**COURSE SYLLABUS**

**COLLEGE OF BUSINESS**

**SPRING SEMESTER, 2017**

**CIS 445-01**

**ADVANCED DATABASE MANAGEMENT SYSTEMS**

**INSTRUCTOR:** Jason Watson, Ph.D., Assistant Professor

Department of Computer Science and

Information Systems

**OFFICE HOURS:** Monday 3**:**00 p.m. – 6:00 p.m.

Tuesday 2:00 p.m. – 3:30 p.m.

Wednesday 10:30 a.m. – 11:30 a.m.

Thursday 2**:**00 p.m. – 3:30 p.m.

Additional hours by appointment.

**OFFICE LOCATION:** Keller Hall, 2nd Floor, Office #248

**OFFICE TELEPHONE:** 256-765-4689 (please leave message)

**E-MAIL** Canvas CIS 445-01 Course Inbox (preferred)

jwatson5@una.edu (emergency)

**FAX:** 256-765-4811 (CSIS Department Office)

**CLASS LOCATION:** Keller 210

**COURSE TIME:** Tuesday/Thursday 9:30 a.m. – 10:45 a.m.

COURSE DESCRIPTION: An intensive examination of organizational databases, including data validity, reliability, security, and privacy. Generating reports using structured query languages is emphasized. Distributed databases, data mining, and data warehousing are introduced. The roles of database administrator and data administrator will be explored including understanding data integrity and security. A current enterprise DBMS will be used.

**SECTION NUMBER:** 01

**CREDIT HOURS:** 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:
   1. Database administration tasks
   2. Transaction management
   3. Database security
   4. Object-oriented data modeling
   5. Data quality principles
   6. Business intelligence (data warehousing, data mining)

[CIS Program Outcomes a,b,i][COB Goal 3].

1. Understand the mechanisms for accessing relational databases from various types of application development environments [CIS Program Outcomes a,b,c,i] [COB Goal 3].
2. Learn to communicate and work in teams [CIS Program Outcome d][COB Goal 1].
3. 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:**

Copeland, R. (2013). MongoDB Applied Design Patterns (1st edition). O'Reilly Media. ISBN-10: 1449340040, ISBN-13: 978-1449340049.

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 UNA Information Technology Services (ITS) Support at [helpdesk@una.edu](mailto:helpdesk@una.edu). In this email, include your full name, UNA email address, an alternative email address (if applicable), and a phone number where you can be reached.
* Canvas FAQ: <http://www.una.edu/distance/help/canvas.html>.
* UNAPortal FAQ: [www.una.edu/faq/](http://www.una.edu/faq/)
* 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.

**TITLE IX—UNIVERSITY POLICY**

The University of North Alabama has an expectation of mutual respect. Students, staff, administrators, and faculty are entitled to a working environment and educational environment free of discriminatory harassment. This includes sexual violence, sexual harassment, domestic and intimate partner violence, stalking, gender-based discrimination, discrimination against pregnant and parenting students, and gender-based bullying and hazing.

Faculty and staff are required by federal law to report any observation of harassment (including online harassment) as well as any notice given by students or colleagues of any of the behaviors noted above. Retaliation against any person who reports discrimination or harassment is also prohibited. UNA’s policies and regulations covering discrimination and harassment may be accessed at <https://www.una.edu/titleix/>. If you have experienced or observed discrimination or harassment, confidential reporting resources can be found on the website or you may make a formal complaint by contacting the Title IX Coordinator at 256-765-4223.

**UNA PORTAL—UNIVERSITY POLICY**

The official method of communication at UNA is UNA portal, with emphasis placed on University email. You may access your UNA Portal email through the University’s homepage at <https://www.una.edu/>. The link to Portal is at the top of the page. It is important for students to read their UNA Portal e-mail on a regular basis for information regarding University deadlines, policies, and events. These messages are outside your Canvas courses and relate to ALL University communication. Please understand the importance of each communication vehicle and the distinction between the two.

**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.

**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](http://www.una.edu/student-conduct/docs/Academic Honesty PolicyAcademic Honesty Incident Form.pdf).

**ATTENDANCE—COURSE POLICY:**

UNIVERSITY POLICY: Regular and punctual attendance at all scheduled classes and activities is expected of all students and is regarded as integral to course credit. Each student is directly responsible to the individual professor for absences and for making up work missed. Particular policies and procedures on absences and makeup work are established in writing for each class, are announced by the professor at the beginning of the term, and for excessive absences, may provide for appropriate penalties including reduction in grades or professor-initiated withdrawal from class. Official written excuses for absences are issued only for absences incurred in connection with university-sponsored activities. For all other types of group or individual absences, including illness, authorization or excuse is the province of the individual professor.

CIS 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.