IS 413 – Database Concepts

Fall, 2009

Dr. Ronald Freeze

Syllabus

EMPORIA STATE UNIVERSITY
SCHOOL OF BUSINESS
DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS

COURSE NO AND TITLE:    IS 413 Database Concepts
MEETING PLACE:           CH 415
MEETING TIME:            9:30 – 10:50 pm Tue and Thu
PREREQUISITES:          IS 333 Business Computer Systems Analysis OR concurrent
                        AND Junior standing
INSTRUCTOR:             Dr. Ronald Freeze
OFFICE:                 CH 105
OFFICE HOURS:           10 -12 am MW and by appointment
TELEPHONE NUMBER:       (620) 341-5685
                        E-Mail:  rfreeze@emporia.edu

REQUIRED TEXTS:
Kroenke, David M. Prentice Hall. ISBN 0-13-167267-3
Software: Microsoft SQL Server; it is installed in the labs in the School of Business and
Microsoft Visio along with your use of Microsoft Office 2007 applications as needed

NOTE: The contents of this syllabus are subject to change based on the needs of the
students and professor. Changes will be posted on BlackBoard and communicated
through email.

COURSE DESCRIPTION:
The basic objectives of this course are to develop an understanding of database development
including data modeling, normalization, and implementation in the relational model using SQL,
to develop an understanding of database administration, and to explore other database models.
The models include object-orientated and client-server implementations.

COURSE OBJECTIVES:
On successfully completing this course, the student will be able to:

- Understand fundamental principles and theories of database
- Apply course materials by improving thinking, problem solving and making decisions by
  implementing group projects.
- Gain Factual Knowledge (terminology, methods, and trends) about Database.
- Understand the database environment
- Understand the functions of DBMS
- Understand different data models
- Understand Client-Server Database Systems
- Understand the functions of the database administrator
- Analyze and design relational database applications (Normalization process)
- Write intermediate-level SQL queries
SPECIAL FEATURES OF THE COURSE:
This course will have a number of assignments – some computer based and some written; some will be individual work and some will require work to be completed by groups. Each project should be prepared on a computer and printed or submitted electronically according to the directions on the assignment.

All assignments will be due on the due date. Late assignments will be penalized at 10% per day (including weekends for those assignments that are electronically submitted.) Peer evaluations will be part of the project grade. The evaluation of your peers will be provided in a separate document.

ALL ASSIGNMENTS
All assignments will be submitted through blackboard prior to the stated deadline. Each assignment submitted should format the header of the document similar to the header of this syllabus.

- Date in the left hand corner
- Course centered in the middle
- Your name will replace mine on the right side
- Semester is centered below the course
- Chapter and homework numbers under your name

All files should be named according the following convention.

- FreezeCh1-IS413.doc – example
- Your last name is first and should replace Freeze in the example
- Ch stands for Chapter and number following is the chapter assignment number (1, 2, 3 etc.)
- Finally, a dash (-) followed by the course number

All assignments must be submitted using the ASSIGNMENTS section in blackboard. (for how to submit your work, please see FAQ document posted in the COURSE INFORMATION SECTION on Blackboard).

COURSE EVALUATION PROCESS:
Basis of Assignment of Grades: The evaluation will be based upon total points obtained from examinations, homework, and assigned projects.

The grading scale will consist of total points earned:

- 90% - 100% of total points – A
- 80% - 89% of total points – B
- 70% - 79% of total points – C
- 60% - 69% of total points – D
- 00% - 59% of total points – F

Your grade will be determined by the percent of points accumulated from the following (Note: These points are approximate and may change by up to 15%):
Exams (3 exams)  400
Homework  300
Group Project  300

Makeup of regular scheduled exams will be allowed (time set by your instructor) only if the instructor is notified in advance of a student's absence and then only if the absence is considered excused. If you are unable to notify the instructor in advance, then notify the instructor as soon as possible.

**ATTENDANCE POLICY:**
Attendance will not be taken for the purpose of assigning grades. However, there are several in class assignments that will be handed in for grading. These assignments are only available during class and therefore the points for the assignments are only available during class. In addition, those individuals missing class will have a distinct disadvantage in learning the materials necessary to pass the course. Attendance is therefore strongly encouraged.

**Withdrawal Policy:**
The instructor may initiate a withdrawal for excessive student absences. Students who decide to withdraw and receive an automatic "W" must complete the formal withdrawal procedure by **October 28th, 2009**. After that date, a student may not withdraw from the class nor may the instructor assign a "W". School of Business students may receive no more than 2 D's in core classes in order to graduate.

**Academic Dishonesty:**
At Emporia State University, academic dishonesty is a basis for disciplinary action. The faculty member in whose course or under whose tutelage an act of academic dishonesty occurs has the option of failing the student for the academic hours in question and may refer the case to other academic personnel for further action. You are encouraged to share your knowledge and experience with your fellow students; however, the final product of exams and assessments are meant to be individual efforts and those that are not may be punished by failure (score of zero) on that assignment and referral to the appropriate University offices.

All students are expected to pursue their scholastic careers with honesty and integrity. Academic dishonesty includes, but is not limited to, activities such as cheating and plagiarism (presenting as one’s own the intellectual or creative accomplishments of another without giving credit to the source or sources). **Work on individual projects is assumed to be done by the individual whose name appears on the assignment, not as a collective effort.** If a student is discovered as participating in an act of academic dishonesty, they may be removed from the course with a grade of "F", and the matter may be referred for further action. Emporia State University may impose penalties for academic dishonesty up to and including expulsion from the university.

**Disabled Student Policy:**
Please contact the instructor immediately if (1) you have or think you have a disability or medical condition which may affect your performance, attendance, or grades in this class and for
which you wish to discuss accommodations of class related activities or schedules, (2) you may require medical attention during class, or (3) you may need special emergency evacuation preparations of procedures.

Emporia State University will make reasonable accommodations for persons with documented disabilities. Students need to contact the Director of Disability Services and the professor as early in the semester as possible to ensure that classroom and academic accommodations are implemented in a timely fashion. All communication between students, the Office of Disability Services, and the professor will be strictly confidential. Contact the Office of Disability Services and Non-Traditional Student Programs at Room 211 S. Morse Hall, 620/341-6637 Voice, 620/341-6646 TTY, or via e-mail disabser@emporia.edu. Accommodations are provided on an individualized, as-needed basis after needs and circumstances have been evaluated.

COURSE TOPICS:
NOTE: Unforeseen circumstances and/or instructor discretion may cause changes in the following sequence and content.

1. Introduction
2. Introduction to Structured Query Language
3. The Relational Model and Normalization
4. Database Design Using Normalization
5. Data Modeling with the Entity-Relationship Model
6. Transforming Data Models into Database Designs
7. SQL for Database Construction and Application Processing
8. Database Redesign
9. Managing Multiuser Databases
10. **WE WILL SKIP THIS CHAPTER** – Managing Databases with Oracle

**As time allows we will cover parts of the following chapters:**

12. ODBC, OLE, DB, ADO, and ASP
13. XML and ADO.NET
14. JDBC, Java Server Pages, and MySQL
15. Database Processing for Business Intelligence Systems