8 East 40th Street New York, NY 10016-0190 (212) 686-9040 (phone) (212) 686-9171 (fax)

COURSE SYLLABUS

COURSE / SECTION NUMBER: CA115 DATABASE CONCEPTS

SEMESTER: SUMMER SEMESTER – TERM I

DAY(S) / HOURS: M-F 2:00PM - 2:50PM

ROOM: 210

INSTRUCTOR: Professor M. Sidaras

Email: <u>professor@sidaras.org</u> (**Preferred**)
Email: <u>msidaras@woodtobecoburn.edu</u>

Office Phone: (212) 897-0160

OFFICE HOURS: ROOM 210

Tuesday & Thursday 10:50AM - 11:20AM

COURSE OUTLINE

COURSE NAME: DATABASE APPLICATIONS

<u>COURSE DESCRIPTION</u>: In this course students learn advanced theories of database design. Students will design, critique, optimize, and implement database solutions to business applications.

PREREQUISITE(S): CA114 DATABASE CONCEPTS

CREDITS: 2 Credits

HOURS: 20 Lecture / 20 Lab

INSTRUCTIONAL MATERIALS AND REFERENCES:

Required Text:

Adamski, Joseph J and Kathleen T. Finnegan. <u>New Perspectives on Microsoft Access</u> 2010 Comprehensive, 1st Edition. Course Technology, 2011. ISBN-13: 978-0538798471

Additional Requirements:

- A loose leaf binder or notebook to keep notes.
- Master Login for the CA115 Web Page on the Sidaras.org domain.
- FTP Login Account for Assignment Submissions
- A flash drive is suggested to keep your data files on, so you can take them with you between class and home.

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References:

Gaskin, Shelley and Nancy Graviett. <u>GO! With Microsoft Access 2010, Comprehensive</u>. Prentice Hall, 2013. ISBN-13: 978-0132743822

Friedrichsen, Lisa. <u>Illustrated Course Guide: Microsoft Access 2010 Advanced, 1st Edition</u>. Cengage Learning, 2012. ISBN-13: 978-0538748414

Pasewark and Pasewark, Sandra Cable and Jessica Evans. <u>Microsoft® Access 2010</u> Complete, 1st Edition. Cengage Learning, 2012. ISBN-13: 978-1111529901

Shelly, Gary B., Philip J. Pratt and Mary Z. Last. <u>Microsoft® Access 2010:</u> Comprehensive, 1st Edition. Cengage Learning, 2011. ISBN-13: 978-1439079027

DATA PROTECTION:

Make sure you save ALL your data frequently ON YOUR OWN FLASH DRIVE. You also should back up the entire contents of your flash drive to your home computer frequently (at least once a week). Any loss of data or failure of your computer is your own responsibility. Loss of data files is not an acceptable excuse for late assignments.

COURSE OBJECTIVES:

Upon completion of this course, the student will be able to:

- A. Build a user interface to interact with a database.
- B. Design and implement a database application.
- C. Enhance forms with Attachment and Lookup Fields, Hyperlinks and Subforms
- D. Create an application system using macros, wizards and a Navigation Form
- E. Integrate Access with other Microsoft applications
- F. Create a report using Design View
- G. Use normalization procedures in database design.
- H. Customize forms using Visual Basic for Applications (VBA), charts and PivotTable objects

COURSE POLICIES AND GUIDELINES

COURSE POLICIES: To successfully complete the course, students are expected to follow these classroom policies:

- A. Bring the textbook to every class session. The book may be needed to complete labs.
- B. Maintain regular attendance at all class sessions. If you are absent, it is your responsibility to complete all required lessons and assignments. It is also your responsibility to turn in work due on the date of the absence via email to the professor. Late work may only be accepted at the discretion of the instructor with an excused absence (court date with written proof, or doctors' note). No one is guaranteed acceptance of late work.

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- C. Complete your own work. Submission of someone else's work as your own will result in a 0 for that assignment and possible failure of the course.
- D. Demonstrate professional courtesy in speaking and behavior shown towards the instructor and classmates.
- E. All cell phones and electronic devices should be OFF during class.
- F. No Instant Messaging, Tweeting, Facebook Usage, Web Surfing, or anything of the sort in the classroom, whether on the school computers or your own devices.
- G. No eating or drinking allowed in class.
- H. You are required to be in dress code to every class session. If you are not, you will be asked to leave and see the Director of Education.

TEACHING STRATEGIES:

- A. Lecture
- **B.** Discussion.
- C. Hands-On Assignments

ATTENDANCE AND LATE ARRIVAL POLICY:

- **A.** All classes begin on the hour.
- **B.** Attendance will be taken at the beginning of each class (within first 5 minutes).
- **C.** Arrival after last name is called is LATE.
- **D.** Three late arrivals will equate to one absence and will be recorded as such in our school attendance records.
- E. Students who arrive 20 minutes or more late to class will be considered absent. Students are encouraged to enter the class at this time as long as they do not disrupt the class, so they can at least benefit from the lesson for the day.
- F. Regular class attendance is essential. Regular and punctual attendance is extremely important while in school and makes it considerably easier to satisfy employers who demand this behavior. Development of professional conduct at Wood Tobé-Coburn School is just as important as the development of skills.
- **G.** Absence from class, regardless of reason involves a loss to both the student and to other members of the class. Wood Tobé-Coburn School policy requires students to attend all classes. While it is recognized that certain reasons beyond the control of the student may make it impossible to attend class, excessive absenteeism may result in a lowered grade or other administrative action. An absence rate in excess of 10 percent of the classes scheduled may result in dismissal from school. A student who accumulates ten consecutive days of absence is considered to have withdrawn from school.
- H. Attendance is expected and is taken each day. If you will not be able to attend class, call in between 7:30am and 8:00am. Also call a classmate to obtain the homework assignments. You are responsible for the content covered during your absence; this includes all assignments, class work, and work due on the day of your absence.

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- I. Please do not ask to leave the class early. If you are late or leave class early, you will not earn credit for attending class that day. If you are late to class, wait until after class to tell me. It is your responsibility to inform me that you were in class and see that it is marked on my attendance sheet.
- **J.** Professional behavior is expected of all students. You are expected to abide by the Wood Tobé-Coburn School Academic Catalog and the student handbook for conduct, ethical behavior, and other rules/regulations.

ACADEMIC DISHONESTY POLICY:

Academic dishonesty includes, but is not limited to, using unauthorized aids to complete an exam or project, submitting another student's work, sharing data via the network or diskette/flash drive, and copying from another student with or without their permission.

The Director of Education will suspend students who are caught cheating from school for a minimum of 24 hours. In addition, the students will not receive any credit for the work in question or any other work missed during the period of suspension.

DRESS CODE POLICY:

Students are required to dress in appropriate professional attire. The Wood Tobé-Coburn School student is expected to maintain the same high standard of appearance and grooming that are expected by the business, design, and health care communities.

Students who are not in compliance with the dress code will be sent home. Faculty members may send students home from class or may elect to send them to the Director of Education to be sent home. Students will not be allowed to make up work missed during the period of suspension.

ASSIGNMENTS:

In order to achieve the course objectives, you will use the textbook and other reference sources to complete in-class and homework exercises. Completing all homework and in-class assignments will help you maximize your achievement on the tests and other writing assignments.

METHODS OF EVALUATION: Course grade is determined as follows*:

Attendance/Participation	10%	10 Points
Homework & Labs	50%	100 Points Each
Quizzes	10%	10 Points Each
Exams	30%	100 Points Each

^{*} Professor Reserves the Right to Eliminate/Recalculate Any Assessment.

GRADING SYSTEM: A = 95 < 100 A = 90 < 94 B = 87 < 89 B = 84 < 86 C = 76 < 79 C = 72 < 75 C = 68 < 71 D = 64 < 67 D = 60 < 63 F = 0 < 59

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All Assignment Submissions:

All homework and lab assignments must be uploaded to your Sidaras.org Domain FTP Account. No printed submissions.

Homework/Labs: You may be given various classroom theoretical labs and/or homework assignments/projects to be completed individually throughout the term. These assignments are to solidify your networking skills in preparation for the quizzes and exams. They do need to be handed in, and will be graded. The professor may float the room and inspect progress. Regular completion of classroom labs and homework also count toward classroom participation. Each missing assignment may result in 1 point deduction from participation.

Assignments have **DUE DATES** that need to be met for full credit. Any late assignment, if approved by the instructor, will be subject to a **5% PENALTY PER DAY against the grade of that assignment**, up to 10 days late. Thereafter, the assignment **will not be accepted.** You are responsible for checking the course website daily for new homework assignments, as I may post them at ANY time, whether or not discussed in class.

Attendance/Participation: EACH STUDENT STARTS WITH 10 POINTS FOR ATTENDANCE/PARTICIPATION ON DAY ONE! It's up to you to work hard to keep them. Your participation encompasses a lot of work. Labs, Reading Assignments, Homework Assignments, Classroom Discussions, Pop Quizzes, Attendance, Punctuality and Classroom Etiquette all fall under this part of your grade. Your participation is graded on completion, as well as attendance and punctuality. If you do ALL the work, including quizzes, respect the policies and classroom etiquette, and you are never absent or late, then you will keep the full 10 points. Miss any work and points may be deducted as discussed earlier. One Point may also be deducted for each absence, and ½ point for lateness. If you are more than 20 minutes late, a full point will be deducted as if you were absent. Make no mistake; participation heavily affects your grade! A loss of all participation points means you will likely NOT earn better than a "B+" in this class!

Quizzes: There will be 6 quizzes throughout the term. Quizzes will generally be every week, except on the week of the Midterm Exam and Final Exam. They may be given on different days during the week. They will be UNANNOUNCED QUIZZES, so you will not be told the specific day they will occur. Therefore, you must review the day's lesson from your notes every night. The total cumulative scores of all counted quizzes will make up 10% of your total course grade. The best 5 quizzes will count at equal weighting of 2%. Quizzes cannot be made up if you are absent, regardless of reason or note.

Midterm Exam: There WILL be a multi-chapter, cumulative written exam at the Midterm Point. This assessment will be graded on a 100% scale and will include T/F, M/C, and Fill-In questions. There will also be critical thinking questions in the form of essays. This will be worth 15% out of the total 30% for the Exams component of your grade. **The date of this exam will be Wednesday June 5**th, **2013.**

Final Exam: There WILL be a multi-chapter, cumulative written exam at the Final Point. This assessment will be graded on a 100% scale and will include T/F, M/C, and Fill-In questions. There will also be critical thinking questions in the form of essays. This will be worth 15% out of the total 30% for the Exams component of your grade. **The date of this exam will be Monday July 1**st, **2013.**

<u>TOPICAL OUTLINE</u>: This is a tentative Outline/Schedule. Some chapters may need more than one week. That will be determined as we progress through the semester.

Week 1 (05/06/2013 - 05/10/2013)

Tutorial 7: Creating Custom Reports

Student Learning Objectives:

- View, filter, and copy report information in Report view
- o Modify a report in Layout view
- o Modify a report in Design view
- Design and create a custom report
- Sort and group data in a report

- Add, move, resize, and align controls in a report
- o Add lines to a report
- o Hide duplicate values in a report
- Add the date, page numbers, and title to a report
- Create and modify mailing labels

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Week 2 (05/13/2013 - 05/17/2013)

Tutorial 7: Creating Custom Reports

Tutorial 8: Sharing, Integrating and Analyzing Data

Student Learning Objectives:

- Complete Tutorial 7
- Complete Review Assignments and Case Problems as assigned by instructor
- Start Tutorial 8

Week 3 (05/20/2013 - 05/24/2013)

Tutorial 8: Sharing, Integrating and Analyzing Data

Student Learning Objectives:

- Export an Access table to an HTML document
- o Import a CSV file as an Access table
- o Use the Table Analyzer
- o Import and export XML files
- $\circ \quad \text{Save and run import \& export specifications} \\$
- o Create a multi-page form using a tab control
- o Embed a chart in a form
- Create and modify PivotTables and PivotCharts
- Link data from an Excel worksheet

Summer Break Week (05/27/2013 - 05/31/2013)

No content to explore this week, as we will be on vacation.

Week 4 (06/03/2013 - 06/07/2013)

Tutorial 9: Using Action Queries and Advanced Table Relationships

Student Learning Objectives:

- Create action queries to create a table, append, delete, and update data
- Define many-to-many and one-to-one relationships between tables

- Learn about joining tables
- o Join a table using a self-join
- View and create indexes for tables
- o Midterm Exam on Wednesday 6/5/2013

Week 5 (06/10/2013 - 06/14/2013)

Tutorial 10: Automating Tasks with Macros

Student Learning Objectives:

- o Run and add actions to macros
- o Single step a macro
- o Create a submacro
- Add a command button to a form
- o Add a macro to a macro group
- Attach a macro to a command button

- o Create an unbound form
- o Add a list box to a form
- Use an SQL statement to fill a list box with object names
- o Create multiple macros for a form
- Create a Navigation Form

Week 6 (06/17/2013 - 06/21/2013)

Tutorial 11: Using and Writing Visual Basic for Applications Code

Student Learning Objectives:

- Learn about Function procedures (functions), Sub procedures (subroutines), and modules
- Review and modify an existing subroutine in an event procedure
- o Create a function in a standard module

- o Test a procedure in the Immediate window
- o Create event procedures
- Compile and test functions, subroutines, and event procedures
- Hide text and change display colors

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Week 7 (06/24/2013 - 06/28/2013)

Tutorial 12: Managing and Securing a Database

Student Learning Objectives:

- o Filter data in a table and a form
- Save a filter as a query and apply the saved query as a filter
- o Create a subquery
- o Create a multivalued field
- Create an Attachment field
- o Use an AutoNumber field
- Save a database as a previous version

- o Analyze a database's performance
- Link a database to a table in another database
- Use the Linked Table Manager
- Split a database
- Encrypt a database with a password
- Set database properties and startup options
- Create an ACCDE file

Week 8 (07/01/2013 - 07/03/2013) Note the week ends early due to Jul 4th Break!

End of Term

Student Learning Objectives:

o Final Exam on Monday 7/1/2013

o Extra Credit Assignments

EXTRA CREDIT

Extra Credit assignments will be given out the last two days of the term. You must be in attendance on those days to take advantage of the extra credit. No details will be released before then. No details will be released on the course website.