CMPS 520B-01, Spring 2024

DATA BASE MANAGEMENT

Instructor Osman Kandara (aka Dr. OK) **Office** E112, Henry Thurman Jr. Hall

Office Hours MW: 1:00pm - 4pm

TTh: 11am - 12:00noon OR 1:00pm-2:00pm

TTh office hours can be virtual. And other time by appointment!

Contact osman.kandara@sus.edu

Office: 771 - 3556 / Front Office: 771-2060

Cell: 225-200 - 4072

Time/Location 4:00pm – 4:50pm, MWF / Henry Thurman Jr. Hall, Room 206 **Text Book Database System Concepts.** *Seventh Edition*. Avi

Silberschatz, Henry F. Korth, and S. Sudarshan.

https://www.db-book.com/db7/slides-dir/index.html

Course Topics

This course will discuss data modeling, SQL, database application development, indexing, query optimization, transaction management and database design. Concepts of parallel databases, data warehousing and data mining will be covered.

Prerequisite: CMPS 420

Objectives/Student Learning Outcomes

Goals/Objectives:

- 1. To be able to explain basic file operations. (PEO 2)
- 2. To be able to analyze the exiting data structures and data models needed for a specific project. (PEO 1 and PEO 2)
- 3. To be able to understand the roles of a database administrator. (PEO 1 and PEO 3)
- 4. To be able to understand the importance of data integrity and reliability. (PEO 4)
- 5. To be able to predict the newly emerging database paradigms. (PEO 2)

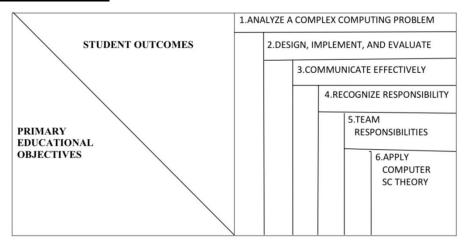
Learning Outcome:

After successfully completing this course, students will be able to:

- 1. Use the fundamental concepts in database management to assess the needs for real life projects. (SLO 1 and SLO 2)
- 2. Demonstrate proficiency in the use of database management skills. (SLO 4)
- 3. Identify the differences among the existing database models and choose the suitable one as needed. (SLO 6)

4. Be aware of the issues related to database management such as integrity, protection, security, etc. (SLO 4)

ABET Mapping:



| PEO 1: SUCCESSFULLY ENTER THE COMPETETIVE JOB MARKET OR PURSUE ADVANCED STUDY | х | х | х | х | х | х |
|--|---|---|---|---|---|---|
| | | | | | | |
| PEO 2: BE PROFICIENT IN IDENTIFYING, | | | | | | |
| FORMULATING, AND SOLVING WIDE RANGE OF COMPUTING PROBLEMS | x | | | | | Х |
| DEG 2: DE CADADIE OF WORKING | | | | | | |
| PEO 3: BE CAPABLE OF WORKING COLLABORATIVELY, COMMUNICATING EFFECTIVELY | | | | | | |
| WITH TEAM MEMBERS, CONSTITUENTS, AND THE PUBLIC | | х | х | | х | |
| PEO 4: UPHOLD PROFESSIONAL AND ETHICAL | | | | | | |
| RESPONSIBILITIES, AND CONTRIBUTE TO SOCIETY | | | | х | | |
| THROUGH ACTIVE ENGAGEMENT | | | | | | |

Student Learning Outcome (SLO) mapping for this course: 1, 2, 4, and 6.

Grading

Grading Scale $\begin{array}{c} A-90\% \text{ to } 100\% \\ B-80\% \text{ to } 89\% \\ C-70\% \text{ to } 79\% \\ D-60\% \text{ to } 69\% \\ F-<\!60\% \\ \end{array}$

Assignments/projects30%Midterm30%Attendance, participation,10%

quizzes, etc.

Final 30%

Exam Schedule (Tentative)

Midterm – During the midterm week as scheduled by the university.

Final — During the final week as scheduled by the university.

All exams are comprehensive and/or they can be in a form of class presentation or take-home focusing on senior undergraduate level research activities. Assignments can also be used in lieu of exams or as part of it.

There will be an assignment given almost every other week. Assignments will also be counted toward midterm and final exams.

Assignments submitted on time will also be counted toward class attendance.

Moodle will be used for all the class activities (for the class notes, topics to be covered/studied, assignment announcements and submissions, grading, etc.) Hence, students are expected to check their Moodle accounts frequently.

Guidelines

- 1. Due for an assignment is the next class day unless otherwise said.
- 2. NO due extension.
- 3. NO sharing (Punished severely!)

Copying is considered scholastic dishonesty and is covered in University policy. Cheating will be prosecuted both in terms of grading and University sanctions.

Any similarity ratio over 20% based on Moodle's Turnitin reports is subject to further investigation.

- 4. NO late submission (A late submission is worth ZERO!)
- 5. NO curving.
- 6. NO Phones of any kind during class time.
- 7. NO makeup exam. At the instructor's discretion, the student may be allowed to use the final exam or the other one to cover the missed one at a certain percentage.
- 8. Reading the relevant chapters in the text book and reviving the class notes for the current topic being discussed before and after the class is expected.
- 9. At any time without any advance notice, a short pop-up quiz should be expected. Those quizzes may also be considered as assignments or bonus points to the exams.
- 10. At any given time without any advance notice, a new homework/programming assignment/project might be given in the class or through e-mails. Even if you have to miss the class, you are still responsible for it. Instructor may choose certain assignments or certain questions in a particular assignment to grade instead of all.
- 11. For any given assignment/project, it is your responsibility to clarify ambiguous parts. Sometimes, certain things might be left questionable by intention to challenge you to think and to ask questions about them.
- 12. IT IS YOUR RESPONSIBILITY TO KEEP ALL THE GRADED MATERIALS GIVEN BACK TO YOU IN THEIR ORIGINAL FORMS UNTIL THE SEMESTER IS OVER AND TO PROVIDE WHEN ASKED.
- 13. All the graded materials will be discarded if they are not picked up within 3 days.
- 14. For all the questions regarding a particular assignment grade you got, you should contact to the instructor. It has to be resolved within 5 business days.
- 15. Graduate students might get more assignments and/or different ones
- 16. Any failure of the any equipment that you use to do/submit/print the assignment within the last 48 hours is NOT an acceptable excuse. You had better expect such a bad luck all the time and you should start right away.
- 17. The programming/assignment/project guidelines that will be given to you should be observed very seriously. Even if your work produces the right output, you will lose 30 to 50 percent of the total grade if the guidelines are not followed.
- 18. Students with documented disabilities who believe that they may need accommodations in this class are encouraged to contact the Disability Services Coordinator in the Office of Disability Services,

246 A.C. Blanks Hall, <u>225-771-3546</u> (Voice), <u>225-771-3949</u> (Fax), as soon as possible to ensure that such accommodations are implemented in a timely fashion. Students who need accommodations must be registered with the Office of Disability Services. Students are responsible for informing the instructor of any instructional accommodations and/or special learning needs at the beginning of the semester. All discussions will remain confidential.

Notices from the University

Well-Being of Students

Being successful in this course depends on many factors, including your personal well-being. As a student you may experience a range of stressors that can cause barriers to learning and impact your overall health. Some of these may include anxiety, stress, depression, past traumas, grief/loss, and poor relationships to cite a few. You are a priority and SUBR faculty, staff, and administrators are waiting to assist you during your academic journey to success. Please reach out to me if you are experiencing any type of difficulty that may hinder your success in this course. In addition, the University Counseling Center (UCC) offers CONFIDENTIAL inperson counseling/therapy for numerous concerns of enrolled students and their significant partners. To learn more about your Counseling Center (CC) visit www.subr.edu/counselingcenter or e-mail them at counselingcenter@subr.edu. You can also follow them @SUBR_Counselingcenter.

Student Learning & Licensure

Watermark Student Learning & Licensure (SLL) has replaced Live Text (\$98 fee included on your billing statement for first-time and transfer students). Semester tuition and fees must be paid for student access. Visit here for Student Learning & Licensure FAQs: https://www.subr.edu/page/student-learning-licensure-faqs.

For SLL assistance, please contact:
Chrisena Williams-Brown, MBA/TM
Associate Director of Planning and Assessment
Office of Strategic Planning, Policy, and Institutional Effectiveness
Room 208 Augustus Blanks Hall
Email: chrisena.williams@sus.edu Office Phone: 225-771-2274