CIS 140 Syllabus

Cuyamaca College CIS Department   CIS 140C Databases

Fall 2013   Section 1172   Wednesday. 6:00 pm – 8:50 pm

3 Units Rm. E-206

Instructor: Curtis Sharon   Office Hours: By Appointment

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Course Description: 16 weeks. This course is a beginning course in database software. Students will create, update and retrieve information using a computer, providing students with a solid background in database applications and operation. Beneficial for those individuals who wish to use the computer to file, organize, retrieve, and create reports from data. This course will use Microsoft ACCESS 2010 database software.

Prerequisites: No prerequisites or co-requisites required.

Course Objective: This course is intended for the students that want to learn the principles of database development and management. Students will learn how to design, plan, and implement a database using "real world" examples. By the end of this course, students will be able to analyze data relationships, develop a relational database for this data, and build an appropriate database using ACCESS. Students will acquire the skills necessary to maintain and modify as necessary databases in order to adapt to changing information requirements. Upon successful completion, students will be prepared to continue onto CIS 240 – Advanced Databases.

Course Materials: The text, assignments, exams, supplemental materials, and example databases are available on-line through Blackboard at http://bb.gcccd.net/

Assignments: Course work consists of in class and online discussion participation, homework, reading, laboratory exercises, and a final project. The computer laboratory in the H building as well as the in the LRC are available outside of class. Consult the Class Schedule for hours of operation.

Attendance: This class moves rapidly, and as a consequence staying concurrent with the class progress is very important. It is the responsibility of the student to complete all requirements for dropping the class. I will <u>not</u> necessarily drop you if choose to stop attending class. At the same time I do reserve the right to drop students for excessive absences.

Text Books: *ACCESS 2010.pdf -* BlackBoard – Course Documents [**Required**]**.**

*The **ACCESS 2010 Bible**,* Groh, et al, Wiley Publishers ISBN 978-0-470-47534-8
[**Recommended**]. Please be sure to read the assigned chapters before
class. Students who read the material prior to lecture will find the material
much easier to master than those students who do not prepare for class.

Grading Policies: Grades will be based on approximately 1,000 possible points.
Cuyamaca College requires a minimum of 70% to pass a course. Please notice
that the Semester project accounts for 35% of your grade. I believe in
performance-based assessment. I'm not nearly as interested in your ability to
recite facts at will, but how well you can think and solve problems in database
applications.

Class participation: (5% of final grade) No one exists in a vacuum. I am
a firm believer that active participation in the classroom (physical
or online) enhances learning. One of the best ways to master a
subject is to try and teach it to someone else. As a consequence,
there will be opportunities to become actively involved in class
discussion and exercises.

Assignments: (30% of final grade) The assignments are intended to
reinforce principles that were discussed in class. As a result, they
are strictly related to material that was covered during the week.
They are due at the start of class on the last class of the following
week. Late assignments will receive half-credit up to 1 week.
Assignments can always be turned in ahead of time. Each student
is responsible for their own work – do not turn in identical
assignments if you work together.

Exams: (30% of final grade) Each exam is cumulative from the material
covered since the previous exam. Each exam is designed to allow
you the opportunity to demonstrate how well you have mastered
the principles involved, and are able to relate these principles to
other units covered. Exams will be made up of True/False,
Multiple Choice, and Fill in the blank, and Essay questions. The
Essay questions typically count for approximately 35% to 50% of
the exam score, so it is in your best interest to at least attempt to
answer each question.

Project: (35% of final grade) The objective of this course to learn the
principles of database design and construction. The best way to
assess your mastery of the subject is to develop a functional
database. To this end, a semester long project will be the basis for
the majority of the grade. Using any database that you did not
create is strictly forbidden, and will result in 0 points for the
project.. A recommended project management schedule is
illustrated below:

Phase 1 (By Week 3) Determine the database project you will
build during the semester. **Not Graded.**

Phase 2 (By Week 5) Database Normalization. Normalize the database for your project. You will need to determine tables, fields, primary keys and foreign keys, and relationships. Create the tables and relationships. **Graded.**

Phase 3 (By Week 8) Form and Report Layout. Determine at least three forms and three reports for your project, and create a graphical representation of the forms and reports (A simple drawing is useful). **Graded.**

Phase 4 (By Week 10) Form and Report Creation. Create the necessary forms and reports for your project. **Not Graded.**

Phase 5 (By Week 13) Automation and Navigation. Determine final navigation and automation requirements for your final project. **Not Graded.**

Final Project: A finished database project that is functional with data in place. Database Documentation will be required as well. You will also need to present your project to the class at the end of the semester. This project will utilize all of the principles learned over the course of the semester. Grading breakdown for the final project is as follows:

Attribute	*Weight*
Functionality	67 %
Documentation	16 %
Misc.	9 %
Presentation	8 %

Grading Rubric

Final Project Minimum Requirements
- *5 related Tables*
- *3 Queries used as data sources*
    - *1 query must include at least two tables*
    - *1 query must utilize user input criteria*
- *3 Forms*
    - *1 Form must include a subform*
- *3 Reports*
    - *1 Report must include sorting and grouping*
    - *1 Report must include summary information*
- *2 types of automation (either Macro's or VBA).*
- *An opening switchboard for user navigation*

CIS 140 Final Project Grading Rubric

The final project will be graded based on the following scale:

Functionality and Design– 67%

> How well does this database function (Forms can be used, Reports can be viewed, etc.)? How intuitive is the user interface (can anybody not familiar with Access use this database)? Is this an appropriate solution? Does the database fulfill all the requirements for the user? Is this an efficient and scalable database? Are the rules for database design followed correctly?

Documentation – 16%

> **Internal Documentation –**
> Are objects named correctly? Is a naming convention followed? Do fields in table design have comments where needed? Are Macros documented sufficiently? Does VBA code have comments to tell what the purpose of the code and variables are?
>
> **External Documentation –**
> Each database should be accompanied by an Executive Summary report that describes the following:
> 1. An overview of the problem that this database addresses
> 2. How this database addresses these needs
> 3. Special features that you are proud of within the database
> 4. Limitations of the database
> 5. Suggested improvements for the database
>
> This summary should be 2 – 4 pages in length

Miscellaneous -9%

> What touches are present that make the database easier to use? What controls are available that helps prevent the user from becoming lost or stuck? How much thought has been given to the user interfaces?

Presentation – 8%

> How clearly can you explain the reason for your database, and how your project satisfies this reason? How well can you demonstrate the usability and function of your database? ***Note: I am extremely liberal in my grading for this part!***

Assessment –

> 1. Greatly exceeds minimum requirements in scope and breadth of the final project. Student has incorporated techniques beyond those demonstrated in class. Student has taken responsibility to learn and apply advanced techniques on their own. All database design principals have been strictly adhered to, and incorporated into the design. – **A Grade**
> 2. Exceeds minimum requirements, and utilizes some advanced techniques. Good database design principles have been followed with few exceptions. All user interfaces work properly, and evidence of deliberate design for user ease has been shown. Database solution is adequate for the task, and can be expanded as necessary. – **B Grade**
> 3. Meets minimum requirements. Database functions, and can be used with a minimal understanding of Access. All user interfaces function properly, and data is handled correctly. Good database design principles were followed in creating the database. - **C Grade**

4. Majority of the minimum requirements were met. Tables were normalized, and data is input through use of forms. Some functionality exists, and data can be input and retrieved correctly. Database design principles followed in most cases – **D Grade**
5. Minimum functionality can not be demonstrated. Tables are not normalized. Limited use of forms for data entry or retrieval. Solution does not adequately address needs of problem. Database design principles were not followed. – **F Grade**

Grading Categories

Class Participation	50 points	5 % of Total Grade
7 Assignments @ 30 points each	210 points	21 % of Total Grade
3 tests @ 100 points each	300 points	30 % of Total Grade
2 Final project phases @ 45 points each	90 points	9% of Total Grade
Final project	350 points	35 % of Total Grade
Total	1,000 points	100% of Total Grade

Points	1,000 - 934	900 – 933	899 - 867	834 - 869	800 - 833	799 - 767	766 - 700	600 - 699	< 600
Grade	A	A-	B+	B	B-	C+	C	D	F

Late, Missed, and Make Up work: While I appreciate the fact an occasional unforeseen catastrophe may occur, it becomes very difficult to manage a class if the problem becomes chronic. I will accept homework assignments up to one week past due, but they will only receive half credit maximum. Since the tests are given on the specified date, it requires considerable effort to make them available for individuals outside of the scheduled time. If you know you are not going to be able to be able to take a quiz at the scheduled time, it is imperative that you contact me ahead of time. If you are absent during a quiz, you must contact me via: phone, voice mail, or e-mail on the date of your absence. Arrangements can be made for missed quizzes, but in general they will be more extensive than the quiz given at the scheduled time. In general, you will have one week to make up the exam, unless you have made prior arrangements with me.

Cheating: Cheating is not only an exercise in futility, but extremely disrespectful to me, other students, and the individual as well. Cheating will result in 0 points for the assignment. Multiple infractions will require additional administrative disciplinary action.

Course Schedule:
I will follow this schedule as closely as possible, but I reserve the right to make changes as necessary.

Week	Date	Reading	Topics to be Covered	Assignments	Assignments Due
1	9/21/13	Introduction & Chapter 1	**Preparing to Automate Data**	Assignment 1	
2	9/28/13				
3	9/4/13	Chapter 2	**Building the Database**	Assignment 2	Assignment 1 Determine Final project (not graded)
4	9/11/13				
5	9/18/13	Chapter 3	**Analyzing Data for Effective Decision Making**	Assignment 3	Assignment 2 **Normalize Final Project (Graded)**
6	9/25913				
7	10/2/13	Chapter 4	**Collecting Data with Well-Designed Forms** **EXAM 1 Chapters 1-3**	Assignment 4	Assignment 3
8	10/9/13				**Design Forms and Reports Layout (Graded)**
9	10/16/13	Chapter 5	**Developing Effective Reports**	Assignment 5	Assignment 4
10	10/23/13				Create Forms and Reports (not graded)
11	10/30/13	Chapter 6	**Automating Database Processing**	Assignment 6	Assignment 5
12	11/6/13		**Exam 2 Chapters 4 & 5**		Determine final navigation and automation requirements (not graded)
14	11/13/13	Chapter 7	**Enhancing User Interaction Through**	Assignment 7	Assignment 6

			Programming		
14	11/20/13		***Review and Final project preparation***		
15	12/4/13		***EXAM 3 Chapters 6& 7***		Assignment 7
16	12/11/13		***<u>Final Project Presentations</u>***		

This course adheres to the policies outlined in the Cuyamaca College catalogue. For further information, see Academic Policies stated in the catalogue.

Registration	July 15 - August 16
Payment Deadline for Registration Fees	August 8
Professional Development - Organizational Meetings	August 12 - 16
Regular Day & Evening Classes Begin	August 19
Program Adjustment	August 19 - August 30
Holiday (Labor Day)	September 2*
Census Day (Semester-Length Classes)	September 3
Last Day to Apply for P/NP Semester-Length Classes	September 20
Last Day to Apply for Fall 2013 Degree/Certificate	October 11
End of First 8-Week Session	October 12
Second 8-Week Session Begins	October 14
Last Day to Drop Semester-Length Classes	November 8
Holiday (Veterans' Day)	November 11*
Holiday (Thanksgiving)	November 28, 29, 30*
End of Second 8-Week Session	December 9
Final Examinations	December 10, 11, 12, 13, 14, 16
Close of Fall Semester	December 16
Instructor Grade Deadline	December 18