



UNIVERSITY OF DENVER—COLORADO WOMEN'S COLLEGE

COURSE NUMBER: ITS 3421

COURSE TITLE: Database Organization and Management/Database Systems Management

Fall/2013: Wednesday 6 PM-9 PM

Class Session Dates: Sept. 10, 17, 24, Oct. 1, 8, 15, 22, 29, Nov. 5, 12

INSTRUCTOR'S NAME: Catherine (Cathie) Wilson

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I will respond to email or voicemail messages within 48 hours.

PREREQUISITES: ITS 1670

Students are responsible for completing course prerequisites before registering for a class. Students may be removed from a course for which they have not fulfilled the prerequisite course work.

COURSE DESCRIPTION:

This course will introduce the student to the fundamentals of database management systems. Specifically, the focus will be on database theory, appropriate database design, modeling tools, and the practical issues of implementation and management. This course consists of three primary components: (1) database theory, (2) database design tools and techniques (ERD's and Normalization), and (3) applying database concepts (Access 2010). Designing and developing databases is an iterative process, and the class delivery will be practical and hands-on.

STUDENT LEARNING OUTCOMES:

At the completion of this course, students will be able to:

- Explain the role of applying the database life cycle (DBLC) in creating successful database systems.
- Demonstrate how to translate business rules into an entity relationship diagram (ERD).
- Describe the components of an entity relationship model including entities, relationships, dependencies, and cardinality using standard notations.
- Translate entity relationship diagrams (ERDs) into physical data model diagrams.
- Describe the use the normalization process in designing a non-redundant logical data model.
- Develop a simple database using Access 2010 with tables, queries, forms, and reports.

ACADEMIC INTEGRITY:

Colorado Women's College fully endorses the University of Denver's Honor Code and the procedures put forth by the Office of Citizenship and Community Standards. Academic dishonesty—including plagiarism, cheating, and falsification of data and research—is in violation of the code and will result in a failing grade for the assignment or for the course.

As student members of a community committed to academic integrity and honesty, it is your responsibility to become familiar with the DU Honor Code and its procedures

(www.du.edu/honorcode).

COURSE TEXTS AND MATERIALS: *(Note: In this section you may also include E-Reserve information and access links)*

1. **REQUIRED:** Rob and Coronel, Database Systems: Design, Implementation & Management, Course Technology, 10th edition (referred to as DBS in the course schedule).
2. **RECOMMENDED:** Matthew MacDonald, Access 2007: The Missing Manual (referred to as LAB in the course schedule). Or any other adequate Access manual either in print or online.

COURSE REQUIREMENTS:

Grading and Student Evaluation

Success in this course will be related to the student's ability to demonstrate achievement of each of the course objectives listed above. The student is reminded that the quality of input (effort) will determine the quality of output (ability). Grades are based not only on demonstrated effort but also on demonstrated ability, mastery of the material, and quality of work produced.

The grade calculation will be based on the following course components and weights:

Component	Weight
Midterm Exam	25%
Course Project	40%
Homework	20%
Class Participation	15%

Midterm Exam: The exam will cover the readings and lectures up to the exam date. It will be closed book. Portions of the exam may require hands-on software application.

Course Project: A course project involving the application of the concepts and tools learned in this class will be assigned. Specific deliverable details will be provided by your instructor. Each student will give a short presentation of his/her course project during the time scheduled for the final exam. The presentation is open to questions from the instructor and fellow classmates.

Homework: A number of homework assignments will be completed during this course. All assignments and due dates are noted in the Course Schedule below.

Class Participation: Class attendance is very important; even more so is active participation in the learning process to the extent that it accounts for 15 percent of the overall grade. Throughout the quarter, class performance will be evaluated on several dimensions:

1. Actively engaged in the learning process
2. Quality participation in the discussion process
3. In-class break out projects/labs

Percentage	Grade
95-100	A
90-94	A-
87-89	B+
84-86	B
80-83	B-
77-79	C+
74-76	C
70-73	C-
67-69	D+
64-66	D
60-63	D-
0-59	F

ATTENDANCE AND PARTICIPATION

Attendance is mandatory in all class sessions. Active participation in class and online discussions is also required and will be a determiner in a student's final grade. An absence, for any reason, will result in forfeiting points for in-class student presentations. These may not be made up in another class session. If an emergency arises, it is the student's responsibility to contact her instructor.

A grade of incomplete will not be granted under any circumstances.

<http://www.du.edu/registrar/records/incompletepolicy.html>

TECHNOLOGY USE IN THE CLASSROOM

In order to create and maintain an optimal learning environment in the classroom, students should use technology appropriately as directed by the instructor for the purposes of the course. Work done on laptops, cell phones, and other devices that is not relevant to the class can hinder the process of communication and shared discussion of ideas that require full engagement by all participants.

ADA ACCOMMODATIONS

Students who require accommodations under the Americans with Disabilities Act must contact the instructor to discuss their needs. Failure to notify the instructor immediately may hinder the college's ability to accommodate accordingly. Students with learning disabilities should also contact the University Disability Services Program at <http://www.du.edu/studentlife/disability/>. University Disability Services houses the Learning Effectiveness Program (LEP) and the Disability Services Program (DSP).

OBSERVATION OF RELIGIOUS HOLIDAYS

Students wishing to observe a religious holiday not celebrated on the academic calendar may do so provided advanced written notice is given the instructor during the first two weeks of the quarter. With advanced written notice, the absence will be considered an excused absence. For additional information, contact DU's Center for Religious Services (<http://www.du.edu/crs/>).

DIVERSITY, INCLUSIVENESS, RESPECT

CWC is committed to fostering a diverse learning community that is inclusive and respectful. We encourage and appreciate expressions of different ideas, opinions, and beliefs, so that conversations and interactions that could be potentially divisive instead turn into opportunities for intellectual and personal growth. Respecting what others say, their right to say it, and listening to each other are the ways that we all can further thoughtful and enlightening dialogue.

COURSE SCHEDULE:

Session	Topic	Assignment
1	DBS Chapter 1: Database Systems DBS Chapter 2: Data Models	DUE: Sept. 14 Selected problems from DBS Chapter 2
2	DBS Chapter 3: The Relational Database Model	DUE: Sept. 21 Selected problems from DBS Chapter 3 PROJECT IDEA
3	DBS Chapter 4: Entity Relationship (ER) Modeling	DUE: Sept. 28 Selected problems from DBS Chapter 4 PROJECT PHASE I: The Database Initial Study
4	Lab work with Access	
5	DBS Chapter 5: Normalization of Database Tables	DUE: Oct. 12 Selected problems from DBS Chapter 5 PROJECT PHASE II: Database Design
6	Lab work with Access Midterm Exam Review	REVIEW for EXAM: DBS Chapters 1-5 and Lecture Material
7	MIDTERM EXAM	EXAM: DBS Chapters 1-5 and Lecture Material
8	DBS Chapter 9: Database Design	PROJECT PHASE III: Physical Design, Implementation, and Loading
9	DBS Chapter 10: Transaction Management and Concurrency Control	PROJECT PHASE IV: Operational
10	COURSE PROJECT PRESENTATIONS	10 minute oral presentation given by each student