

# CIS 250

## Database Theory and Design

**Instructor:** Eva Smith

**Quarter:** Fall 2009

**Phone:** (425) 640-1171 or (425) 296-2982

**Course:** CIS 250, Section A

**E-mail:** [esmith@edcc.edu](mailto:esmith@edcc.edu)

**Location:** MLT 210

**Office Location:** Alderwood Hall, **ALD 234-A**. Please contact me for meetings by appointment.

**Meeting Time:** Saturdays, 9:00 am to 12:00 noon.

**Office Hours:** My published office hours during Fall Quarter will be held in the **SNH 124** lab. Hours are:

**Credits:** 5

*Tuesdays, 4:00 – 5:30 pm*

*Wednesdays, 4:00 – 6:00 pm*

*Saturdays, 3:30 – 4:15 pm (immediately after class)*

### COURSE DESCRIPTION

This course was designed to recognize data as a business resource. Database models are discussed from both a programmer's and a user's viewpoint. Roles of database designer and administrator will be examined. **Prerequisite:** 20 credits toward a CIS degree or certificate or CIS 116, with a grade of at least 2.5. or equivalent experience.

### COURSE OBJECTIVES

Course objectives are based on nationally recognized industry skill standards as published by the NWCET (Northwest Center for Emerging Technologies). Upon successful completion of this course, students should be able to:

- ❖ Describe fundamental principals of database theory and design
- ❖ Research and analyze business data requirements
- ❖ Identify and document high-level business rules for data modeling
- ❖ Create and refine conceptual and logical data models
- ❖ Validate conceptual and logical data models
- ❖ Select unique identifiers and normalize the data model
- ❖ Understand the role of SQL in the business and database contexts
- ❖ Recognize the basic components and issues of database application design

### REQUIRED TEXTBOOKS

1) ***Database Concepts, 4th Edition*** by David M. Kroenke. Prentice Hall, Copyright © 2010, ISBN:9780136086536

2) ***Database Design for Mere Mortals, 2<sup>nd</sup> Edition*** by Michael J. Hernandez. Addison-Wesley, Copyright © 2003, ISBN 0-201-75284-0

### RECOMMENDED SUPPLIES

- ❖ Microsoft Visio (can be obtained from Misty Cline, CIS Program Assistant)
  - **EMAIL [mcline@edcc.edu](mailto:mcline@edcc.edu) with a copy of your schedule to get into the MSDNAA system**

## COURSE DELIVERABLES

Course deliverables are intended to:

- 1) provide hands-on practice
- 2) encourage you to seek related knowledge on your own
- 3) assess your understanding of the concepts covered in this course.

The following are some ground-rules regarding deliverables:

- ❖ **Deliverables** will be submitted on Blackboard and will be due at the beginning of the class period unless otherwise specified.
- ❖ **Late Deliverables:** Deliverables received after the due date will be accepted only at the discretion of the instructor, and up to **50% may be deducted** from the total assigned points for late deliverables. Also, I cannot guarantee that you will receive instructor comments or feedback on any deliverable received late.
- ❖ **Discussion Questions:** Since this is a "hybrid" class, there are weekly online activities as well as our class meetings. Weekly discussion questions based on the readings in the "Mortals" book are posted in Blackboard's Discussion Board, and are a required part of your overall grade. You will be expected to make your initial **1** reply posting to the weekly discussion forum subject for **.5 point**, and then quote (respond to) *at least 1* posting made by your fellow classmates for an additional **.5 point**. Discussion participation is a **total of 10% of your grade**.
- ❖ **Practice quizzes:** the 5 chapter review practice quizzes can be taken multiple times in order to practice for the exams. **These practice quizzes will be available up to the dates of the exam.** Once each exam is completed, the practice quizzes for that exam will no longer be available and you will forfeit those possible points.
- ❖ **Exams:** There will be two *on-line* exams during the quarter. **These exams will be about an hour, timed, and you will have up to 5 days to take the exam online. NO MAKE-UP EXAMS WILL BE GIVEN!**
- ❖ **Term Project:** due on **Saturday, December 5<sup>th</sup>** (Last Day of Class). **LATE PROJECTS WILL NOT BE ACCEPTED.**
- ❖ **Team activities** (if applicable): all participants receive the same grade.

## ASSIGNMENTS AND GRADING

Grading will be weighted based on the assignment categories below. Your final grade is calculated by dividing your total points *earned* by the total *possible* points for each category to get your *percentage earned* by category. The result is multiplied by the weight for that category to get a *weighted score* for the category. These are added to total up to 100%. Your *total percentage earned* (total of weighted scores for all categories) will equate to a grade on the grading table that follows.

Number	Description	Weight % of Grade
10	Discussion Questions	10%
5	Lab Assignments	10%
5	Practice Quizzes	10%
2	Exams	20%
3	Term Project Drafts	5%
2	Term Project Peer Walk-throughs	20%
1	Final Term Project Deliverable	20%
1	Attendance and Participation (Instructor Discretionary Points)	5%
	<b>Total</b>	<b>100%</b>

## GRADING TABLES

Grade Points for Percentage of Points earned			Letter Grade Equivalency
4.0=95%	2.9=84%	1.8=73%	A = 4.0 - 3.9
3.9=94%	2.8=83%	1.7=72%	A- = 3.8 - 3.5
3.8=93%	2.7=82%	1.6=71%	B+ = 3.4 - 3.2
3.7=92%	2.6=81%	1.5=70%	B = 3.1 - 2.9
3.6=91%	2.5=80%	1.4=69%	B- = 2.8 - 2.5
3.5=90%	2.4=79%	1.4=68%	C+ = 2.4 - 2.2
3.4=89%	2.3=78%	1.4=67%	C = 2.1 - 1.9
3.3=88%	2.2=77%	1.3=66%	C- = 1.8 - 1.5
3.2=87%	2.1=76%	1.2=65%	D+ = 1.4 - 1.2
3.1=86%	2.0=75%	1.1=64%	D = 1.1 - 0.9
3.0=85%	1.9=74%	1.0=63%	D- = 0.8 - 0.7

### ***Instructor's Discretion:***

I reserve the right to change deliverables and breakdown of percentages listed above, and will notify the class accordingly. **Extra credit** may or may not be offered – I reserve the right to decide on the meritocracy of extra credit on a class-by-class basis.

### **A SPECIAL NOTE ABOUT GRADING:**

My grading philosophy may be slightly different than you have encountered in other courses. I am assessing the quality of your work (from an employer's point of view), not just your effort or ability to complete the work. The following describes my expectations for each grade, and how you will be evaluated:

**4.0** = Exemplary (Above and beyond). A 4.0 indicates that a student consistently produced exemplary work of perfect or near-perfect quality on all deliverables, attended class sessions and was an active participant in class activities. The student not only demonstrated understanding of material, but also stretched his or her learning experiences beyond what was covered in class, either by doing research or helping other students. I would be proud to show off this student's work to other instructors or employers or write a recommendation letter on the student's behalf.

**3.5 – 3.9** = Excellent. (This is still an "A" grade!) Most deliverables were perfect or near perfect, but perhaps could have been a little more polished to be exemplary. May have missed some points due to late deliverables, a low exam score, attendance, etc. It demonstrates high quality work and a strong understanding of the material presented during the quarter.

**3.0 – 3.4** = Good. (Strong "B" grade.) Most deliverables were very good, but the quality was not consistent, or needed more attention to quality and detail to be excellent. Met all of the objectives of the class, and demonstrated a solid understanding of the material. May have missed some points due to late deliverables, missing or low quiz scores, attendance, etc.

**2.0 – 2.9** = Average. Met all of the objectives of the class, but no more. Demonstrated understanding of most of the material, but may have missed some important concepts. Missed a fair number of points due to lack of participation in team activities, late or missing deliverables, etc., or the student's deliverables did not demonstrate evidence of a solid understanding of the course material.

**Below 2.0** = Below Average Work. Did not meet expectations or objectives of the class. Did not demonstrate understanding of the material or missed a significant amount of points due to lack of participation in team activities, late deliverables, missing or low quiz scores, attendance, etc.

**NOTE:** I do not consider "I" (Incomplete) or "V" (Instructor Withdrawal) grades acceptable, and will consider granting them only under extraordinarily unique and extenuating circumstances.

## **BASIC EDUCATION REQUIREMENTS (COLLEGE WIDE ABILITIES)**

This class supports the College-wide standards and general education requirements. While achieving the course objectives above, you will be applying and developing the following basic competencies:

- ❖ Written and oral communications (through writing deliverables).
- ❖ Critical thinking and problem solving (through methods used to create individual projects).
- ❖ Group interaction (by helping each other get through projects).
- ❖ Quantitative Skills (through problem solving using mathematical notation, graphs, charts, tables, and symbols)

## **ATTENDANCE POLICIES**

Students are expected to attend each class meeting. Up to 5% of your final grade may be based upon attendance and participation in class (or online). I believe that attendance is vital to your success in this class. It has been proven that students who attend every class session better position themselves to not only comprehend and master the course material, but also receive a higher overall course grade.

## **ACCESS TO COURSE MATERIALS**

Successful completion of student responsibilities in this class requires access to BlackBoard via an Internet browser. You are expected to login to the BlackBoard classroom *at least* 3 to 4 times per week. Instructions for access to Blackboard may be located online at the following address: [http://online.edcc.edu/study/Bb\\_login.html](http://online.edcc.edu/study/Bb_login.html). Toll-free technical support (24/7 service) is available at <http://blackboard.edcc.edu> (click on the HELP button).

A Blackboard classroom will be set up on the Web for this class and will be a central repository of the course assignments and discussions, as well as material you will need during the course. You are responsible for checking this site regularly for announcements and other information. More information and instructions for setting up and accessing your Blackboard account will be provided during the first week of class.

## **CLASSROOM CONDUCT IN THE LABS**

Classrooms are shared environments where each individual pays dearly to hear all of the information presented. A few courtesies are required for everyone to have a quality experience.

- ❖ PLEASE TURN CELL PHONES and PAGERS *OFF* while in the classroom.
- ❖ Please be on time. I will make every effort to start class on time and don't believe students who make the effort to be on time should be penalized.
- ❖ Please avoid side discussions with your neighbors unless instructed to do so, as they are highly distracting for others around you.
- ❖ *If you surf the web during class, PLEASE MAKE IT RELEVANT TO THE TOPICS BEING PRESENTED!* I won't prohibit this, but if the computers become too big a distraction, I may ask that you turn them completely off until needed.



## EXPECTATIONS

This course involves a high level of independent problem solving and analytical thinking. You can expect to spend at least 6 to 9 hours per week outside of class to complete reading and other activities. Class time will be spent in team activities, hands-on practice and discussion.

I expect you will:

- ❖ assume an **active role** in your own learning process
- ❖ take **responsibility** for understanding what each deliverable entails
- ❖ complete reading/discussion/assignment deliverables **on time** and be prepared for in-class discussion
- ❖ share information freely with others and **actively participate** in team projects
- ❖ not distract others (*see the Classroom Conduct section above*) –
  - **\*\*\*NOTE:** I reserve the right to DEDUCT class participation points during the quarter for activities or behaviors that detract from a productive classroom environment.
- ❖ deliver **high quality work** that is correctly spelled, neat, and readable
- ❖ **independently learn** necessary tools and seek out relevant resources

My role is to be your guide through this material, and therefore you can expect that I will do my best to:

- ❖ plan relevant "real-world" **learning activities** to meet course objectives
- ❖ clearly **define expectations** and deliverables
- ❖ adjust the **pace and schedule** as needed to assure understanding and meet objectives
- ❖ **explain difficult concepts** in a manner that allows you to understand them
- ❖ give you **meaningful feedback** to help with your learning process
- ❖ assign grades in a **fair and consistent** manner

## POLICY ON CHEATING

Discussing the course topics with your classmates is encouraged. Helping your classmates solve problems is also encouraged. However, all quizzes, exams, and individual lab and project work turned in for a grade must be done independently unless otherwise specified for the assignment. No points will be awarded for individual deliverables found to contain work directly copied from others without attribution.

**\*\*\*Plagiarism and/or cheating are totally unacceptable and will be dealt with severely and on an individual basis.\*\*\***

## SPECIAL ACCOMMODATIONS

If you require an accommodation for a disability, please contact Services for Students with Disabilities, MLT 159, (425) 640-1320, [ssdmail@edcc.edu](mailto:ssdmail@edcc.edu)

## EMERGENCY CLOSURE:

Because this is a weekend class, it's important that you check Blackboard Announcements each week before coming to class on Saturday morning. Whenever possible, emergency class cancellations will be posted by 7:30 am. In case of inclement weather, please access the following web site for information:

<http://www.schoolreport.org/> and or call this phone number: 425-640-1459.