

## CGS 1545

### DATABASE TECHNIQUES & PROGRAMMING SYLLABUS

#### **INSTRUCTOR:**

Instructor	Information
Instructor:	Carrie Wood
Office Location:	Tarpon Springs/Online
Office Hours:	Online/ <a href="http://www.spcollege.edu/instructors/id/wood.carrie">http://www.spcollege.edu/instructors/id/wood.carrie</a>
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(Please use Angel for class communication)	

#### **Biography**

*My educational background is: I have a MISM (Masters in Information Systems Management) and a BSTM (Bachelors of Science in Technical Management). I have been in the work industry since I was 15 holding a variety of positions. I worked for many years in the Real Estate business in a Call Center providing technical assistance to Agents and their owners. Then I moved onto another call center where I was a Trainer and a Help Desk Technician to employees of a very large accounting firm. Here I am now teaching IT Courses. Somewhere I never imagined being a Instructor, but loving what I do. I considered myself a Technical person, having interest in Business and Technology for as long as I can remember. I am always looking for ways to improve current technology I have access too. I also take pride in being the Director of Children's Education for our church and handle all of their technical issues as well as preparing weekly power points for services. My teaching philosophy is everyone deserves a chance at learning through various ways. I believe in communication as the key goal for students and professors to succeed in each course. Professors should always be available to assist students in various ways as each student has a different way of learning and a different way of understanding material presented to them. It is my goal to have every student that I am involved with to succeed to their fullest extent and to provide as much assistance to them as I possibly can. My interests are my 4 children, 4 girls ages 2, and 9-11, my husband, volunteering at my church, teaching Sunday School, teaching college courses, and helping in various ways anywhere I can, I love being involved with people.*

#### **ACADEMIC DEPARTMENT:**

Academic Department	Information
Dean:	Dr. Sharon R. Setterlind
Office Location:	St Petersburg/Gibbs – TE116C
Office Telephone Number:	727-341-4724

## Required Materials

<b>Textbook</b>	Modern Database Management ISBN-10: 0132662256 ISBN-13: 9780132662253 Publisher: Prentice Hall 11th Edition Authors: Jeffrey Hoffer, V. Ramesh, Heikki Topi
<b>eTextbook</b>	Modern Database Management ISBN: 11 <sup>th</sup> Edition Authors: Jeffrey Hoffer, V. Ramesh, Heikki Topi
<b>Flash Drive X2 Optional</b>	If you are in a Blended or In Person class, you must use a flash drive to store files saved using SPC computers. Files saved to an SPC computer will be erased when you logout.
<b>Headphones Optional</b>	These will be used during Lab sessions, to listen to Resource Videos & Tutorials.

## COURSE INFORMATION:

### Course Description:

This course will provide students with hands-on experience in creating and maintaining a relational database application. Students will learn the various functions and commands of the database as well as how to plan, normalize, create, use and program fully relational databases for common business applications. Students will learn relational database theory and design, formal naming conventions, and database programming techniques. 47 contact hours.

## Course Objectives and Learning Outcomes

### Major Learning Outcomes:

1. The student will use standard database theory to design, create and normalize a relational database application.
2. The student will learn the various commands of a database package to create, use and change tables within the relational database structure.
3. The student will learn to create screen forms to provide a Graphical User Interface for the end user.
4. The student will use structured query language (SQL) to retrieve information, program the database and populate controls.
5. The student will use basic functions to manipulate data.
6. The student will create simple procedures using SQL programming language.
7. The student will learn to perform relational database maintenance.
8. The student will learn techniques to implement password protection
9. The student will learn techniques of multi-user application development and front-end / back-end database management.

### Course Objectives Stated in Performance Terms:

1. The student will use standard database theory to design, create, and normalize a relational database application by:

- a. turning raw data into useful information.
  - b. normalizing a relational database using the formalized normalization process to either the Third Normal form or to the Boyce-Codd Third Normal form.
  - c. creating an E-R (entity – relationship) diagram and translating the diagram to standard database notation.
  - d. defining and creating one-to-one, one-to-many, and many-to-many relationships and enforcing referential integrity in order to preserve database integrity.
2. The student will learn the various commands of a database package to create, use and change tables within the relational database structure by:
  - a. creating and formatting table structure using various field types.
  - b. designing a solution to a common business problem by creating a fully programmed relational database.
  - c. using standard naming conventions for all database objects.
  - d. creating indexes, primary and composite keys, foreign keys, input masks, validation text and rules, default values and ensuring data integrity.
  - e. creating a relational database file, relational tables and field structure with appropriate field types and properties.
  - f. entering data into relational tables, creating the necessary primary or composite keys.
3. The student will learn to create screen forms to provide a Graphical User Interface for the end user by:
  - a. creating calculated fields to mathematically manipulate data.
  - b. using forms to create, update, modify, or enter data into a table or tables.
4. The student will use structured query language (SQL) to retrieve information, program the database and populate controls by:
  - a. writing simple SQL statements to extract and manipulate specific data.
  - b. demonstrating an understanding of Inner and Outer Left and Outer Right Join.
  - c. using built-in aggregate SQL functions to perform mathematical manipulation of data.
5. The student will use basic and advanced functions to manipulate data by:
  - a. using basic functions such as UPPER, LOWER, INITCAP, LENGTH.
  - b. using advanced functions to manipulate data such as CONCAT, SUBSTR, TO\_CHAR.
6. The student will create simple procedures using SQL programming language by:
  - a. creating procedures to manipulate reports and report data.
  - b. creating procedures that are triggered by specific events firing such as on opening a form or report, on clicking a button or control.
  - c. writing standard blocks to handle and trap errors and create global variables.
7. The student will learn to perform relational database maintenance by:
  - a. compacting, linking, splitting, and replicating relational databases.
  - b. performing backup procedures to ensure safety of data.
  - c. performing restore procedures.
8. The student will learn techniques to implement password protection

- a. implementing password protection.
- 9. The student will learn techniques of multi-user application development and front-end / back-end database management by:
  - a. describing the purpose of front-end/back-end databases.
  - b. explaining the purpose of synchronization of databases.

## Student Feedback

The Student Survey of Instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement. You are encouraged to complete the survey toward the end of the class.

## Policies

### Cheating

Cheating is taken SERIOUSLY. Cheating includes, but is not limited to, the following:

- Any individual other than yourself keying the assignments/tests.
- Working together to produce an assignment and then printing the assignment with a change of names is not acceptable. Individuals should do their own work on individual computers.
- Copying information from the Internet into a Discussion Posting.

Cheating could result in an "F" for the course and/or suspension from the college. Please see the college catalog and the St. Petersburg College website's [Academic Honesty Policy](#) for detailed information concerning cheating.

### Some of Your Responsibilities to This Course

Note that additional responsibilities may be added as necessary.

- Be respectful of your instructor and fellow classmates at all times.
- Please participate in class. Participation counts toward your final grade.
- As a courtesy, please do not talk, type, or print while the instructor is talking to the class, or when a student is asking a question pertaining to the class.
- You are encouraged to work together to solve problems. However, you must complete your own work.
- Class participation is expected and encouraged. Participation is defined as following along during class demonstrations, asking questions, completing assignments in a timely manner, and taking part in discussions and activities. It does not include playing computer games during class, emailing, or surfing the Internet.
- No food or drink is allowed in the classroom. Only bottled water, in a clear container, with a cap. This is due to safety concerns and that of the equipment in the class.
- When exiting the classroom, please make sure to push in your keyboard tray, push in your chair, and take any accumulated trash with you.
- **Remember to remove your Flash drive.**
- E-mail should be written in a professional manner. Please avoid texting

abbreviations such as LOL.

- It is expected that you check your ANGEL e-mail every week day. I communicate with you via ANGEL e-mail only.
- Read, retain, and become familiar with the contents of this syllabus. You are responsible for understanding and abiding by these policies.
- During lectures and software walk-throughs, students are required to participate by following along on their workstation and by taking notes. After lectures, you are expected to participate in the laboratory time working independently on your computer unless it is a team project. When you have difficulties, let the instructor know and you will receive one-on-one attention.
- Students are responsible for reading my e-mails, announcements, and comments on graded submissions. Students should access the course in Angel at least 5 days a week.
- Students are responsible for posting questions or concerns and/or meeting with the Instructor during office hours.
- You are responsible for working exercises and drills, and completing all assignments by the assigned due date. You are also responsible for participation in all activities as directed by the instructor.
- It is your responsibility to complete each lesson assigned in the text and to review and study any supplemental material.
- It is your responsibility to either have appropriate computer equipment and software at home as outlined by this syllabus or else spend a significant amount of time at the Learning Support Center in order to complete homework assignments.

### **Electronic Devices**

Before entering the classroom, turn off or mute cell phones to avoid causing disruptions. All electronic devices including computers, cell phones, beepers, pagers, and related devices are to be silenced and/or turned off unless they are required for academic purposes. Any use of electronic devices for non-academic purposes is a violation of College Policy and subject to disciplinary action. The instructor will not allow the use of cell phones or any other electronic devices other than simple calculators during the class. The use of cell phones as calculators will not be allowed especially during quizzes and exams.

### **Syllabus Addendum**

You must read and adhere to the college-wide policies, noted on this webpage:

<http://www.spcollege.edu/central/asa/addendum.htm>

You must follow the Academic Honesty Guidelines as well as Classroom Behavior listed as part of the College's policies.

[http://www.spcollege.edu/webcentral/catalog/current/stu\\_affairs\\_honesty.htm](http://www.spcollege.edu/webcentral/catalog/current/stu_affairs_honesty.htm)

Online /Student Conduct Link:

<http://www.spcollege.edu/ecampus/help/conduct.htm>

Online Student, Faculty and Staff Expectations and Performance Targets:

<http://www.spcollege.edu/ecampus/help/expectations.htm>

### **Emergency Management – In Case of a Disaster**

You must read the Emergency Management/Disaster information, noted on this webpage:

<http://www.spcollege.edu/central/campussecurity/EM/>

### **Students with Disabilities**

If you wish to request accommodations as a student with a documented disability, please make an appointment with the Learning Specialist on campus. If you will need assistance during an emergency classroom evacuation, please contact your campus learning specialist immediately about arrangements for your safety.  
<http://www.spcollege.edu/webcentral/catalog/Current/ossd.htm>.

#### **Criteria Performance Standard:**

Upon successful completion of the course, the student will, with a minimum of 70% accuracy, demonstrate mastery of each of the above stated objectives through classroom measures developed by individual course instructors.

### **MEETING INFORMATION:**

ONLINE - 12:00 AM – 11:59 PM - Monday – Sunday

**The Assignment Checklist has the Module due dates!**

### **IMPORTANT DATES:**

**Course Dates:** 3/11/13 through 5/3/13

**Drop/Add:** See Academic Calendar

**Withdrawal Date:** See Academic Calendar

**Academic Calendar:** <http://www.spcollege.edu/webcentral/admit/dates.htm>

**Financial Aid:** <http://www.spcollege.edu/central/SSFA/HomePage/calendar.htm>

### **ATTENDANCE:**

The college-wide policy is included in the Syllabus Addendum.  
<http://www.spcollege.edu/central/asa/addendum.htm>

Below is an outline of the college's attendance policy:

- Attendance will be taken for the first two weeks of the class to determine if you have been actively participating in the class. You need to complete the following to be considered to be actively participating in the class:
  - Start Here & Syllabus Quiz, Discussion and Assignments post (Week 1)
  - All assignments including but not limited to Discussion, Quiz and weekly assignments (Week 2)
- If you are not actively participating for the first two weeks, you will be withdrawn from the class with a "W". You will also be denied access to the course on ANGEL.
- At the 60% point of the class, attendance will be taken for the third time to determine that you have been actively participating. This will be determined by the following:
  - Complete at least 11 of the 19 required assignments on time
- If you are considered not actively participating in the course at the 60% point, you will be withdrawn with a "WF".
- Students are required to withdraw themselves on or before the 60% point in the course to receive a grade of "W". The final date for voluntary withdrawal is published in the [academic calendar](#). This date varies for dynamically dated, express and modmester courses.

**NOTE - Your instructor will not be able to withdraw you from the class. It is your responsibility.**

- If a student wishes to withdraw after the 60% point they will receive a "WF" grade.

## GRADING: Methods of Evaluation

\*\*Grading will be based on a point system. The breakdown for each is as follows:

Title	Points	Percentage
Discussion Board	140	15.6%
Quizzes	310	34.4%
Assignments	450	50%

A - 90%

B - 80%

C - 70%

D - 60%

F - below 59%

**\*\*Subject to change with notification\*\***

### ASSIGNMENTS:

1. **Assignments** are due on each Sunday prior to Midnight. If there are problems with completion of the assignment by the appointed date, the student must discuss the matter with the instructor **PRIOR** to the due date. Due dates are specified in the Assignment Checklist.
2. Each week the Drop Boxes will detail format and submission instructions. Ensure that you review these instructions prior to submitting attached documents.
3. It is the student's responsibility to follow the schedule of class assignments.
4. **Late work will not be accepted, graded, or reviewed unless permission is granted PRIOR to assignment due dates. In the event an emergency occurs, please contact me regarding college policy for submitting documentation.**
5. You will need access to the Internet, Microsoft Access and Excel for this class. Other resources may be downloaded from Angel or the Internet. All SPC campus libraries and Learning Resource Centers have these programs loaded on their computers.
6. **Discussions** are part of your grade. Failure to post on the discussion board weekly will count as an absence.