ISE 305

Introduction to Database Technology

General Class Issues

- Dr. R. Kelly (contact info on class Web site)
- Hands-on class
  - In-class examples
  - In-class “Are We on Track” exercises
  - Software available on computers in CS2120 and Trans lab
  - Software generally available on your computer

Working exercises during class sessions is critical to your success
Textbook

- Data Management by Richard T. Watson
- There should be enough copies in Bookstore
- Also available used from Amazon (at a much lower price)

Supplemented with other WWW assigned readings

Class Web Site

- Check it regularly for
  - Syllabus
  - Office hours / location / e-mail addresses
  - Assignments and lecture code
  - Class notes (pdf) - Print notes before each class
  - References
  - Lots more

www.cs.sunysb.edu/~ise305
Session 1 - Introduction

Purpose

• Understand the use of databases in information systems
• Gain hands-on experience with small-medium sized DBs using a GUI front end
• Learn issues involved in enterprise style systems
• Emphasis on translating requirements into a DB
• Emphasis on thinking (not memorization)

Tailored to DB-related jobs in information systems

Course Objectives

• Become familiar with the ways in which databases interact with information systems
• Develop skills in entity modeling
• Learn substantial parts of SQL
• Gain hands-on experience with MS Access
• Gain hands-on experience with MySQL

What do you expect to gain from ISE305?
Grading

• A, B, C ... grades
• Grade basis
  • Exams
  • Assignments (regular and extra credit)
  • Class questions
• Exam questions will be “easy” if you have carefully completed the assignments
• In-progress grades will be available on the class Web site, make sure that you check it regularly
• Grade distribution resembles College overall grade distribution

Grading Formula

• All final grades are determined by a formula – applied equally to all students

You will get your ISE305 ID in an e-mail from me
Session 1 - Introduction

Grading

• Final grades are calculated based on a formula (no subjective grading)
• Formula weights all the components of the class
  • Exams/project
    • mid-term (30%), final (20%), project (30%), and quizzes (20%)
• In-class exercises – points will be added to your next exam score if your team is the first to complete the exercise correctly
• Assignments - Each assignment is graded S/U. Late submissions (up to 3) are scored as S.
• Quiz questions will be taken primarily from textbook Questions
• Final grade is based on your total score in all grade components (the higher the score, the higher the grade)

Assignments

• Submit programming assignments to me
  • To receive credit there must be a reasonable attempt and at a minimum, SQL code must use the correct syntax
• You may develop the solution to assignments by working in groups (max of 4), and submitting once for the group
• Make sure that all names are listed in HW submission
• Assignments not graded, but
  • You will get feedback from me
  • Submitting on-time counts to your grade
  • Components of the assignment problems will be used in exams
Session 1 - Introduction

Project

- There is one major project in the course
- The project covers most of the important concepts covered in the course

Project:
- Design a DB (on a topic of interest to you) and develop an implementation in Access or MySQL (MySQL preferred)
- DB should have 5-10 entities
- In-class presentations (RDM and final)

Project Steps …

- Details on Web site by mid-semester
- Form a group (maximum of 4 in a group)
- Write a statement of your database project.
- Create an initial RDM for your project
- Revise your proposed project RDM according to the feedback you have received
- Create the corresponding tables (from data input or data import)
- Create simple forms to enter data
Session 1 - Introduction

**Project Steps**

- Make up 5 "interesting" questions for your DB
- Create at least 2 hierarchical forms
- Create at least one report for your database
- Sign up for a time
- Add 3-5 queries to your database to answer interesting questions

You will submit project components over the last month or so of the class
– lateness counts

**Trans Lab**

- Software for the course should be available to you for your own computer
- Or - if you need to use a University computer for assignments, studies, etc. you can use the Trans Lab
  - Your Id and password will be automatically generated
  - Door combination will be given next week

Trans Lab will run related software systems
  (MS Access, MS Visio)
Trans Lab Accounts

- Your account is set up automatically
- ID is your NetID
- Password is your 9-digit student ID #
- If you are having difficulty logging in please send an e-mail to ntadmin@cs.sunysb.edu. The body of your message should contain your student ID number, your full name, and a brief description of the problem
- If you need an account created quickly, you should stop by room 1309 (bring ID)

DB Development Environment

- Assignments and class work
  - MS Access is used initially
  - MySQL used for most course work (primarily using a non-programming interface)
- Access available on MSDNAA (SAC)
- RDM Diagrams can be developed using any available tool, but MySQL Workbench preferred
**How to Get Help**

- Don’t get stuck on a DB problem - ask for help
- Send me an e-mail if you are having trouble
- See me by appointment or just stop by

> We expect to have multiple undergraduate TAs available, both during class and for after-class sessions

**How to Learn the Material**

- Don’t plan on memorizing material – plan on learning to think about the material – working problems is an important way to learn the material
- Plan on equal time spent reading text/notes and working hands-on exercises
  - Reading assignments on class Web page
  - Read material in advance
- Work on the assignments in a small group (1-4 students)
- Attend class / review the on-line class notes
Lectures

- Lecture slides will be available at the class Web site before each lecture
- Print a copy of the slide handout before class and use it to make notes
- Be sure to review the slides before each exam

Assignment # 1

- Part 1
  - Send me an e-mail (Hi!, name id#, “I can't (or can) read the class notes”, etc.)