M&IS 44043 - Database Management Systems

SYLLABUS

Fall 2010

COURSE INFORMATION:

Name of Course:	Database Management Systems
Term:	Fall 2010
Room:	210 BSA
Meeting Time:	3:45pm-5:00pm MW
Web Sites:	Course: http://vista8.kent.edu Publisher: http://wps.prenhall.com/bp_kroenke_database_11/ Oracle: http://babbage.bsa.kent.edu:5560/isqlplus
Prerequisites:	M&IS 24060, M&IS 24070
Course Description:	The design, implementation and management of data base management systems within organizations are studied from both theoretical and applied perspectives.

INSTRUCTOR INFORMATION:

Name of Instructor:	Dr. Alan Brandyberry
Office Address:	BSA A425
Telephone:	(330)672-1146
Office Hours:	1:00-3:30 PM Mon. & 2:00-3:30 PM Weds.
E-mail:	abrandyb@kent.edu

COURSE MATERIALS:

Required Text: David M. Kroenke; David J. Auer, *Database Processing: Fundamentals, Design and Implementation*, 11th Edition, Prentice Hall, 2010 (ISBN 9780132302678)

Suggested Text: Any Oracle 10g manual may be useful. I suggest that you wait until you see what's needed before purchase.

COURSE OBJECTIVES, REQUIREMENTS & EVALUATION:

Course Objectives: Upon completion of this course, students will:

1. Understand the role of databases in business and other environments.

2. Be acquainted with the various concepts associated with designing, implementing, and using databases.

3. Understand the use of relevant analysis and design tools (e.g. entity relationship diagrams).

4. Obtain a working understanding of structured query language (SQL), normalization, transaction management and concurrency control.

5. Understand object-orientation and object-oriented databases.

6. Be acquainted with current issues concerning data and database management (e.g. XML).

In order to succeed in this course, it is essential that you do the assignments (reading, written, and database assignments) independently and in a timely fashion and come to class consistently and well prepared for the topic(s) to be covered. In leading the class discussion I will assume that every student has prepared for the class ahead of time; therefore, if you are not prepared, you will not be able to follow the discussion and will quickly become "lost".

Homework: Homework will be assigned on a regular basis. All assignments are to be individual efforts unless specifically assigned as a group project. The due date for assignments will be given when the work is assigned. Assignments

must be handed in at the beginning of the class. Submitting assignments electronically through Vista is encouraged but not required. If you have an excused absence you must turn in the assignment before the due date when the absence allows for planning ahead (weddings, group trips, interviews, athletics, etc.). Excused absences that are true emergencies and do not allow planning ahead will be dealt with individually. No makeups will be given to compensate for a missed assignment once the due date has passed. Some in class exercises may be graded as homework (if you are not present or excused you will receive a zero).

All homework combined will be worth 50 pts of the total points for the course. Each assignment will be given a grade representing the percentage correct of the assignment according to the criteria given for that assignment. The assignments will all be weighted equally unless stated otherwise (i.e. an especially involved assignment might be worth 2 homeworks) so the points each assignment is worth depends on the total number of assignments given (i.e. your overall assignment % will determine your assignment grade; 90% = 45 pts).

As I believe that homework is best used as a learning experience rather than an evaluation of learning, most, if not all, homeworks will be graded on an effort basis. Homeworks will generally not be 'corrected' but rather will have solutions provided for the student to compare their answers to.

Project: Each student will design and implement a small database. Project details will be announced early in the semester. Items will be turned in and graded on an ongoing basis. Late submission of required components will not be accepted except in extraordinary circumstances. Projects will be graded on overall quality and the meeting of specific requirements. Projects will be done individually.

Reading: The chapter or portion of a chapter that is to be discussed in class should be read by the student before class. No grade will be assigned for this portion, however, see the section on quizzes concerning failure to perform in this area.

Quizzes: No unannounced or announced quizzes are planned, however, if problems are encountered concerning attendance or keeping up with the material, unannounced quizzes may be given at the discretion of the instructor. Quizzes will be included in the homework grade (1 quiz = 1 homework).

Exams: Three examinations will be given at regular intervals during the semester. Dates for exams are on the syllabus and, unless unforeseen conflicts occur, are firm. Since some flexibility in time allowed each topic is necessary, the topics covered on each exam may vary slightly from those on the syllabus. The content relevant to each exam will be announced before the exam is given. Each exam is worth 100 pts.

Students may feel free to inquire into any aspect of examinations or their scores during office hours. However, to encourage quick resolution of problems or concerns that may arise, issues must be raised with the instructor within one week following return of the exam grade. If the instructor is not contacted prior to that time the examination will be considered closed and grades finalized.

Attendance: Students are responsible for all in class announcements and material whether absence is excused or unexcused. Missed assignments/quizzes will not be made up. In certain cases (emergencies) the score will be dropped. All other cases receive a score of 0. Missed in-class exercises will receive a score of zero and cannot be made up.

GRADES:

Exam I	100 pts.
Exam II	100 pts.
Exam III	100 pts.
All Homework Combined	50 pts.
Project	100 pts.
TOTAL	450 pts.

The following scale indicates the minimum course percentage required for each letter grade:

Letter-grade determinations will be made on the following percentage basis (your score rounded to the nearest whole number): A >93; A- 90-92; B+ 87-89; B 83-86; B- 80-82; C+ 77-79; C 73-76; C- 70-72; D+ 67-69; D 60-66 F <60. A lower curve may be substituted at the discretion of the instructor. Grade curving is only done at the end of the term for final grades. Do not try to anticipate the curve - target the score that will get you the desired grade on the straight scale above. Students are welcome at any time to inquire into their current grade status during office hours.

TENTATIVE SCHEDULE:

Day	Topics	Readings
Aug 30	Course Introduction Introduction to the Database Environment	Chapter 1
Sept 01, Sept 08, Sept 13	Introduction to Structured Query Language (SQL) (note: Sept 06 is Labor Day – no class)	Chapter 2
Sept 15, Sept 20	The Relational Model and Normalization	Chapter 3
Sept 22, Sept 27	Database Design Using Normalization	Chapter 4
Sept 29	Catch up/Review	
Oct 04	Exam 1	
Oct 06, Oct 11	Data Modeling with the Entity-Relationship Model	Chapter 5
Oct 13, Oct 18	Transforming Data Models into Database Designs	Chapter 6
Oct 20, Oct 25, Oct 27	SQL for Database Construction and Application Processing	Chapter 7
Nov 01	Catch up/Review	
Nov 03	Exam 2	
Nov 08, Nov 10	Database Redesign	Chapter 8
Nov 15, Nov 17	Managing Multiuser Databases (note: Nov 22 – Instructor will be out of town at a conference – students will work on their projects)	Chapter 9
Nov 29, Dec 01	Database Processing with XML	Chapter 12
Dec 06	Database Processing for Business Intelligence Systems	Chapter 13
Dec 08	Catch up/Review – Final Projects Due	
Dec 16 7:45 – 10:00 AM	Exam 3	

The Following Policies Apply to All Students in this Course:

A. Students attending the course who do not have the proper prerequisite risk being deregistered from the class.

Students have responsibility to ensure they are properly enrolled in classes. You are advised to review your official class schedule (using Student Tools on FlashLine) during the first two weeks of the semester to ensure you are properly enrolled in this class and section. Should you find an error in your class schedule, you have until Sunday, September 5, 2010 to correct the error. If registration errors are not corrected by this date and you continue to attend and participate in classes for which you are not officially enrolled, you are advised now that you will not receive a grade at the conclusion of the semester for any class in which you are not properly registered.

B. Academic honesty: Cheating means to misrepresent the source, nature, or other conditions of your academic work (e.g., tests, papers, projects, assignments) so as to get undeserved credit. In addition, it is considered to cheating when one cooperates with someone else in any such misrepresentation. The use of the intellectual property of others without giving them appropriate credit is a serious academic offense. It is the University's policy that cheating or plagiarism result in receiving a failing grade for the work or course. Repeat offenses result in dismissal from the University.

C. Course Withdrawal:

For fall 2010, the course withdrawal deadline is Sunday, November 7, 2010.

D. Students with disabilities:

University policy 3342-3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Student Accessibility Services (contact 330-672-3391 or visit http://www.registrars.kent.edu/disability/ for more information on registration procedures).