

# IS 240 – Database Management

NORWICH UNIVERSITY – Spring 2010

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## 1 COURSE DESCRIPTION

A study of the concepts and structures necessary to design and implement a database management system. Various data models will be examined and related to specific examples of database management systems. Techniques of system design, system implementation, data integrity, and file security will be examined. Prerequisite: IS228.

## 2 EDUCATIONAL OBJECTIVES

- Learn to use the technical language of database management systems (DBMS) correctly;
- Describe and apply data modeling using the entity-relationship model to practical information processing problems;
- Apply the relational model and normalization to data to establish sound database designs using MS-Access, MySQL, or Oracle as the student chooses;
- Learn to use SQL using the MS-Access or MySQL database programs as the student chooses;
- Deal effectively with problems of concurrent access on multiuser databases.

## 3 MECHANICS

### 3.1 Basic information

- Classes will meet from 13:00:03 to 13:49:57 every Monday, and Wednesday in Dewey 108; on Fridays class will meet in Dewey 108 for quizzes and exams and in the NUACC lab in the basement on alternate weeks for discussions and demos (see syllabus)
- Textbooks:
  - Post, G. V. (2007). *Database Management Systems: Designing & Building Business Applications, Fourth Edition*. Available online only from the author. Full instructions to be supplied. \$10.
- Post, G. V. (2007). *Designing & Building Business Applications: Microsoft Access 2007, Fourth Edition*. Versions also available for older versions of Access and for Oracle and for SQL Server.
- Software: MS-ACCESS 2007 available on NU lab computers throughout the campus; Oracle and SQL available on virtual systems provided through NUACC lab.
- After the first lecture, students are expected to read the assigned material *before* coming to class.

## 3.2 Grading

There will be no *grading on a curve*. There are no predetermined numbers of A, B and other grades – which means everyone can get an A ☺ (or everyone can fail) ☹.

### 3.2.1 Problems – 50% of the final grade – throughout course

Students will be assigned specific **lab exercises** for return *two weeks* after they are assigned. In addition, there is a semester-long independent project which assigned 15%; the weekly homework is thus assigned the remaining 35% that make up the 50% contribution to the final grade from homework. Delays in respecting these scheduled problems will result in reduction of 1 point of credit off for the problems **per day late**. Practical problems and learning to use a DBMS in practice are the most important parts of this course.

### 3.2.2 Biweekly quizzes – 10% of final grade

Starting in the third week, there will be CLOSED-BOOK multiple-choice/short answer / short problem quizzes. These five, 30-minute quizzes will cover two weeks of study, as shown in the syllabus. Each quiz will be followed by a 15 minute class discussion of the quiz.

### 3.2.3 Mid-term exam – 15% of final grade

Students will take a 50 minute, in-class OPEN-BOOK multiple-choice / short answer / short problem exam covering the material of the first six weeks.

### 3.2.4 Final exam – 25% of final grade – during final-exam period.

Students will write a 2½ hour examination covering all material in the course during the regularly scheduled exam period. Questions may include multiple choice, short answers, short essays and problems.

## 4 ABOUT THE INSTRUCTOR

For more information than most people want, see < <http://www.mekabay.com/cv> >.

V: 802-479-7937 (call any time – does not ring in home – only offices / mobile)

E: [mkabay@norwich.edu](mailto:mkabay@norwich.edu) (also [mekabay@gmail.com](mailto:mekabay@gmail.com))

Office: Dewey 209 Office Hours: <http://www.mekabay.com/schedule.pdf>

Instant Messaging (try any time)

Skype: mekabay

MSN: mekabay@gmail.com

AIM: msiapd

ICQ: 460817550 (on demand only)

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