

CSc 484
Spring 2024
Instructor:
Office Hours:

Database Management
3 Credits
Ken Gamradt
E-mail =>

South Dakota State University
SDEH 118
Office Location:
E-mail:
Course Home Page:

9:30 – 10:45 Tu Th
SDEH 136
ken.gamradt@gmail.com
<https://d2l.sdbor.edu>

Prerequisites:
CSc 300 (C or better)

References:
Database System Concepts – Silberschatz, Korth, Sudarshan – 7th edition – ISBN-13: 978-1260515046
NoSQL For Mere Mortals – Sullivan – 1st edition - ISBN-13: 978-0-13-402321-2

Course Description (SDSU Catalog):
The study of formalized database design. This course will focus on relational model design and the use of SQL. Students will use a modern relational database to implement designs and learn the basics of data management.

Course Goals:
The primary goal of this course is to introduce the students to the fundamental concepts of database systems, data manipulation, main techniques and methodology for database analysis and design, and use of database management systems (DBMS).

- ☐ IDEA Objectives: At the end of semester, students will complete the IDEA survey.
 - Gaining a basic understanding (factual knowledge, methods, principles, generalizations, theories) (Essential)
 - Learning to apply course material (to improve thinking, problem solving, and decisions) (Important)
 - Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course (Important)

Student Learning Outcomes:
A student who successfully completes this course should be able to:

- ☐ understand the purpose of the three-level database architecture and their mapping
- ☐ identify basic database management systems components
- ☐ understand the relational model
- ☐ use SQL for manipulating and defining data
- ☐ understand the main techniques for database analysis and methodology for database design and apply them in developing an application using database systems
- ☐ understand the basic mechanisms to protect the database against intentional or accidental threats
- ☐ understand the responsibility of Database Administration

Grading:
Your grade in this class will depend completely on exams and assignments. No individualized extra credit!!!

Exams	:	200 points	(Maximum)
Assignments	:	100 points	(Maximum)
Project & Presentation	:	100 points	(Maximum)
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Total		400 points	(Maximum)

Grades will be based upon: 90%-A, 80%-B, 70%-C, 60%-D, Below-F. An incomplete grade will only be given under extreme circumstances.

Exams:
All exams will cover the material and techniques that were discussed in class. All exams will be announced at least one week in advance.

Tentative Exam Dates:

March 7th (exact date TBD) – Exam 1 – **MUST** be taken at the scheduled time.

May 2nd – 11:30 to 1:30 pm – Exam 2 – **MUST** be taken at the scheduled time.

Attendance:

Students are responsible for all university scheduled class periods. It is the student's responsibility to obtain lecture material and assignments for class days missed. Students who miss class without a valid excuse should not expect individualized instruction for the missed material.

Missed Exams:

All students who must miss an exam **MUST** notify me in advance. Makeup exams will be given for documented Medical and University related reasons only. Makeup exams **MUST** be taken within one week of the original exam date otherwise **NO CREDIT** will be received. If a student receives **NO CREDIT** they will not be allowed to pass the course. All exams **MUST** be taken to have a chance of receiving a passing grade. Makeup exams may be alternative exams.

Assignments:

All assignments will cover the material and techniques that were discussed in class. All assignments are due at the beginning of class on the due date. No late assignments will be accepted. If you fail to submit an assignment you will earn 0 points for that assignment.

Independent Work:

All work in this course is to be done independently; there are no group projects. Duplicate or near duplicate assignments will receive 0 points; this includes using solutions from previous semesters as well as solutions found online. Whenever online material is used in your solution you must properly cite the relevant author and/or site. When duplicate work is found, all individuals involved will receive 0 points. Make sure that you do not allow access to your accounts on different machines on campus. It is your responsibility to stop others from copying your work!

Office Hours Policy:

My philosophy is to help you teach yourself how to fix your programs

I am not here to write your programs for you

```
do {                               // office hours general algorithm
    Step_1();
    Step_2();                       // if successful, exit the algorithm
} while (initial steps have not been exhausted);
Step_3();
```

Step 1: Send me an email message containing: a detailed explanation of your concern; a detailed explanation of what you have tried to resolve your concern; screen shots of code segments involved, ... ken.gamradt@gmail.com

Step 2: I will reply to your concerns as soon as I can

Step 3: If I feel it is necessary for us to meet face to face, I will invite you to either a Zoom session or my office

When I feel we need to meet face to face, I will only look at your code if I feel all other options have been exhausted
Do not come to my office and place your code and/or your laptop in front of me

Student Academic Integrity and Appeal:

The University has a clear expectation for academic integrity and does not tolerate academic dishonesty. University Policy 2:4 sets forth the definitions of academic dishonesty, which includes but is not limited to, cheating, plagiarism, fabrication, facilitating academic dishonesty, misrepresentation, and other forms of dishonesty relating to academics. The policy and its procedures also set forth how charges of academic dishonesty are handled at the University. Academic Dishonesty is strictly proscribed and if found may result in student discipline up to and including dismissal from the University.

ADA Statement:

Any student who feels s/he may need an accommodation based on the impact of a disability should contact Nancy Hartenhoff-Crooks (or successor) Coordinator of Disability Services (605-688-4504 or Fax, 605-688- 4987) to privately discuss your specific needs. The Office of Disability Services is located in room 065, the University Student Union.

Freedom in Learning Statemen:

Under Board of Regents and University policy, student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should contact the department head to initiate a review of the evaluation.