

Thomas L. Brown
<http://faculty.tamuc.edu/tombrown/cs470.html>
conference hours: 3:30 Mon-Thu, 2:00 Tue & Thur

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C.S. 470: Database Programming

Course Description:

A course on the development of database applications with an emphasis on programming for database access. It includes data storage and manipulation, information presentation with database connectivity using such application programming interfaces as stored procedures, and embedded SQL. Topics in PHP, MySQL, and HTML, programming are also included. Prerequisite: CSci 340.

Audience:

Students planning to enroll for this course should have a mastery of file programming and the basics of database management. Background in client-server applications is useful for developing database/internet applications.

Student Learning Outcomes:*

1. Identify and explain the major components of the relational data model.
 2. Utilize structured query language (SQL) to define and manipulate database objects in the interactive mode.
 3. Incorporate procedural extensions to SQL for maintaining database tables.
 4. Develop application program interfaces to access databases.
 5. Design a database-supported web site.
 6. Develop a database-supported web site utilizing HTML and PHP and MySQL.
 7. Perform database administration to implement software to support database application development.
- * As measured by exam, quiz, lab and homework assignment results

References and Materials:

1. Welling and Thomson. PHP and MySQL Web Development, 4ed., Indianapolis: Developer's Library--Sams Publishing. (October 2009; ISBN: 0-67-232916-6)
*This item is available as an A&M-Commerce Safari (online) book.
2. Apache, PHP and MySQL are available for academic use and may be downloaded php.net, mysql.com or as a package from apachefriends.org.
3. A usb flash drive to store software, course files and documents.

Course Requirements:

Written exams over the readings, discussion and exercises;
Database laboratory assignments;

Mon/Wed 11:00 - 12:15 pm

Classroom: JO 200

CLASS POLICY

Activities and Requirements:

1. **Assigned Readings:** The student is expected to read assignments to prepare for scheduled discussions of the material.
2. **Attendance:** The student is expected to attend orientation classes, and the exam meetings. Regular class and/or online participation should ensure that expectations are understood, and provide the instructor feedback to monitor and assess progress. The student is responsible for accessing the course webpage to obtain assignments and related materials.
3. **Participation:** The student is expected to take part in scheduled discussions, implement and test software examples, present lab/project progress reports and solutions, and assist other class members with technical issues from their area of specialty.
4. **Laboratory:** It is expected that the student will start each assignment when given, and present finished products by the due date. If a lab solution is not submitted when due, completing the next assignment will provide a grade for both.
5. **Exams:** The student is expected to complete each exam at the scheduled time. If an exam is missed, completing the next exam will provide a grade for both. The exams are based upon all learning objectives reached by the schedule date.
7. **Conduct:** "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (Student Handbook). Until a specific university policy is adopted, any form of smoking is prohibited in or near the classroom.
8. **Special Accommodations:** Students in need of accommodations for disabilities should contact the Director of Disability Resources and Services, Halladay Student Services Building, Room 303D, phone 903.886.5835.

Intellectual Honesty:

By departmental policy, the discovery of plagiarism (example: copying from another's exam paper or lab) will result in a grade of F on a particular exam, or other work submitted for an individual grade. This departmental policy also mandates a grade of F in the course for a subsequent act of plagiarism.

Measurement and Evaluation:

Grades will be based upon an evaluation of exam scores(200 points), and lab assignments(200 pts). Earning 90-100% of possible points will earn the grade A, 80-89% a B, etc. University policy must be followed to obtain an X ("incomplete"). Unless circumstances warrant, the student is expected to withdraw instead of delaying completion of the course.

Outline/Schedule

Week	Topic/Activity	Reference#
1	Orientation Database administration	Appendix A
2-5	PHP and HTML*	1-7
6-7	Introduction to relational databases and MySQL*	8-10
8	Review Midterm exam: unit 1 topics	1-10#
9	Spring vacation	
10	Stored program development	13
11	Forms and presentation	1,11
12	Web database access with HTML, PHP and MySQL	11
13-15	eCommerce application development	14,25,28
16	Review#	
17	Final Exam - unit 2 topics	11,13,14,25,28#

text chapters plus supplemental materials
* continues for most of the semester