

E&GSCI 408B - Introduction to Databases for GIS Users

Instructor: Ms. Feng Yang, GISP
Earth & Geographic Sciences Department, Umass/Boston
GIS Manager, Town of Brookline, Massachusetts
Tel: 617-730-2005
Email: feng.yang@umb.edu
<http://www.greatwallgis.com>

Date and Time: Wednesdays, 6PM-8:30PM, Fall 2005

Place: The GIT Lab, Room S/3/020, EEOS Department

Overview

This course is a hands-on beginner-level database course for GIS users. It covers the basic concepts of relational database design. It familiarizes students with techniques in using MS Access 2003. It introduces the concept of Geodatabase and it teaches students how to build and edit a Geodatabase using ArcGIS 9.

Grading

The final grading will be based upon:

- Mid-term exam (30%)
- Final exam (40%)
- Project (30%)

Required Textbook:

- Online Training Solutions, Inc. Microsoft Access 2003 Step By Step. 2005. Microsoft Press.
- ArcGIS 9 Building a Geodatabase. 1999-2005. ESRI.
- ArcGIS 9 Geodatabase Workbook. 2005. ESRI.

Reference books:

- Ken Getz, Paul Litwin & Andy Baron. Access Cookbook. Solutions to Practical User Interface & Programming Problems. O'Reilly Associates, Inc. 2005.
- Evan Callahan. Microsoft Access 2000 Visual Basic for Applications Fundamentals. Microsoft Press, 1999.
- Jan L. Harrington. Relational Database Design Clearly Explained. Second Edition, Morgan Kaufman.
- Steven Roman. Access Database Design and Programming. Third Edition, O'Reilly & Associates, Inc. 2005.
- Michael Zeiler. Modeling Our World: The ESRI Guide to GeoDatabase Design. ESRI Press, 1999.

SYLLABUS

DATE	SESSION	COURSE OUTLINE/LAB WORK
09/7/2005	Lecture 1 Lab 1	Relational Database Basics Getting to Know MS Access 2003 Access Lesson 1
09/14/2005	Lecture 2 Lab 2	Understand an Organization's Workflow Creating an Access Database Access Lessons 2, 3
09/21/2005	NEARC No Class	Northeast Arc Users Group Conference
09/28/2005	Lecture 3 Lab 3	Forms, Queries and Ways to Restrict Data Access Lessons 4, 5, 6
10/5/2005	Lecture 4 Lab	Reporting, Switch Board Manager and Securing Database Lessons 7, 8, 9
10/12/2005	Lecture 5 Lab 5	Working with Pages and Modules Lesson 10
10/19/2005	Exam	<u>Mid-Term Exam</u>
10/26/2005	Lecture 6 Lab 6	Introduction to ArcGIS 9 and Geodatabase Building a GeoDatabase Chapter 1
11/2/2005	Lecture 7 Lab 7	Creating New Items and Importing Data Building a GeoDatabase Chapter 2 & 3
11/9/2005	Lecture 8 Lab 8	Topology (1) Building a GeoDatabase Chapter 4
11/16/2005	Lecture 9 Lab 9	Topology (2) Building a GeoDatabase Chapter 4
11/23/2005	Training No Class	
11/30/2005	Lecture 10 Lab 10	Subtypes and Attribute Domains Building a GeoDatabase Chapter 5
12/7/2005	Lecture 11 Lab 11	Define Relationship Class Building a GeoDatabase Chapter 6
12/14/2005	Lecture 12 Lab 12	Managing Annotation Building a Geodatabase Chapter 8
12/21/2005	Exam	<u>FINAL EXAM</u>