Course Syllabus
CSCE 4523 / CSCE 5523: DATABASE MANAGEMENT SYSTEMS
Spring 2019

Instructor: Brajendra Panda
Office: JBHT Building, Room: 524
Office Hours: Tuesday, Thursday: 2:30 pm – 3:30 pm, and by appointment
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Class URL: http://csce.uark.edu/~bpanda/db-adb/4523main.html


Course Objective: This course is designed to teach the basic principles of data management in a database environment. Topics I plan to cover include introduction to database systems, database architectures, relational data model and languages, entity-relationship model, database design, database security, transaction management, and query processing, etc.

Course Outcome: Develop knowledge of database management and expertise in a fourth generation programming language by composing, testing, and documenting programs in SQL.

Pre-Requisite: CSCE 3193 or CSCE 3193H with a C or better.

Topics expected to be covered on a week-by-week basis:
Week 1: Introduction to Databases, ANSI-SPARC Architecture
Week 2: Database Languages, Relational Model
Week 3: Relational Model (continued), Relational Algebra
Week 4: Relational Algebra (continued)
Week 5: E-R Model
Week 6: E-R Model (continued)
Week 7: Normalization
Week 8: Normalization (continued), Database Design
Week 9: Database Design (continued)
Week 10: Security
Week 11: Transaction Management
Week 12: Transaction Management
Week 13: Transaction Management (continued)
Week 14: Query Processing
Week 15: Query Processing (continued)
Week 16: Review

Note: The above schedule is tentative. The instructor will adjust the pace as needed to accommodate class potential and any conflicts.

Attendance: I expect you to attend the entire period of each class. You are responsible for all materials covered and any information provided during your absence.

Assignments: I plan to give four to five programming assignments. Each assignment will be due one week after it is given, and will be graded out of 30 points. Late assignment submissions will not be accepted. *No make-up will be allowed.*

Note: If you do not understand and need help with any assignment, I will be happy to explain the required logic; but I will not code/debug the program for you. You are expected to submit your own work and are not allowed to distribute your code to any other student, or copy code from another student. Any instance of academic dishonesty will be reported as per University policy.

Quizzes: There will be a total six quizzes to be given in class and each quiz will be graded out of 40 points. The dates for the quizzes are shown below. However, the instructor reserves the right to reschedule any of those with one-week advance notice.
Quiz 1: January 31, 2019
Quiz 2: February 19, 2019
Quiz 3: March 7, 2019
Quiz 4: April 4, 2019
Quiz 5: April 23, 2019
Final: May 7, 2019, 10:15 AM to 11:15 AM

*Note 1:* Students may be asked to show university issued photo ID to the instructor at the start of each quiz.

*Note 2:* Use of calculator and/or any electronic device (including cellphones) will not be allowed during any of the quizzes. The instructor may prohibit any object that, in his opinion, may interfere in conducting a fair test.

*Note 3:* Graduate students will see additional question(s) in quizzes.

*Note 4:* If anyone wants his/her quiz to be re-graded, request for re-grading must be made in class immediately after the quiz is handed back.

*Note 5:* Students need to pass both the assignments portion and the quiz portion of the class with a grade of D or better in order to pass this course. Hence, an overall average greater than 60% may still result in a failure.

*Note 6:* It is the student’s responsibility to collect all assignments and quizzes after they are graded and keep with them at least until the end of the semester.
case there is a discrepancy in recorded score, the corresponding graded assignment/quiz must be provided to the instructor for verification, without which the score cannot be altered.

**Make-up:** No make-up, either for a missed quiz or an assignment, will be allowed. However, to allow some flexibility, I will drop the lowest of the quiz scores.

**Final Grade:** Your final grade will be based on the total number of points accumulated on programming assignments and quizzes. Absolutely no extra credits will be given. The projected ranges of scores to be used in calculating the final grades are:

- A: \( \geq 90\% \)
- 90\% > B \( \geq 80\% \)
- 80\% > C \( \geq 70\% \)
- 70\% > D \( \geq 60\% \)
- F: < 60\%

**Academic Honesty:** As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail.

Each University of Arkansas student is required to be familiar with and abide by the University’s ‘Academic Integrity Policy’ which may be found at honesty.uark.edu/policy. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.

**Emergency Preparedness:** Many types of emergencies can occur on campus; instructions for specific emergencies such as severe weather, active shooter, or fire can be found at emergency.uark.edu. The University of Arkansas has a campus-wide alert system for any hazardous conditions that may arise on campus. To learn more and to sign up: http://safety.uark.edu/emergency-preparedness/emergency-notification-system/

**Inclement Weather:** If the university is officially closed, class will not be held. When the university is open, you are expected to make a reasonable effort to attend class, but not if you do not feel that you can get to campus safely. Any changes to due dates or the class schedule will be communicated via email to your uark email address.

**Violence / Active Shooter (CADD):**
- **CALL**- 9-1-1
- **AVOID**- If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- **DENY**- Barricade the door with desk, chairs, bookcases or any items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it’s safe.
- **DEFEND**- Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

**Academic Support:** University of Arkansas Academic Policy Series 1520.10 requires that students with disabilities are provided reasonable accommodations to ensure their equal access to
course content. If you have a documented disability and require accommodations, please contact me privately at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through the Center for Educational Access (contact 479–575–3104 or visit http://cea.uark.edu for more information on registration procedures).