

**University of  
Northern  
Iowa**

*Curriculum and Instruction*  
*Educational Technology*

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### Course Number and Title:

**Course Number:** 240:140g      **Location:** SEC 206 (inside 222)  
**Course Title:** Using Databases in Education      **Day and Time:** Thurs: 6:00 - 8:50

### Professor's Contact Information

**Professor:** Dr. Leigh Zeitz

**E-mail address:** zeitz@uni.edu

**Office Location:** SEC 411 (inside SEC 405)

**Office Hours:** Tuesdays 1:00 - 5:00 pm

**Telephone:** (319) 273-3249  
 (319) 273-5886 (fax)  
 (319) 404-2588 (cell)

**Extra Hours:** You can also contact me through email and I will try to respond within 48 hours. If necessary, individual meetings can be scheduled through telephone, voicemail or email. Students may meet with me face-to-face, over the telephone, through instant messaging or using a chat system.

**Instant Messenger:** AOL: UNIDrZ

### Mission Statement of Educational Technology

The mission of Instructional Technology is to prepare professionals who demonstrate capable performance and insightful leadership, and to provide advanced study and professional growth opportunities for practicing professionals.

Based upon research and emerging technologies, the Division of Instructional Technology is committed to:

- Advancing the study of effective learning techniques
- Designing instruction that integrates appropriate application of technology
- Advancing message development knowledge and skills
- Advocating effective integration of technology to support learning

### Educating for Reflective Practice

### University Catalog Course Description

Designed to introduce students to using databases and informational retrieval systems in an educational setting. Emphasis on the students learning the basic concept and skills of databasing and experiencing the ways that databases can be used in a teaching method to emphasize problem-solving. Exploration beyond personal computer databases to using and integrating Internet resources into classroom curriculum. Prerequisites: 240:020 or 240:031; junior standing.

## Rationale/Purpose of the Course

- Place in the program:** This course is designed for the undergraduate or graduate student who is interested in learning about using databases to enhance students' critical thinking skills.
- Meaning to student:** The student will learn to manipulate, modify and create databases and how to integrate them into educational settings through both instructional and administrative applications.

## Major Learning Outcomes/Objectives or Course Goals

- Design:**
- 1.1 *Instructional Systems Design*
    - 1.1.1 *Analyzing*
      - 1.1.1.a Utilize and implement design principles which specify optimal conditions for learning.
      - 1.1.3 *Developing*
        - 1.1.3.b Demonstrate personal skill development with at least one: computer authoring application, video tool, or electronic communication application.
- Development:**
- 2.0.1 Select appropriate media to produce effective learning environments using technology resources
  - 2.0.5 Apply appropriate evaluation strategies and techniques for assessing effectiveness of instructional and professional products.
  - 2.0.6 Use the results of evaluation methods and techniques to revise and update instructional and professional products.
  - 2.2 *Audiovisual Technologies*
    - 2.2.4 Use a variety of projection devices with appropriate technology tools to facilitate presentations and instruction.
  - 2.3 *Computer-Based Technologies*
    - 2.3.2 Design, produce, and use digital information with computer-based technologies.
  - 2.4 *Integrated Technologies*
    - 2.4.4 Use telecommunications tools such as electronic mail and browsing tools for the World Wide Web to develop instructional and professional products.
    - 2.4.5 Develop effective Web pages with appropriate links using various technological tools (e.g., print technologies, imaging technologies, and video).
- Utilization:**
- 3.1 *Media Utilization*
    - 3.1.1 Identify key factors in selecting and using technologies appropriate for learning situations specified in the instructional design process.
  - 3.2 *Diffusion of Innovations*
    - 3.2.1 Identify strategies for the diffusion, adoption, and dissemination of innovations in learning communities.
  - 3.4 *Policies and Regulations*
    - 3.4.1 Identify and apply standards for the use of instructional technology.
    - 3.4.2 Identify and apply policies which incorporate professional ethics within practice.
    - 3.4.3 Identify and apply copyright and fair use guidelines within practice.
- Evaluation:**
- 5.1.1 Identify and apply problem analysis skills in appropriate ECIT contexts (e.g., conduct needs assessments, identify and define problems, identify constraints, identify resources, define learner characteristics, define goals and objectives in instructional systems design, media development and utilization, program management, and evaluation).
  - 5.3.1 Develop and apply formative and summative evaluation strategies in a variety of ECIT contexts.

## Course Requirements:

**Assumptions:**

- Skill with using a web browser and navigating the Web.
- Skill with using e-mail programs.
- Basic knowledge in educational uses of computers.
- Access to *Microsoft Access 2003* software

**Expectations:**

- Attend all of the course classes.
- Complete all of the reading.
- Complete all assignments to the best of her/his ability
- Submit assignments ON TIME.
- Participate in class through discussion.
- Participate asynchronously through email and forum discussions.
- Work with other students informally (through face-to-face or some sort of telecommunications system) as well as in formal assignments.
- Contact Dr. Z if any questions arise about what is expected or about how to use technology that is necessary to complete assignments.

**Required Materials**

- Friedrichsen, L. (2005) *Microsoft Office: Access 2003 (Illustrated Series - Complete)* CourseCard Edition. Publisher: Thomson. ISBN: 1-4188-4299-0
- Bernhardt, V. (2005) *Using Data to Improve Student Learning in High Schools*. Publisher: Eye on Education. ISBN: 1-596-67004-5
- Readings that can be downloaded from the Web.
- Access to *Microsoft Access 2003* (Available for \$69 through UNI.) <http://www.uni.edu/its/us/faqs/buymsoffice.htm>

**Course Outline/Schedule**

Week	Date	Access 2003 Chapter	Access Activities Due	<i>Using Data to Improve Student Learning</i>	Readings Due
1	8/24	Getting Started with Access 2003	space	space	space
2	8/31	Using Tables and Queries	<a href="#">Chapter A Intro Paragraph</a>	space	space
3	9/7	Using Forms	<a href="#">Chapter B</a>	space	1 <a href="#">article analysis</a>
4	9/14	Using Reports	<a href="#">Chapter C</a>	space	2 <a href="#">article analyses</a>
5	9/21	Database Applications	<a href="#">Chapter D</a>	space	2 <a href="#">article analyses</a>
6	9/28	Modifying the Database Structure	<a href="#">Personal DB</a>	Using Data – Ch. 2	space
7	10/5	Creating Multiple Tables/ Midterm Review	<a href="#">Chapter E</a>	space	sp2 <a href="#">article analyses</a>
8	10/12	<b>Midterm</b>			
9	10/17	Developing Forms and Subforms	<a href="#">Chapter F</a>	Using Data – Ch. 3	
10	10/26	Designing Original Databases	<a href="#">Chapter G</a>	Using Data – Ch. 4	Readings

11	11/2	Sharing Information and Improving Reports/	<a href="#">Expanded Personal DB</a>	Using Data – Ch. 5	<a href="#">Readings</a>
12	11/9	space	<a href="#">Chapter H</a>	Using Data – Ch. 6	Readings
13	11/16	space	Developed DB	Using Data – Ch. 7	Readings
14	11/23	<b>Thanksgiving</b>			
15	11/30	space	space	Using Data – Ch. 8	Readings
16	12/7	space	space	Using Data – Ch. 9 Final Exam Review	space
17	12/14	<b>Final Exam</b>			

## Course Assessment

**Assignment Submission:** Student work will be evaluated based upon the assignments submitted. This course will involve both individual and group assignments. Rubrics will be used to provide students with an understanding of teacher expectations for each assignment. It is the student's responsibility to refer to the rubric as well as the assignment explanation to best understand teacher expectations. While Dr. Z does his best to make the rubrics and assignment descriptions understandable, sometimes the words don't convey the intended information and a misunderstanding may occur. Please contact Dr. Z about any questions you may have.

**Late Assignments:** Late assignments will lose 3% of the final grade for each day late (weekends included).

**Submitting Late Assignments:** Electronic materials will be submitted to the appropriate folders on the course server. You MUST also send an email to Dr. Z to inform him of your submission. Late printed assignments must be given to Dr. Z directly or deposited in his mailbox in SEC 618. If you submit your work to the SEC 618 mailbox, have a secretary validate the submission date so you will not lose more points than necessary.

**Resubmitting Assignments:** Each assignment is intended to help a student develop knowledge/skills/dispositions that will assist the student in achieving the stated goals and objectives for the class. Therefore, it is to the student's advantage to complete each assignment to the best of his or her ability. To this end, students will be allowed to redo and resubmit their MAJOR assignments (identified with an \* in the Assignment list) after they have been graded. Resubmission will enable the student to earn half as many points as earned due to the reworking of the assignments (e.g., A student received 60 out of 100 points after the first submission of an assignment. Based upon the feedback given by Dr. Z, the student may rework the assignment and earn an additional 30 points from the changes. The student's final grade for the assignment would be 60 + 15 (half of additional 30 points earned) for a total of 75 points.)

**Resubmitted Assignments must:** (Failure to fulfill ANY of these requirements disqualifies the resubmission.

- Be submitted within 8 days of the day the assignment was returned to the student.
- Include the earlier assignment.
- Include the points sheet from the earlier assignment.
- Contain all materials in a large envelope
- Be labeled with Name, Class, Date and RESUBMIT on the outside of the notebook/envelope

**Final Grades:** Final grades will be assigned using the grading table listed in the Assignments table and posted on WebCT.

**Attendance:** Students are expected to attend ALL classes. Attendance will be taken every class. 2 points will be deducted for every absence (regardless of excuse).

## Assignments

Assignment	Description	Points Possible	Due Date
<a href="#">Intro Paragraph</a>	Post an introduction of yourself in the Forum section of WebCT.	10	8/31
<a href="#">Article Analysis</a>	You will read, review and prepare to lead the class in a discussion about one of the selected articles. This discussion will begin in a discussion group on WebCT and then continue in class in a face-to-face manner.	30	9/14, 9/21, or 10/5
<a href="#">Access 2003 Unit Activities</a>	Complete the defined parts of each activity. They will not always be the same pieces of the unit. It depends upon what Dr. Z deems to be important.	160 (20 each)	8/31, 9/7, 9/14, 9/22, 10/5, 10/19, 10/26, & 11/9
<a href="#">Personal Database</a>	Create a database to help organize something in your life. This database will be a flat database with only a single table of information. This assignment will provide the foundation for the Personal Relational Database where you will expand this database to using multiple tables of information so you will want to select a topic that can be expanded to that level.	50	9/28
<a href="#">Expanded Personal Database</a>	This activity builds upon your Personal Database assignment. You will be expected to expand your database to use multiple tables of information.	50	11/2
<b>Midterm</b>	Display your mastery of the information so far.	80	10/12
<b>Final Project</b>	Our Database class has been asked to create a database for analyzing student information. This database will be used in another course. The work will be done as a group but students will be evaluated on both personal and group work.	100	12/14
<b>Class Attendance</b>	Students are expected to attend ALL classes and participate in ALL on-line functions. Attendance will be taken every week. 2 points will be deducted for each unexcused absence.	20	
<b>Class Participation</b>	Coming to class is not enough. You will be graded for your participation in class and on-line.	20	
	<b>Total</b>	520	

Grade	Min	Min %	Grade	Min	Min %
<b>A</b>	499	96%	<b>C</b>	406	78%
<b>A-</b>	484	93%	<b>C-</b>	390	75%
<b>B+</b>	468	90%	<b>D+</b>	374	72%
<b>B</b>	452	87%	<b>D</b>	359	69%
<b>B-</b>	437	84%	<b>D-</b>	343	66%

C+	421	81%	F		
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## University's Equal Opportunity Statement

The University of Northern Iowa is an Affirmative Action Equal Opportunity Institution. The Americans with Disabilities Act of 1990 (ADA) provides protection from illegal discrimination for qualified individuals with disabilities. Students requesting instructional accommodations due to disabilities must arrange for such accommodations through the [Office of Disability Services \(ODS\)](#). The ODS is located at 213 Student Services Center, and the telephone number is 273-2676.

## University's Plagiarism Policy

All students should refer to UNI's Academic Ethics Policies on p. 62 in the [2004-2006 Programs and Courses Catalog](#) (<http://www.uni.edu/pubrel/catalog/acadreg.shtml>) or visit the [UNI Academic Ethics](#) web site (<http://www.uni.edu/pres/policies/301.shtml>). A student who is found using scholarly work improperly will be penalized.

Students may be asked to submit assignments through plagiarism-filtering software.

