KENT STATE UNIVERSITY
School of Library and Information Science Workshop

Database Design and Applications I: Introduction to Database Systems

SYLLABUS

Instructor:

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Credit: One

Intended Audience:

MLIS students, librarians, information specialists, and anyone interested in understanding database systems, learning the basics of how to design a database system, and getting some hands-on experience in building a database. Attendees should have some familiarity with Windows 95/98/2000/xp and Microsoft Office applications.

Goals and Objectives:

- To help attendees understand the concepts of database systems.
- To introduce the process of creating a database.
- To provide a working knowledge of designing a database so that attendees can implement the skills learned from the workshop in building a simple database in practice.

Benefits:

Attendees will gain knowledge of database systems and database design in general and obtain the necessary skills to build a database system. Successful attendees will be able to build a working database system with Microsoft Access.

Instructional materials and textbooks:

- Required Textbook:
  Joseph J. Adamski, & Kathleen T. Finnegan (2008). New Perspectives on Microsoft Office Access 2007, Comprehensive, 1st Edition. ISBN-10: 142390589X | ISBN-13: 9781423905899.
- Additional detailed handouts will be provided during the workshop.
- Student disks: Each student needs a USB quick/flash drive for assignments and project.
- The files for Access hands-on exercises and assignments will be provided.

Explanation of study/lab hours required outside of regular class time:

1. Workshop readings and preparation: 8 hours.
2. Workshop assignments: 25 hours
3. Final project that applies the knowledge and skills learned from the workshop to build a real database with Microsoft Access: 5 hours

(Total: 38 hours for 1 credit)

Method of evaluating participants:

Final grades will be determined based on all the assignments and a final project (for graduate only). Graduate and undergraduate students will be evaluated differently in terms of amount and complexity of work, please see the assignments handout for details. Attendees should achieve at least 70% correct answers to be awarded a Satisfactory grade.

You may not have enough time to finish the assignments during this workshop, but it should be very clear to you how to do these assignments after the workshop. All assignments and final project are due on the date specified in your assignments handout.

Students with Disabilities:

In accordance with University policy, if a student has a documented disability and requires accommodations to obtain equal access for a course or workshop, he or she is responsible for notifying the instructor at the beginning of the course or workshop in which an accommodation is required. Please note that it is necessary for the student to first verify his/her eligibility for requested accommodations through the Office of Student Accessibility Services (SAS) located on the ground floor of the DeWeese Health Center at the Kent Campus (330-672-3391). To do this, he or she must schedule an appointment with an SAS staff member and provide the SAS office with appropriate documentation of his or her disability. Upon verification, the SAS staff member will present the student with "accommodation letters" to give to his or her instructors.

Technological Competencies

Students must be familiar with basic computer operations (e.g., copying and printing files, moving among directories and subdirectories), logging on to a network, using a modem and/or an Internet Service Provider, and using a word processor.

Attendance Policy:

Students who are not officially enrolled are not eligible for course credit. Students may not enroll after official deadlines for the workshop unless there is proof of University error.

Students MUST attend the entire two days of a workshop in order to receive credit. If your schedule does not allow you to attend the full-day workshop on both days, then please do not register for the workshop. If you miss "just the morning" or "just the afternoon" of a workshop, you will receive a grade of NF (Never Attended--F).

For the online version of this workshop, students must log in to the workshop site on a weekly basis and participate in all class activities online.

Policy on Incomplete Grades

A complete statement on INCOMPLETE grades is available upon request. In summary, it states that the student must be earning a "C" (2.0) grade or better and be unable to complete the work before the end of classes due to extenuating circumstances. The student must initiate the request, provide appropriate documentation, and make arrangements to make up the incomplete work. For undergraduate students, Incompletes must be made up by the end of the following semester, and for graduate students, Incompletes must be made up within one calendar year, or an extension granted, otherwise a default grade of "U" will be assigned.

Cheating and Plagiarism

Both cheating and plagiarism are prohibited. See the University Policy Register for additional details on cheating or plagiarism: http://www.kent.edu/policyreg/archive.asp?ChapterID=4 – see section 3342-3-07.

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WORKSHOP OUTLINE

Pre-workshop readings and preparation:

- Read "Getting Started with Microsoft Office 2007" in Textbook
- Read "Appendix: Relational Databases and Database Design" in Textbook
- Read Level I tutorials: Tutorial 1 to Tutorial 4
- Obtain a USB quick/flash drive for assignments and project

Topics:

- Introduction to database concepts
  - Database systems
  - Database models

- The Entity-Relationship (E-R) model
  - Concepts
  - Using E-R model to design a database at the conceptual level

- Implementing E-R models: Relational databases
  - Convert E-R diagram to tables: Jackson's rules

- Tutorial 1: Creating a Database
  - **Assignment 1**: Review Assignments

- Tutorial 2: Building a Database and Defining Table Relationships
  - **Assignment 2**: Review Assignments

- Tutorial 3: Maintaining and Querying a Database
  - **Assignment 3**: Review Assignments

- Tutorial 4: Creating Forms and Reports
  - **Assignment 4**: Review Assignments

- Review of the workshop and discussion of workshop project