MSIS 5643 – Advanced Database Management Systems
Spring 2018
Spears School of Business
Oklahoma State University

Sections:	MSIS 5643 in Stillwater (CRN 26757), and Online (CRN 26831)
Course Site:	(Brightspace by D2L): http://online.okstate.edu or http://my.okstate.edu
Instructor:	Dr. Ali Amiri
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Office Hours:	Tuesdays 3:30PM-5:00PM Central Standard Time and by appointment
Course Site:	Brightspace by D2L: http://online.okstate.edu or http://my.okstate.edu (choose Online Classroom after logging in)

Online Learning Support: spearsonline@okstate.edu, **Phone:** 405-744-4048
Facebook: Follow Spears School Online Learning on
Facebook! https://www.facebook.com/SpearsDistance/

Overview of the Course

Data has emerged as a strategic resource and hence, like other strategic resources (e.g. human and financial) must be managed with care and rigor. Today, business enterprises may prosper if they effectively process, analyze, and synthesize their data to produce timely and accurate information. The course will provide you (using lectures, classroom discussion, case studies, and laboratory exercises) with adequate technical knowledge of database systems while emphasizing planning, administrative and implementation issues necessary for successful management of corporate data resources. Students completing this class should gain a solid understanding of database concepts, theoretical and applied, and should be prepared to work effectively in the database environments that are so prevalent in today's global business enterprises. Databases are implemented on software packages with an emphasis on SQL. Current trends in database technology are also discussed.

Course Prerequisites

You should be a graduate student at OSU. You should have Internet access so that you can login to Brightspace and access the other resources.

Computer Requirements (for online course)

- A broadband internet connection
- Windows 7 or Mac OS Mavericks or newer operating system are preferred
- Google Chrome or Mozilla Firefox web browser
  Note: lecture videos are not compatible with Internet Explorer or Edge
- VLC Viewer video player (click on link to download)

Course Goals
This course introduces concepts and develops skills in database design, implementation and management. In addition students will be exposed to advanced topics such as data mining and data warehousing.

Course Objectives	Program Learning Goal Supported
1) *Students should understand today's relational database practices, approaches and issues*	• Business knowledge and competency • Critical and creative thinking skills
2) *Students should understand tools, methodologies, and skills for working successfully with databases in today's global, data-driven business models*	• Business knowledge and competency • Critical and creative thinking skills • Technology skills
3) *Student should be able to apply some of these tools and skills through problems and exercises*	• Business knowledge and competency • Critical and creative thinking skills • Technology skills

Textbook
Database Systems: A Practical Approach to Design, Implementation, and Management, 6 ed., by Thomas Connolly and Carolyn Begg, published by Pearson 2015, ISBN-13: 978-0-13-294326-0.

Class attendance (for on-campus Stillwater class)

Since each part of this course builds on previous material, it is essential that you attend every class period. Class discussions and contributions from class members add depth and interest to class sessions, and you are needed to contribute your share. Material supplemental to the text will be presented in class, and you will be held responsible for it. You are also responsible for any announcements made in class, including any alterations to the tentative schedule. If you should have to miss a class, determine what you have missed and take appropriate measures. By attending class regularly, you are helping your chances for a good grade by participating in class discussions, getting handouts and announcements, and practice and review to help you do well in the exams.

This course will be challenging and will require several hours a week of work outside the classroom.
The policies and schedule contained in this syllabus are subject to change at the discretion of the instructor upon notice to the class.

Grading Policy: The percentage weights for the different components of the average grade are shown below.

Midterm 1 **(February 22-23, 2018)**	20
Midterm 2 **(April 5-6, 2018)**	20
Final (during the week of **May 7-11: Exact date will be announced**)	40
Homework Assignments	20
Total	100

Grades will be assigned according to the following average score distribution.
A: 90 – 100; **B**: 80 – 90; **C**: 70 – 80 **D**: 60-70 **F**: < 60

Internet Netiquette Guidelines

A melding of the words "network" and "etiquette", **netiquette** refers to the manner in which communication is conveyed in an electronic environment.

Here are some guidelines for communication within this course:

- REFRAIN FROM USING ALL CAPS. It is considered SHOUTING when communicating online.
- Do not post or forward offensive or racially insensitive jokes or comments.
- Be careful with humor and sarcasm.
- Don't respond to personal attacks: Contact the instructor for action and referral.
- Always add in the subject line a concise statement describing the email or discussion post.
- Respect others' opinions. If you disagree with what another has said, post your thoughts in an objective, respectful manner. Do not make remarks that can be taken personally.
- Reflect upon the text you have entered before posting.
- Keep the discussion within the scope of the course material.
- Communication should be grammatically correct. Adhere to correct sentence structure, grammar, and spelling conventions. Proofread for errors before posting a message.
- Before you respond to a threaded message, read all the messages related to that message that have been previously posted.
- Send out an email to a group using the blind carbon copy field – BCC does not allow your recipients to view who was sent the email.

Exams

There will be two midterms and a final exam. They will cover assigned readings from both of the required textbooks, assignments, and material and concepts presented and discussed in class. All exams can include the following types of questions: true-false, multiple-choice, matching, short-answer, problems and essays. Exams will be retained by the instructor. You are required to take the exam during the scheduled time. For the online class, students will have a 2 day window to complete the exam at his/her testing center. No make-up exams will be given except under medical conditions with proofs. If it is not possible for you to be present for an exam, please contact the instructor in advance. **Make-up exams can be different from the original exams.** If a makeup exam is necessary and after I grant permission, the student must make

arrangements on their own with his/her testing center to take the exam.

Within the first week of class, go to the Spears School of Business Online Learning website to choose a proctor at: spearsonline.okstate.edu, and click on "Select Proctor" at the top right of the page. Follow the instructions to identify your proctor site. One week before each exam start date, make your appointment directly with your testing center to take each exam. The exam and/or exam instructions will be sent to your proctor site 2 days prior to the exam window. Contact the Spears School Online Learning office at spearsonline@okstate.edu, or call (405) 744-4048 if you have any questions regarding the proctoring process. You may also visit http://spears.okstate.edu/online/guide.

Please note: The format of the exams in this course are paper-based and must be taken at an approved testing center. There is a lack of certified testing centers outside of the United States. Per Spears School of Business Online Learning Office policy, paper based exams cannot be administered to a student in an international location. Therefore, if you know you are traveling internationally during the exam periods, you will be unable to take the exams abroad, and successfully complete the requirements for this course. You should drop this course and re-enroll in this course during a time you are within the U.S. and can take the exams at a certified testing center.

For those of you who are local to Stillwater and plan to choose the UAT Testing Center on campus as your testing center site this semester, be aware the testing center has limited capacity. If you choose UAT as your testing center of choice, I encourage you to make your exam appointments for ALL exams in this course with them within the first week of class. Date ranges of the exams are listed on this syllabus.

Homework assignments
There are several homework assignments that must be turned in throughout the semester. **All assignments should be submitted in the appropriate, deadline-enforced, Brightspace DropBox.** Please note that the **Dropbox will not accept late assignments**. Solutions to the homework will be made available in **Brightspace** after the assignment due date.

The first paragraph of each submitted homework should include the following declaration (fill in your first name, last name, and CWID).
"I _____ _____ with CWID _____ declare that the work I submitted is completely the result of my own efforts. I understand that if I violate this rule, then I could be subjected to penalties under the academic integrity policy, which may include, but are not limited to, a fail grade in this course."

Academic Integrity Policy----Oklahoma State University is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (including any form of cheating) will result in the student(s) being sanctioned to the fullest extent allowed by the University.

OSU Academic Integrity statement: I will respect Oklahoma State University's commitment to academic integrity and uphold the values of honesty and responsibility that preserve our academic community.

For more information refer to: http://academicintegrity.okstate.edu/

Special accommodations: If any student of this class feels that he/she has a disability and needs special accommodations of any nature, you should contact me or the Office of Student Disability Services (326 SU). Reasonable accommodations will be made to ensure that you have a fair opportunity to perform in this class. **No accommodations will be made without prior notification.** For more information about OSU Student Disability Services, please go to: http://sds.okstate.edu.

University Policy
Drop Policy
Information about university drop policy and dates is at this website:
http://registrar.okstate.edu/
To drop this course, contact the Registrar's office, (405) 744-6876, or drop through Banner Self Service, http://my.okstate.edu

Syllabus Attachment:
For more student resources, go to: https://academicaffairs.okstate.edu/content/resources-students

MSIS 5643 – Topic Schedule (Tentative – subject to change)

Topic	Book Chapter
Introduction to Databases, Environment and Architectures	1, 2 & 3
The Relational Model	4
Database Design and Fact Finding Techniques	10, 11
Entity-Relationship Models	12 & 13
Relational Algebra & SQL Data Manipulation	5 & 6
SQL Data Definition & Advanced SQL	7 & 8
Database Normalization	14 & 15
Conceptual & Logical DB Design	16 & 17
Physical Database Design – Transactions	22
Physical Database Design & Security	18, 19 & 20

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