CS/D SA 4513 - Database Management Systems – Section 001-Fall 2018
1:30 PM - 2:45 PM (Mon, Wed); Room 300 FELGAR HALL (FH)

INSTRUCTOR: Dr. Le Gruenwald; Office: 233 DEH, Tel. 325-3498; Email: ggruenwald@ou.edu;
Office Hours: 3:00 PM - 4:30 PM (Mon, Wed).

COURSE DESCRIPTION: This course concentrates on the concepts and structures necessary to
design and implement a database system. It is oriented towards the general principles, their
applications, and the relevant theoretical foundation. It does not devote any significant time to
discussion of specific commercial packages.

TEXT: Abraham Silberschatz, Henry Korth, and S. Sudarshan, Database System Concepts, 6th

PREREQUISITE: (CS 2413 or CS/D SA 5005) and (CS 2813 or CS/D SA 5005 or Math 2513)

PROJECTS: Projects will be due at the beginning of class (1:30 PM) on the specified dates. Projects
that do not meet this requirement will not be graded.

HOMEWORK: Homework will be assigned occasionally in class and will not be graded. Solutions
to the homework will be posted on the class home page. It is the students' responsibility to do the
homework and evaluate their solutions. Be warned that reading the solutions to the homework without
trying to work the problems yourself first is a very poor strategy and will almost certainly result in
failure on the tests.

GRADING:
Midterm Exam 20%
Final Exam 30%
Group Projects 25%
Individual Project 25%
No make-up exams or projects will be given. See the attached "Group Project Grading Policy" for
grading on group projects.

COURSE CONTENTS:
Topic Reading
1. Introduction - Basic Concepts of DBMS Ch.1 (Silberchatz)
2. Entity-Relationship Model Ch.7 (Silberchatz)
3. Relational Model and SQL Ch. 2, 3, 4, 5, 7 (Silberchatz)
4. File Organization, Indexing, and Hashing Ch. 10, 11 (Silberchatz)
5. Formal Query Languages Ch. 6 (Silberchatz)
6. Functional Dependencies and Normalization Ch. 8 (Silberchatz)
7. Evaluating and Controlling Technology Ch. 7 (Baase)
8. Query Processing Ch. 12, 13 (Silberchatz)
9. Information Security and Privacy Ch. 9 (Silberchatz), 2 (Baase)
10. Transaction Management and Database Recovery Ch.14, 16 (Silberchatz), 8 (Baase)

ABET STUDENT OUTCOMES: This course will be evaluated for the following ABET outcomes:
e) An understanding of professional, ethical, legal, security and social issues and responsibilities; and
g) An ability to analyze the local and global impact of computing on individuals, organizations, and
society.
ACADEMIC INTEGRITY:  Homework and Exam are individual work; they must be done by
you only – no collaboration with anyone else is allowed. Group Project and Presentation are group
work; they must be done by you and your assigned group members only – no collaboration with
other groups or anyone else is allowed. Plagiarism will result in action as specified in the Academic
Integrity Code at OU: http://integrity.ou.edu/files/Academic_Misconduct_Code.pdf. Consult also
the following web page for a Student's Guide to Academic Integrity at OU:
http://integrity.ou.edu/students_guide.html.

REASONABLE ACCOMMODATION POLICY: Students requiring academic accommodation
should contact the Disability Resource Center for assistance at (405) 325-3852 or TDD: (405) 325-
4173. For more information please see the Disability Resource Center website
http://www.ou.edu/drc/home.html. Any student in this course who has a disability that may prevent
him or her from fully demonstrating his or her abilities should contact me personally as soon as
possible so we can discuss accommodations necessary to ensure full participation and facilitate
your educational opportunities.

RELIGIOUS OBSERVANCE: It is the policy of the University to excuse the absences of students
that result from religious observances and to reschedule examinations and additional required
classwork that may fall on religious holidays without penalty.

ADJUSTMENTS FOR PREGNANCY/CHILDBIRTH RELATED ISSUES: Should you need
modifications or adjustments to your course requirements because of documented pregnancy-
related or childbirth-related issues, please contact me as soon as possible to discuss. Generally,
modifications will be made where medically necessary and similar in scope to accommodations
based on temporary disability. Please see www.ou.edu/content/eoo/faqs/pregnancy-faqs.html for
commonly asked questions.

TITLE IX RESOURCES: For any concerns regarding gender-based discrimination, sexual
harassment, sexual misconduct, stalking, or intimate partner violence, the University offers a
variety of resources, including advocates on-call 24.7, counseling services, mutual no contact
orders, scheduling adjustments and disciplinary sanctions against the perpetrator. Please contact
the Sexual Misconduct Office 405-325-2215 (8-5, M-F) or OU Advocates 405-615-0013 (24.7) to
learn more or to report an incident.