CSC 134 – Database Management Systems

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(Email through SacCT is preferred; Please include “CSC/CPE 134” at the beginning of the subject line)

Office Hours: Monday Wednesday 11:00-11:50am, 2:00-2:40 pm

Course Description
Introduction to database system concepts and architecture. Entity-relationship model; ER to relational mapping; Relational algebra; SQL; Functional dependencies and normalization for relational databases; Disk storage, basic file structures, and hashing; Indexing structure for files; Introduction to query processing and transaction processing.

Textbook
4. Elmasri and Navathe, Fundamentals of Database Systems, Addison Wesley, multiple editions work, such as 3rd, 4th, 6th, 7th Edition. (This textbook is suggested. 3rd, 4th, and 6th editions are available at Sac State University Library.)
The textbooks are meant to supplement lectures. Assignments and other artifacts are available through SacCT. Open educational resources will be provided to supplement lectures.

Prerequisite
This course requires satisfactory completion of CSC 130 or their equivalents. It is assumed that each student is prepared for this course and meets the following criteria. If not, then it may require outside preparation.

Prerequisite Proof (if the course has specific prerequisites listed above):
The Department of Computer Science has a policy that each instructor needs to verify the student transcript and ascertain that the student has the prerequisites. You can log on to My Sac State go to “Student Center” and select “Unofficial Transcripts” to print. You also can select
and print “Transfer Credit Report” if you have transferred from another institution. You must submit your transcript for verification. Any student who has completed one or more prerequisites at another school must provide similar verification to the instructor. Any student who has not submitted their transcript for verification by the end of the second week will be dropped from the class.

**Course Policies**

**Tentative Grading Policy (subject to change during the semester)**

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<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Note taking</td>
<td>15%</td>
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<tr>
<td>Home Assignments</td>
<td>20%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
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<tr>
<td>Midterm exam</td>
<td>20%</td>
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<tr>
<td>Final exam</td>
<td>30%</td>
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**Grading Breakdown (%)** *(I reserve the right to adjust the grading breakdown based on the overall performance of the class)*

- **A** = 93-100
- **A-** = 90-92
- **B+** = 87-89
- **B** = 83-86
- **B-** = 80-82
- **C+** = 77-79
- **C** = 73-76
- **C-** = 70-72
- **D+** = 67-69
- **D** = 63-66
- **D-** = 60-62
- **F** = 59 or below

Students are required to keep backup (machine-readable) copies of all submitted work, and also to keep all returned (graded) work, until after final grades are posted.

All the assignments will be graded with 100 as highest. The final scores will then be the weighted score, and rounded up to match the above scale. Please note that final score is not negotiable. Also, the highest grade in the university system is **A**. You will need a passing grade for all course exams to pass the whole class.

**Individual Work**

All the parts in this course should be accomplished independently!

Note: Specific instructions for home assignments, including the deliverable requirements and due dates, will be assigned in separate documents after corresponding lectures. **So, please make sure you get this important information in class or via SacCT/email.** Programming exercises will be graded for appearance, programming style and comments as well as for correctness. All output should be identified and illustrated, and the input used for any program should be listed and explained.

**Submission Rules**

Each submission needs to be in an electronic version through SacCT.

Electronic version submitted in ways other than SacCT, such as by email, will NOT be graded and will get a ZERO. Double check the correctness and the format of files before your submission. Email attachments with a new version with an explanation such as “I forgot to include file xxx in my submission, please do grading based on this attachment” or “please grade this attachment because I accidentally attached a wrong file format in my SacCT submission” will NOT be accepted.
Late Submission
All assignments are to be submitted by the assigned due dates. Late submission penalties are:

- Within 24 hours after the due date: 20% off the assignment grade;
- Within 24-48 hours after the due date: 50% off the assignment grade;
- After 48 hours: 0 for the assignment.

Exam
Make-up Exams ARE NOT GIVEN, except under EXTREME circumstances.

In case of medical emergency, 1) the student must inform the instructor BEFORE the exam by email AND by phone call (leave a message if the instructor is not in the office); 2) Bring a doctor's note that excuses the student from the activity of taking an exam in the given day; 3) the notes must be submitted to the instructor's department mailbox within the same week that the exam is scheduled. The instructor reserves the right to reject make-up requests. There will be no make-up for unannounced quizzes (if any) under any circumstances.

Laptop and Cell Phone Regulation
Laptop and cell phone can be used if necessary, but NO game, NO noise and NOT in the quizzes/exams! In any case, you are not allowed to disturb others in the classroom.

Other Course Policies
- Information in this syllabus is subject to change with notice.
- Be aware of the institution policy on drops and incomplete.

University or Department Policies

Repeat Policy
The department has a policy specifying that students may not repeat a computer science course more than once. Any student who wishes to repeat a course more than once (that is, take a course for a third time) must submit a petition requesting the permission to do so. Student records will be reviewed to determine whether a student is taking this course for three or more times. Any such student must return an approved petition to the instructor within the first two weeks of class. Any student who does not submit an approved petition will be dropped from the class. Petitions are available in the department office (RVR 3018) and require the signature of both the instructor and the department chair.

Drop Policy
If you plan to drop this course, please make sure you understand the following information.

- **There is no such thing as an “automatic drop”**. The instructor can drop you from the course, but this does not happen automatically. If you plan to drop the course, make sure to use MySacState.
- After the 2nd week, you **cannot** drop the course through MySacState. At this point, you must provide written verification of a compelling reason. Both the instructor and the Department Chair must approve.
• After the 4th week, you must fill out a “Petition to Drop after Deadline” form and collect all
the necessary signatures. This must be turned into Admission and Records in Lassen Hall.

Students with Disabilities
If you have a disability and require accommodations, you need to provide disability
documentation to SSWD (Services to Students with Disabilities), Lassen Hall 1008, (916) 278-6955. Please discuss your accommodation needs with me after class or in lab early in the
semester.

Ethics/Academic Honesty
Any work submitted is a contractual obligation that the work is the student's and for which
he/she could be quizzed in detail. Discussion among students in assignments and projects is
part of the educational process and is encouraged. No discussion among students is allowed in
any exams/quizzes. However, each student must make an effort to do his/her own work in all
assignments and exams. No type of plagiarism will be tolerated except in the case of group
work. In that case each student should indicate the part of the work, which was their major
responsibility in their final joint submission. Nevertheless, I emphasize any work submitted is a
contractual obligation that the work is the student's and for which he/she could be quizzed in
detail. The minimum penalty for even a single incident of cheating brought to the
attention of the instructor in this course is automatic failure of the course; additional more
severe penalties may also be applied. Note that cheating is grounds for dismissal from the
University.

Please refer to the Computer Science Dept. document entitled “Policy on Academic Integrity”
(available online via the Computer Science department, www.ecs.csus.edu/csc home page)
and to the University Policy Manual section on Academic Honesty (all available online via the
instructor's home page. Please visit http://www.csus.edu/admbus/umanual/UMA00150.htm for
additional information. It is the responsibility of each student to be familiar with, and to comply with, the policies stated in these documents. In addition, unless otherwise stated, the use of the following devices during exams/quizzes is prohibited: cell phones, pagers, laptops, and PDAs.

Turnitin
Consistent with Sacramento State’s efforts to enhance student learning, foster honesty, and
maintain integrity in our academic processes, instructors may use a tool called Turnitin to
compare a student's work with multiple sources. The tool compares each student's work with an
extensive database of prior publications and papers, providing links to possible matches and a
'similarity score’. The tool does not determine whether plagiarism has occurred or not. Instead,
the instructor must make a complete assessment and judge the originality of the student's work.
All submissions to this course may be checked using this tool.

Students should submit papers to Turnitin assignments without identifying information included in the paper (e.g. name or student number), the system will automatically show this info to faculty in your course when viewing the submission, but the information will not be retained by Turnitin.
# CSC/CPE 134 - *TENTATIVE SCHEDULE SUBJECT TO CHANGE*

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPICS</th>
<th>Reading</th>
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| 1    | Database system concepts and architecture | Watt&Eng. Chapter 1, 2, 3 & 14  
Courtney et al. Chapter 1, 2 & 12  
Elmasri and Navathe Chapter 1 & 2 |
| 2-3  | Entity-Relationship model | Watt&Eng. Chapter 4 & 8  
Gould Chapter 1 & 2  
Courtney et al. Chapter 3  
Elmasri and Navathe Chapter 3  
Other Open Educational Resources:  
https://learn.saylor.org/course/view.php?id=93&sectionid=958 |
| 4-5  | Relational data model and constraints | Watt&Eng. Chapter 7, 9, 10  
Gould Chapter 4  
Courtney et al. Chapter 4  
Elmasri and Navathe Chapter 5 |
| 6    | ER to relational mapping | Elmasri and Navathe Chapter 9  
Other Open Educational Resources:  
| 7-8  | Relational algebra | Courtney et al. Chapter 6  
Elmasri and Navathe Chapter  |
| 8    | Midterm exam | Watt&Eng. Chapter 15 & 16  
Gould Chapter 6, 7, 8, 9 & 10  
Courtney et al. Chapter 7 |
| 9-11 | SQL | Watt&Eng. Chapter 15 & 16  
Gould Chapter 6, 7, 8, 9 & 10  
Courtney et al. Chapter 7 |
| 12-13 | Normalization | Watt & Eng. Chapter 11 & 12  
Gould Chapter 5  
Courtney et al. Chapter 5  
Elmasri and Navathe Chapter  
Other Open Educational Resources:  
http://phlonx.com/resources/nf3/#nf1 |
|-------|--------------|--------------------------------------------------|
| 14    | Disk storage and basic file structures | Watt & Eng. Chapter  
Courtney et al. Chapter  
Elmasri and Navathe Chapter |
| 15    | Indexing structure for files | Watt & Eng. Chapter  
Courtney et al. Chapter  
Elmasri and Navathe Chapter |
| 16    | **Final Exam:** TBD by College Official  
**Final Exam Schedule** | |