

# **COURSE SYLLABUS**

## **COLLEGE OF BUSINESS**

**SPRING SEMESTER, 2015**



**CIS 445-01**

## **ADVANCED DATABASE MANAGEMENT SYSTEMS**

|                            |   |
|----------------------------|---|
| <b>INSTRUCTOR:</b>         | Jason Watson, Ph.D., Assistant Professor<br>Department of Computer Science and<br>Information Systems   |
| <b>OFFICE HOURS:</b>       | Tuesday: 3:00 p.m. – 6:00 p.m.<br>Wednesday: 8:00 a.m. – 11:00 a.m.<br>Thursday: 3:00 p.m. – 4:00 p.m.<br>Additional hours by appointment.  |
| <b>OFFICE LOCATION:</b>    | Keller Hall, 2 <sup>nd</sup> Floor, Office #248   |
| <b>OFFICE TELEPHONE:</b>   | 256-765-4689 (please leave message)   |
| <b>E-MAIL</b>              | Canvas CIS 445-01 Course Inbox (preferred)<br>jwatson5@una.edu  |
| <b>FAX:</b>                | 256-765-4811 (CSIS Department Office)   |
| <b>CLASS LOCATION:</b>     | Keller Hall, Room 333   |
| <b>COURSE TIME:</b>        | Tuesday/Thursday 11:00 p.m. – 12:15 p.m.  |
| <b>COURSE DESCRIPTION:</b> | An intensive examination of organizational databases, including data validity, reliability, security, and privacy. Structured query languages and report generators will be emphasized. Distributed databases, data mining, and data warehousing are introduced. The roles of database administrator and data administrator will be explored. A current enterprise DBMS like ORACLE will be used. |
| <b>SECTION NUMBER:</b>     | 01 (20949)  |
| <b>CREDIT HOURS:</b>       | 3   |

**PREREQUISITE:** Both CIS 330 and CIS 366, or CS 255.

**COURSE DELIVERY METHOD:** Traditional Classroom

**COURSE OBJECTIVES:**

The student will:

1. Understand the role of databases and database management systems in the context of enterprise systems. [CIS Program Outcome a][COB Goals 2,3].
2. Develop an understanding of relational database principles, design, technology, and applications including:
  - a. Database administration tasks
  - b. Transaction management
  - c. Database security
  - d. Object-oriented data modeling
  - e. Data quality principles
  - f. Business intelligence (data warehousing, data mining)[CIS Program Outcomes a,b,i][COB Goal 3].
3. Understand the mechanisms for accessing relational databases from various types of application development environments [CIS Program Outcomes a,b,c,i] [COB Goal 3].
4. Learn to communicate and work in teams [CIS Program Outcome d][COB Goal 1].
5. Learn the need for engaging in continuing professional development [CIS Program Outcome h][COB Goals 3,4].

**TOPICS COVERED:**

- 1.) Database administration and security
- 2.) Transaction management and concurrency control
- 3.) Performance tuning and optimization
- 4.) Business intelligence
- 5.) Database connectivity and web technologies

**COURSE EVALUATION PROCESS (Grade Components):**

|  |     |
|--|-----|
| Subject Exams (2 exams @ 15% each) ..... | 30% |
| Projects .....                           | 30% |
| Quiz and In-class Work Average .....     | 10% |
| Final Exam.....                          | 30% |

## **REQUIRED TEXTBOOK, SOFTWARE, AND SUPPLIES:**

Coronel, C. & Morris, S. (2014). Database Systems: Design, Implementation, & Management, 11<sup>th</sup> Edition. Cengage Learning. ISBN-10: 1285196147; ISBN-13: 978-1285196145.

Supplies:

USB storage drive with greater than 8GB available.

## **IMPORTANT TECHNICAL SUPPORT CONTACT INFORMATION:**

UNA Technical Support:

- Canvas Support: Please click the 'Report a Problem' link from the Help menu within Canvas. If you cannot log-in to Canvas, then please e-mail [canvas@una.edu](mailto:canvas@una.edu) (from your UNA portal e-mail if possible).
- Canvas FAQ: <http://www.una.edu/distance/help/canvas.html>.
- UNAPortal FAQ: [www.una.edu/faq/](http://www.una.edu/faq/)
- LIVE@EDU (Email) FAQ--contains information about setting up UNA email on your mobile device: [www.una.edu/compcenter/live/](http://www.una.edu/compcenter/live/)
- UNA Information Technology Services Support: [helpdesk@una.edu](mailto:helpdesk@una.edu) (from your UNA portal e-mail if possible)

## **ACADEMIC HONESTY—UNIVERSITY POLICY**

Students are expected to be honorable and observe standards of conduct appropriate to a community of scholars. Additionally, students are expected to behave in an ethical manner. Individuals who disregard the core values of truth and honesty bring disrespect to themselves and the University. A university community that allows academic dishonesty will suffer harm to the reputation of students, faculty and graduates. It is in the best interest of the entire university community to sanction any individual who chooses not to accept the principles of academic honesty by committing acts such as cheating, plagiarism, or misrepresentation. Offenses are reported to the Vice President for Academic Affairs and Provost for referral to the University Student Discipline System for disposition (see “Academic Honesty” in the Academic Procedures and Requirements section of the University Catalog for more information).

## **STUDENTS WITH DISABILITIES—UNIVERSITY POLICY**

In accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, the University offers reasonable accommodations to students with eligible documented learning, physical and/or psychological disabilities. Under Title II of the Americans with Disabilities Act (ADA) of 1990, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Amendment Act of 2008, a disability is defined as a physical or mental impairment that substantially limits one or more major life activities as compared to an average person in the population. It is the responsibility of the student to contact Disability Support Services to initiate the process

to develop an accommodation plan. This accommodation plan will not be applied retroactively. Appropriate, reasonable accommodations will be made to allow each student to meet course requirements, but no fundamental or substantial alteration of academic standards will be made. Students needing assistance should contact Disability Support Services. Complete guidelines and requirements for documentation can be found on the DSS web pages at <http://www.una.edu/disability-support>.

## **INFORMATION TECHNOLOGY ACCEPTABLE USE—UNIVERSITY POLICY**

This acceptable use statement governs the use of computers, networks, and other information technologies at the University of North Alabama. This statement applies to all students and employees of the University, and to all other persons who may legally or illegally use or attempt to use a computer resource owned by the University, and/or is connected by any means to the campus computing network. As a user of these resources, you are responsible for reading and understanding this document. To view the entire Information Technologies Acceptable Use Statement, please see <http://www.una.edu/its/una-it-policy.html>.

## **EMAIL DROP PROCEDURE—UNIVERSITY POLICY**

Process to Drop Courses by E-mail (Preferred): Any student wishing to drop a class may logon to their secure UNA email account and send an email to their instructor of record and a copy of the email to the Registrar's Office at registrar@una.edu. This will be valid for online courses as well as regular courses. The email MUST come from the student's UNA Portal account. The Registrar's Office will officially drop a student from the course after receiving a response from the instructor which includes permission to drop and their grade of W, WP, or WF. In the email, be sure that you include your full name, UNA ID number, course section and 5 digit course registration code.

## **COMMUNICATION EXPECTATIONS—COLLEGE OF BUSINESS POLICY**

### **Communication Methods...**

- Anytime you need to communicate with your professor, please use the Canvas Inbox (top right of page). Please allow up to 48 hours for a reply. Correspondence received on Fridays and university holidays will not be addressed until the next regularly scheduled business day at UNA.
- Please post your questions about the course on the "HELP! I have a question" discussion board. For the discussion title, use your question. Always check this board before e-mailing or creating a new question post on the board. If you know the answer to a question, please feel free to post the answer. I will address the questions on this board as well.
- You may also call or drop by the office during regularly scheduled office hours. If these times do not work for you, please contact me for an appointment.

### **Communication Expectations...**

- Don't use profanity. You do not need to use profanity simply to communicate a difference of opinion or point of view. Choosing to do so, speaks volumes about your character, lack of professionalism and, yes, education. When it comes to business e-mail, the words you choose and how you choose to use them can be directly correlated to how you run your business, what you feel is important (or not), what you will be like to work with as well as your level of professionalism.
- Be mindful of your tone. Unlike face-to-face meetings or even phone calls, those who read your messages don't have the benefit of your pitch, tone, inflection, or other non-verbal cues. As a result, you need to be careful about your tone. Sarcasm is especially dangerous. If something gets "lost in translation," you risk offending the other party. The more matter-of-fact you can be, the better.
- Ensure that criticism provided in feedback or discussion is constructive. Online communication tools offer the opportunity to provide feedback and support discussion, both of which should be constructive. It is not an appropriate medium for personalizing negative (reactive, rather than constructive) criticism. Chances are, you will simply offend the other person, and they will miss your point. Remember, online messages live forever. They are easily forwarded.
- Don't reply in anger. In the heat of the moment, I have written some brilliant replies. I have said things in writing that I would never have the guts to say face-to-face. This is precisely why you should never ever fire off any online message in anger. They almost never serve their purpose or your long-term interests. They burn up relationships faster than just about anything you can do. If it makes you feel better, go ahead and write the message, then delete it. Usually a day or two afterwards you'll not only understand but also appreciate the wisdom of restraint.

## **GENERAL POLICIES AND PROCEDURES:**

Come to class on time. Arriving late and/or leaving early are both disruptive to your fellow students and to the instructor. Be considerate of your fellow students and your instructor.

Silence all pagers, cell phones, electronic/watch alarms, laptop computer sounds, etc.

CSIS POLICY: Whenever a student's cumulative absences for any reason - excused or unexcused - exceed the equivalent of three weeks of scheduled classes and activities (one week in each four-week session or two weeks in the eight week summer term), no credit may be earned for the course at the discretion of the professor.

Makeup policy:

Exams:

You must inform your instructor prior to an exam if you have a valid reason to miss (even if your absence is announced by a University official). If the instructor determines that you have a valid excuse for missing the exam, a makeup exam will be scheduled within one week of the missed exam. If you do not contact your instructor within one week of the missed exam, your absence will be recorded as unexcused and you will receive a zero for the exam.

Assignments:

No makeups will be offered for the assignments portion of your grade.

#### Grading:

If you feel there is an error in the grading of your assignments, you must bring them to the instructor's attention within one week after the assignment was graded and returned.

#### **ACADEMIC HONESTY—COURSE POLICY**

All documented offenses will result, at a minimum, with a grade of zero for the assignment and may be assigned additional penalties to the student: note that a repeated pattern of academic dishonesty may result in removal from the University. Offenses will be reported to the Vice President for Academic Affairs and Provost for referral to the University Student Discipline System. The Academic Dishonesty Incident Report form may be viewed at <http://www.una.edu/student-conduct/docs/Academic%20Honesty%20PolicyAcademic%20Honesty%20Incident%20Form.pdf>.