

OKLAHOMA STATE UNIVERSITY

WILLIAM S. SPEARS SCHOOL OF BUSINESS DEPARTMENT OF MANAGEMENT SCIENCE AND INFORMATION SYSTEMS

MSIS 4013 - Course Syllabus – Fall, 2007

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|-----------------------------------|---|
| Course Number & Title: | MSIS 4013 Database Systems Design, Management and Administration |
| Sections Offered: | MSIS 4013.801 W 4:30 – 7:10PM MH 2315 N. Romano |
| Instructor: | Nicholas C. Romano, Jr. Ph.D. |
| Office: | 344 North Hall |
| Office Hours: | TBA |
| Telephone: | 918-594-8506 – (Rarely check voice mail here) |
| E-mail: | nicholas.romano@okstate.edu – (Best method of communication) |
| Prerequisites: | Prerequisites: MSIS 3303 and MSIS 3363 (or equivalents). |
| Required Texts: | BOTH REQUIRED |

1: Fundamentals of Database Management Systems (2004) by Mark L. Gillenson John Wiley & Sons, Inc. ISBN: 0-471-26297-8 For more information see:

<http://he-cda.wiley.com/WileyCDA/HigherEdTitle/productCd-0471262978.html>

2: Microsoft Office Access 2003: Comprehensive Concepts and Techniques

Shelly, Cashman, Pratt, ISBN: 0-619-20040-5 © 2007 Publish date: January 26, 2004.

Other Materials/tools: D2L Account; Email Account; Word; PowerPoint, Access; Excel; Backup Media – CD RW or Transfer Device, Co-Office Client; GS-Account (The last two will be assigned and explained)

Notes on D2L: All students have a D2L account and are added to the class and will see it when they login. URL: <https://oc.okstate.edu/>

Course Description. Theoretical aspects and business of data models and databases. Data security, maintaining database integrity, and database administration in a shared, networked or distributed environment. Related database concepts including object-oriented databases and web database development. Analysis, design, and implementation of a database system using advanced DBMS tools and high-level Languages to retrieve, manipulate data. Required for MIS or MSCS majors.

Course Objectives. The objective of this course is to provide students with the necessary knowledge and skills to effectively utilize DBMS technology. This includes: understanding database terminology, concepts, and organizational implications of database management systems; using analysis, design, development, and implementation methodologies relevant to database management systems, including entity-relationship (ER) modeling, principles of normalization, and structured query language (SQL); understanding database administration issues; and developing a DBMS-based information system.

Process for Evaluation and Grade Assignment. There are 1000 points possible, allocated as follows.

| | |
|---|-------------|
| Exam #1 | 100 |
| Exam #2 | 150 |
| Final Exam | 200 |
| Homework Assignments/Case Problems (6 @ 50 points each – <i>lowest score will be dropped</i>) | 250 |
| Quizzes (unannounced) (8 @ 10 points each – <i>lowest score will be dropped – no make-ups</i>) | 70 |
| Major Project | 200 |
| Participation/other | 30 |
| Total Class Points | 1000 |

Major Project Point Break Down:

| | |
|-----------------------------------|------------|
| Project Database | 100 |
| Project Report | 50 |
| Peer Evaluations | 10 |
| Final Presentation | 40 |
| Total Major Project Points | 200 |

Grades will be **assigned** according to the following point distribution.

| | | |
|-----------------|---|---------|
| 900-1000 points | = | A 90% + |
| 800-900 points | = | B 80% + |
| 700-800 points | = | C 70% + |
| 600-700 points | = | D 60% + |
| below 600 | = | F < 60% |

Exams. There will be two mid-term exams and a final exam. They will cover assigned readings from both of the required texts, assignments and associated concepts, and material presented and discussed in class and worked on in the projects. All exams may be comprised of the following types of questions: true-false, multiple-choice, matching, short-answer, problems, and essays. Exams will be retained by the instructor. *You are expected to take the exam during the scheduled time. If it is not possible for you to be present for an exam, please contact me in advance. Makeups can be taken in the OSU-Tulsa Testing Center; but they require 24 hours notice in advance.*

Homework Assignments/Case Problems. (INDIVIDUAL WORK ONLY) There are 6 case problems that must be turned in throughout the semester. You are expected to read and work through the tutorials that precede the assignments/case problems in the *Access 2003* text. The case problems require critical thinking to interpret a problem situation and apply the skills you have learned in the tutorials. *Assignments/case problems must be Emailed to Dr. Romano through Email. The output/answers emailed with only one assignment per email message. Assignments are due at the start of class time on the due date and will not be accepted late. The Lowest score will be dropped.*

Major Project. The major project will include the analysis, design, development, and implementation of a database management system using Access 2003 (or another comparable database management system). This project will apply most of the issues and concepts covered during the semester to a “real-world” DBMS application. The projects will be developed by teams of four to five students.

Course Policies (Any not covered will follow CBA and OSU Policy to the letter.)

All Homework and Project Deliverables to be turned in via D2L Email.

Homework will NOT be accepted LATE except under extremely special circumstances with written Documentation of a valid excuse.

CLASS ATTENDANCE: Since each part of this course builds on previous material, it is essential that you attend every class period. Class discussions and contributions from class members add depth and interest to class sessions, and you are needed to contribute your share. Material supplemental to the text will be presented in class, and you will be held responsible for it. If you should have to miss a class, determine what you have missed and take appropriate measures.

SPECIAL ACCOMMODATIONS: According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his or her disability and to request accommodations. If any member of a class thinks that he/she has a qualified disability and needs special accommodations, he/she should notify the instructor and request verification of eligibility for accommodations from the Office of Student Disability Services, 315 Student Union. Please advise the instructor of such disability as soon as possible, and contact Student Disability Services, to ensure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations.

ACADEMIC INTEGRITY:

I will follow OSU's Commitment to Academic Integrity: "*I will respect OSU's commitment to academic integrity and uphold the values of honesty and responsibility that preserve our academic community.*" I expect all students to follow this commitment.

The **academic integrity policy** recognizes the obligation of all OSU faculty and **students** to **understand, communicate,** and **abide by** the standards of academic integrity.

See: academicintegrity.okstate.edu and see **Academic Integrity Policy and Procedures**

<http://academicintegrity.okstate.edu/doc/aipp.pdf>

See also: Academic Integrity Guidelines for OSU Students
<http://academicintegrity.okstate.edu/doc/aistudenthandout.pdf>

What I will do WHEN/IF I detect cheating. If I have evidence that would convince a reasonable third party that the student "*more likely than not*" cheated on an exam, plagiarized, or committed some other academic integrity violation, my first move will be to contact the Office of Academic Affairs to obtain the services of an academic integrity facilitator and then to inform the student in writing (using the Academic Integrity Violation Notification form) of the charge, eventually setting up a meeting with the student and the facilitator. The academic integrity policy no longer requires proof of the student's "intent" to cheat. See the *Academic Integrity Handbook* or academicintegrity.okstate.edu for detailed procedures and forms.

We will also meet in my Lab a few times during the semester to allow us to use some special tools to work on the project and to introduce you to those tools. More on this later.

TENTATIVE Week-by-week Schedule

Legend: Gillenson {G}; Shelly, Cashman, et al. {SC}; Project = P

See also: OSU- SYLLABUS ATTACHMENT FALL 2007 <http://osu.okstate.edu/acadaffr/aa/syllabusattachment-Fall.htm>

See the Calendar in D2L for PPT Presentations and other reading materials

| Week: Date | Topic | Assigned Reading | Homework DUE |
|---|--|--|---|
| 1: W 8-22-2007 | Class Introduction Data: The New Corporate Resource. {G} Databases | {G} Chapter 1 | Create D2L Student Homepage in CLASS |
| 2: W 8-29-2007 | Simple File Storage and Retrieval. {G} Creating and Using a Database {SC} Data Modeling. {G} | {G} Chapter 2 {SC} P1 AC 4-50 {G} Chapter 3 | P1 CASE 2 AC 63 |
| Monday 9-3 | Labor Day (OSU-Tulsa campus closed) | | |
| 3: W 9-5-2007 | Data Modeling. {G} Maintaining a Database {SC} | {G} Chapter 3 {SC} P3 AC 114-163 | P2 CASE 2 AC 112 |
| 4: W 9-12-2007 | Data Modeling {G} Database Management System Concept {G} Querying a Database Using the Select Query Window {SC} | {G} Chapter 3 {SC} P2 66-106 {G} Chapter 4 | P3 CASE 2-AC 171 |
| 5 W 9-19-2007 | Database Management System Concept {G} Querying a Database {SC} The Relational Database Model: Introduction. {G} Reports, Forms, and Combo Boxes {SC} | {G} Chapter 4 {SC} P4 AC 129-158 {G} Chapter 5 | P4 CASE 2 AC 164-164 |
| 6 W 9-26-2007 | EXAM 1 – CHS. 1, 2, 3, 4, 5 {G} TEAMS SIGN UP | TEAMS SIGN UP | P5 CASE 2 AC 311 |
| 7 W 10-3-2007 | Return Exam 1 – Review Answers The Relational Database Model: Additional Concepts {G} Logical Database Design. {G} Enhancing Forms with OLE fields, hyperlinks, and subforms {SC} MAJOR PROJECT ASSIGNED | {G} Chapter 6 {SC} P5 259-302 {G} Chapter 7 MAJOR PROJECT ASSIGNED | P6 CASE 2 AC 374 MAJOR PROJECT ASSIGNED |
| M 10-8 Tu 10-9 | Fall Break | | |
| 8 W 10-10-2007 | Fall Break no class | | |
| 9 W 10-17-2007 | 1 st half – 2315 Physical Database Design. {G} 2 ND Half PROJECT TEAM DAY – MEET in Dr. Romano’s Lab Switchboards, Pivot tables and Pivot charts {SC} | {G} Chapter 8 PROJECT TEAM DAY – MEET in Dr. Romano’s Lab {SC} P6 314-364 | PROJECT TEAM DAY –MEET in Dr. Romano’s Lab |
| 10 W 10-24-2007 | Relational Data Retrieval: SQL. Data Administration, Database Administration, Data Dictionaries. {G} Advanced Report/Form Techniques {SC} PROJECT PRESENTATIONS-DESIGN | {G} Chapter 9 {G} Chapter 11 {SC} P7 AC 402-444 | |
| 11 W 10-31-2007 | EXAM 2 – CHS 6, 7, 8, 9, 11 {G} | | |
| 12 W 11-7-2007 | Return Exam 2 – Review Answers Database Control Issues: Security, Backup and Recovery, Concurrency. {G} {G} Client/Server Database and Distributed Database. | {G} Chapter 12 {SC} P9 AC 530-577 {G} Chapter 13 | |
| 13 W 11-14-2007 | PROJECT TEAM DAY - MEET in Dr. Romano’s Lab Using Visual Basic and Creating multi-page forms {SC} | PROJECT TEAM DAY – MEET in Dr. Romano’s Lab {SC} P8 AC 458-522 | PROJECT TEAM DAY MEET in Dr. Romano’s Lab |
| 14 W 11-24-2007 | Thanks Giving Break No Class | Thanks Giving No Class | Thanks Giving Break No Class |
| 15 W 11-31-2007 | The Data Warehouse Database and the Internet{G} Review for Final MAJOR PROJECT DUE | {G} Chapter 14 {G} Chapter 15 MAJOR PROJECT DUE | MAJOR PROJECT DUE |
| 16 W 12-5-2007 Pre-finals Week | PROJECT PRESENTATIONS | PROJECT PRESENTATIONS | PROJECT PRESENTATIONS |
| 17 W 12-12-2007 6:00 to 7:50 PM Finals Week | FINAL EXAM (COMPREHENSIVE) Section 801 6:00 to 7:50 PM MH 2315 | | |