time so that we can use the class time for more difficult questions and exercises. No make-ups will be given on quizzes.

Access Casework
You will need to have Access 2010 or Access 2013 for this semester. If you have a Mac, you will need to be sure that you can run Windows on it, in order to run Access. Please see the Tech Center right away if you have questions about this. One place to obtain Access is: http://www.microsoft.com/student/discounts/theultimatesteal-us/default.aspx?cid=howtobuy . The cost is approximately $80. The Access assignments will let you apply concepts taught in this course and learn computer skills. These skills should increase your future personal and professional productivity. As a class, we will follow one case(Case 2) throughout the Access book. This case runs throughout the book's chapters. You will be responsible for doing the casework for each chapter (1-8) for that case. Periodically, you will submit your casework (only the main database, NO extra printouts or files, regardless of what the instructions in the book say) for review by the professor.

You can download the data from for the casework by downloading the zip file I have posted on Blackboard or by following the instructions on the inside back flap of the Access book. Remember to save the data to a backup drive or, preferably, Box or Dropbox before doing the assignment.. Be certain to back up your project; each chapter builds on earlier chapters.

All computer assignments are to be done individually. For the ACCESS casework, all parts must be created on your own. You should not, under any circumstances, copy another student's assignment (i.e., logical design, files or parts thereof) and turn it in as your own. Direct copying or emailing of files is NOT allowed. (Translation of working together but not copying: You may ask another student how to use a formula or function in ACCESS, you may NOT check your substitution into a formula against another student's, you may NOT have someone else do the programming for you, you may NOT copy any answer or part of an answer, any graph or part of a graph, you may NOT use or copy another student's ACCESS printout. You may NOT email a copy or otherwise share a copy of code or project with another student.) If you follow these guidelines, there should be only circumstantial similarities between projects. If you don't follow these guidelines, there are literally thousands of ways in which cheating can be "caught." If there are substantial similarities between assignments that raise a suspicion of collaboration, the individuals responsible will have their work investigated by the Honor Council. You are on your honor to abide by the above rules. In case of illness or emergency, it is your responsibility to contact the professor immediately and make other arrangements.

You need to turn in copies of your databases to Blackboard (under "Assignments) by the due date and time. (Note: This will include ONLY the main relevant database(s). **No other parts need to be printed out or turned in, regardless of what is indicated in the text.** Check with me if you have any questions.) Please upload the database for each assignment to Blackboard, and label it with the appropriate chapter numbers and net id (i.e. "Access 1-3-netid"). Students are required to have backup copies available in case of any problems.

Assignments are due at the beginning of class on the dates listed. Late projects will be penalized 10% per 24-hour period (or part thereof). You are expected to manage your time to allow for any possible glitches. Technology-related reasons (corruption of files without backups, computer/printer/network failures, etc.) and time management issues (work-related conflicts, work in other courses, locked doors, etc.) are not acceptable justifications for late submissions. Extensions will be granted for documented medical or family emergencies only.

Big Data
When we do the three-period module on Big Data, we will be referring to handouts that will be posted on Blackboard.

Tests
There will be three major tests during the semester. The first test will cover Chapters 1-3 (K&A), plus Online Appendix E (See p. 454 for instructions). The second test will include material from Chapters 4-6, and the third and final test will cover Chapters 7 and 8 plus Online Appendix F, as well as the material covered on Big Data (to be determined). The tests will cover all material from class and the readings. Access may or may not be included on the 3rd exam. All exams will be closed book and closed notes. They will be made up of multiple choice, matching, and/or short essay or problem questions.

Grading
Grading will be determined according to the following guidelines for a non-core course in the business school. These guidelines are set by the McDonough School of Business:

"For non-core MSB undergraduate courses, the average GPA for all students taught by a given professor in a given course in a given semester will not be above 3.5 (A=4, A-=3.67, B+=3.33, B=3.0, B-=2.67, C+=2.33, C=2.0, C-=1.67, D=1.0, F=0) and the percentage of grades in the A-range will not be above 50%. The average GPA will be computed across all sections of a given course taught by a given professor during that semester. Non-standard grades (such as withdrawal, incomplete, pass/fail, blank, etc.) will not be included in the calculation of the GPA." Please understand that I am required to follow this curve. I will not know where the cutoffs will be until I average out all the grades at the end of the semester and rank them. I will try to provide the statistics for the different tests, but cannot predict your grade at any point.

Please be aware that all assignments will be graded for both content and presentation. Double-check your work to assure that it is "polished" and doesn't contain typos or grammatical errors. Poorly written work will be graded significantly below what it would be if graded on content alone.

Any grade in this course may be appealed without prejudice. To appeal a grade, you must submit a written request (clearly stating your reasons for re-grading) within two weeks from the date you received the grade in question. I will consider your request and make a decision based on the assignment requirements and what is fair to all students in the class.

I consider it to be my responsibility to give you prompt and thorough feedback. I will return all work within two weeks of submission. However, since there are many students in my classes, my ability to provide extensive written comments is limited. If you would like to receive additional feedback about your performance on a specific assignment feel free to see me.

Academic honesty
You are responsible for following the University's honor system guidelines and the policies in this syllabus. If you are unclear about any of the regulations or policies, please see me. All suspected academic honesty violations will be reported to the Honor Council. If the student is found guilty, a grade of "F" will be given, in addition to any other sanctions imposed by the Honor Council.

COURSE SCHEDULE—WILL CHANGE

Date	Topic	Preparation
Thur, Aug 28	Course Introduction	
Tues, Sept 2	Introduction	Chapter 1 (Kroenke and Auer (K&A))
Thur, Sept 4	The Relational Model	Chapter 2 (K&A), Intro and Tutorials 1 and 2 Adamski and Finnegan (A&F). Read and go through the Tutorial using the data provided (and, if needed, the Review). To obtain data, go to Blackboard, download the zip file and "Extract All Files." You will download the data files for the Tutorial, the Review and Case 2.
Tues, Sept 9	SQL	Chapter 3 (K&A)
Thur, Sept 11	SQL Views	Online Appendix E (See page 454 in K&A)
Tues, Sept 16	**Guest Speaker**	
Thur, Sept 18	**Test 1**	Covers Chapters 1-3, plus Online Appendix E
Tues, Sept 23	Access	Adamski and Finnegan (A&F)—3. Read and go through the Tutorial (and, if needed the Review) using the data provided. **Turn in Fitness.accdb (2010) or Obrien.accdb (2013) Database for Tutorials 1 and 2 on Blackboard (from Case Problem 2 on pages 44-45 and 102-103.) All you need to turn in is the database itself, no extras (printouts, files, etc.)**
Thur, Sept 25	Data Modeling and the E-R Model	Chapter 4 (K&A) Tutorial 4 (A&F). Read and go through the Tutorial (and, if needed the Review) using the data provided.
Tues, Sept 30	Database Design	Chapter 5 (K&A)
Thur, Oct 2	Database Design (cont.)	Chapter 5 (K&A)
Tues, Oct 7	**Guest Speaker—Satish Lalchand**	Tutorials 3, 4(A&F) **Turn in Fitness.accdb (2010) or Obrien.accdb (2013) Database for Tutorials 3 and 4 on Blackboard (from Case Problem 2). All you need to turn in is the database itself, no extras (printouts, files, etc.)**
Thur, Oct 9	Database Administration	Chapter 6 (K&A)
Tues. Oct 14	**Test 2**	Covers Chapters 4-6 (K&A)
Thur, Oct 16	ERPs (SAP)	Guest Speaker from SAP, Sean Epstein. In preparation for Tuesday. Download ERP document from the web. Download SAP-ERP article from class web site. **Turn in Training.accdb(2010) or Tutoring.accdb(2013) Database for Tutorials 5 and 6 on Blackboard (from Case Problem 2). All you need to turn in is the database itself, no extras (printouts, files, etc.)**
Tues, Oct 21	ERPs (SAP)	Be sure you have downloaded ERP to computer.
Thur, Oct 23	Database Processing Applications	Chapter 7 (K&A)

Tues, Oct 28	Data Processing and BI	Chapter 8 (K&A) Tutorial 7 (A&F)
Thur, Oct 30	Data Visualization	Download Data Visualization powerpoints from website. Download Advanced Tableau lab from web site
Tues, Nov 4	Data Mining	Download Data Mining Lab from web site
Thur, Nov 6	Systems Analysis	Online Appendix F (See page 454 in K&A) Tutorial 8 (A&F)
Tues, Nov. 11	**Exam 3**	Covers Chapters 7 and 8, Appendix F (K&A)
Thur, Nov 13	Big Data	Steve LaValle et al., "Big Data, Analytics, and the Path from Values to Insights." MIT Sloan Management Review, Winter 2011, Vol. 52, No. 2, 21-32. http://sloanreview.mit.edu/files/saleable-pdfs/52205.pdf Downloads for Big Data will be posted on Blackboard.
Tues, Nov 18	Big Data	Optional: Download free ebook: "Harness the Power of Big Data: The IBM Big Data Platform" http://public.dhe.ibm.com/common/ssi/ecm/en/imm14100usen/IMM14100USEN.PDF. Read chapters 1-3.
Thur, Nov 20	Big Data	
Tues, Nov 25	Microsoft Visio	Instructions for Microsoft Visio will be given out in class
Thur, Nov 27	**THANKSGIVING**	
Tues, Dec 2	**Extra Credit Presentations on "Big Data in the News"** ***Final Access Project Due Dec 8.**	**Access Tutorials 7-8 Final Project Due Dec. 8 (by 5 p.m.). Upload just the Training.accdb(2010) or Tutoring.accdb(2013) database for Tutorials 7-8 (Case 2) on Blackboard (No extra printouts, files, etc.)**
Thur, Dec 4	**Extra Credit Presentations on "Big Data in the News"**	

If you believe you have a disability, then you should contact the Academic Resource Center (arc@georgetown.edu) for further information. The Center is located in the Leavey Center, Suite 335. The Academic Resource Center is the campus office responsible for reviewing documentation provided by students with disabilities and for determining reasonable accommodations in accordance with the Americans with Disabilities Act (ADA) and University policies.