B AD 64082 - Database Management Systems

Sections 001, 600, 900

SYLLABUS
Fall 2009

COURSE INFORMATION:

Name of Course:	Database Management Systems
Term:	Fall 2009
Room:	Vaughn-Hoover Electronic Classroom, Main Campus; SITE, Lorain Campus; 30 fine Arts, Stark Campus
Meeting Time:	6:15 pm- 8:45 pm M
Course Web Site:	http://vista8.kent.edu
Prerequisites:	Graduate standing and permission of instructor.
Official Course Description:	In-depth investigation of intelligent database management systems in support of business decision-making. An understanding of relational databases is assumed. Object-oriented and semantic databases will be explored.

INSTRUCTOR INFORMATION:

Name of Instructor:	Dr. Alan Brandyberry
Office Address:	BSA A425

Telephone:	(330) 672-1146
Office Hours:	Monday 4:00-6:00pm, 8:45-9:15pm; Wednesday 4:00-6:00pm, 8:45-9:15pm (and by appointment)
E-mail:	abrandyb@kent.edu
Instructor Web Site:	TBA

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 11g manual may be useful. 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 areas of database research.

7. 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. It is important to do practice problems to gain necessary skills as we go through many of these topics. Generally, the only reason homework such as this is graded is to motivate students to do it. It is my belief that graduate students should be self-motivated and realize the importance of these exercises. In line with that belief I will assign practice problems, I will distribute/publish solutions, and I will take questions on the problems in class, however, I will not collect and grade these problems.

Article Reviews: Each student shall review a total of six articles during the semester. Three of these are to be practitioner-oriented (trade journals) and three are to be from scholarly sources. Specifics and format will be announced before the first article is due. A brief discussion of some articles will be informally presented in class (due to the class size this term we will only present selected articles).

Project: See separate document for project specifications. Only the final project will be graded, however, items will be turned in on an ongoing basis. Feedback will be provided for these items but they will not be graded until submitted with the final project. Late submission of required components will negatively impact the project grade at the rate of 1 percentage point per item per day. The group project is worth 150 pts and is due December 7th before class time.

Reading: The chapter or portion of a chapter that is to be discussed in class should be read by the student before class. You should also be prepared to answer the questions at the end of each chapter (you need not write out the answers unless specifically asked to do so. 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: Two examinations will be given at regular intervals (midterm & final) 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.

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:

Midterm	100 pts. (33.3%)
Final	100 pts. (33.3%)
Article Reviews	30 pts. (10.0%)
Project	70 pts. (23.3%)
TOTAL	300 pts. (100%)

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.

TENTATIVE SCHEDULE:

Day	Topics	Readings
Aug 31	Course Introduction Introduction to the Database Environment Introduce SQL	Chapter 1
Sep 07	***Labor Day Observance***	
Sep 14	Introduction to Structured Query Language (SQL)	Chapter 2
Sep 21	The Relational Model and Normalization	Chapter 3
Sep 28	Database Design Using Normalization ***Project Description Due***	Chapter 4
Oct 05	Data Modeling with the Entity-Relationship Model	Chapter 5
Oct 12	Transforming Data Models into Database Designs ***Project ERD Due***	Chapter 6
Oct 19	***Midterm Exam***	
Oct 26	SQL for Database Construction and Application Processing	Chapter 7
Nov 02	Database Redesign	Chapter 8
Nov 09	Managing Multiuser Databases	Chapter 9
Nov 16	The Web Server Environment ***(DL Class – taped lecture, threaded discussion for questions, do NOT come to class physically)***	Chapter 11
Nov 23	Database Processing with XML	Chapter 12
Nov 30	Database Processing for Business Intelligence Systems	Chapter 13

Dec 07	***Project Presentations – Final Projects Due***	
Dec 14	***Final Exam***	

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.

B. 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 6, 2009 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.

C. 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. 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 (0 points) for the work or course. Repeat offenses may result in dismissal from the University.

D. For Fall 2009, the course withdrawal deadline is Sunday, November 8, 2009. Withdrawal before the deadline results in a "W" on the official transcript; after the deadline a grade must be calculated and reported.

E. Students with disabilities: University policy 3342-3-18 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 the Student Accessibility Services (contact 330-672-3391 or visit http://www.registrars.kent.edu/disability/ for more information on registration procedures).