Database Management Systems - BCIS 475/595, Spring 2014, Monday & Wednesday 2:30-3:45 p.m.
Instructor: Jennifer Kreie
Classes: MW 11:30-12:45, BCIS 350/540 in GU 303
MW 2:30-3:45, BCIS 475/580 in GU 303
TR 11:45-1:00, BCIS 485/560 in BC 115
BCIS 475/580 online
Office: Guthrie 318
Office phone: 646-2990
Email through Canvas.
My web page: http://web.nmsu.edu/~jkreie
Canvas: http://learn.nmsu.edu/

Schedule an appointment:
http://meetme.so/jkreie

Office Hours:
Monday: 8:30-10:00 (Classroom: GU 303)
Thursday: 1:30-3:30 online/face-to-face (Adobe Connect/GU 318)
or by appointment for online or face-to-face

You’re welcome to drop by my office or the computer classroom during office hours. You can drop by outside my office hours, too. If I have time, I’m happy to meet with you.

If you want to make an appointment, you can do so at:
http://meetme.so/jkreie
For appointments, I have also listed time on Fridays even though I don’t have office hours. You can request an appointment on Fridays and if I’m available that particular day we can meet.

Textbook. Database: Design, Application Development, & Administration, current edition: 4th, M. V. Mannino, McGraw-Hill Irwin. The textbook uses two databases for which scripts will be available online in this course. One database is the basis for chapter examples and the other is used for end-of-chapter problems.

Note: If you buy an older edition, the sequence of a few chapters will be somewhat different but the content and examples remain pretty much the same. A copy of the textbook is in the BC lab and available for use while you’re in the lab. (This book was paid for by a donation from one of our graduates.)

Software. Some software required for this course is available for you to install on your PC with the Windows operating systems. The software used in this course is available in the BC lab (3rd floor) and in the computer classrooms (rooms which are only available during class time or my office hours, if I have scheduled a computer classroom) and for remote connection you can connect to a terminal server via Remote Desktop Connection if you have a computer with the Windows operating system. Software that you can install: Oracle SQL Developer (version 3.2.20.09, preferably, but you can probably use a more recent version). You will use the Oracle software to connect to an Oracle educational server maintained in this college.

The Oracle software is available at the Oracle web site (links are provided in Canvas) and it is free to download and install. You may have to create an account at Oracle’s TechNet site prior to downloading. There is no charge for joining TechNet.

We may use Oracle APEX (Application Express) later in the semester. This is a browser-based developer tool for web-based applications that use an Oracle database. You will be able to use any of the more commonly used browsers to connect APEX on the college Oracle educational server.

Course Description. This course teaches database concepts with a focus on relational databases. This course covers concepts about building, managing, and using databases and includes extensive coverage of SQL (structured query language), the standard language of relational databases. The coverage of SQL will include DDL (data definition language) used to construct a database, DML (data manipulation language) used for basic and advanced queries and embedded SQL in procedural programming languages for applications that must interact with a relational database. This course will also introduce database management concepts that deal with managing users and physical storage (DCL = data control
Data warehouses and data mining will be covered and current topics, such as big data and noSQL will be discussed. Prerequisite: BCIS 350/540 with a grade of “C” or better.

Course Objectives. The student who completes this course should know:

1. The features of database management systems, such as Oracle and Microsoft SQL Server.
2. Relational database concepts, such as 1st, 2nd, and 3rd normal form, and referential integrity.
3. SQL—the standard language of relational databases. Some Oracle-specific SQL commands will also be covered.
4. Query formulation - How to read a data model and design a query.
5. How embedded SQL is used in a procedural language (PL/SQL) for data processing. An introduction to PL/SQL will be covered.
6. Basic DBA activities to manage a relational database—manage physical storage, create databases, manage user accounts.
7. The purpose of data warehouses and data mining.
8. Professional codes of ethics and ethical issues related to data.
9. Current topics, such as big data and noSQL.

Examinations. There will be three exams. Each exam will be given on campus or must be proctored. Students enrolled in a distance education section but who within 75 miles of campus must take their exams at NMSU main campus while those further than 75 miles from campus must find and register their own proctors no later than one week prior to each exam. Instructions for scheduling a proctored are provided in the online course material.

The exams will cover material in handouts, online resources, assignments and videos. Exams will be a combination of multiple choice, SQL problems, and short answer (fill-in-the-blank). You will be able to have some printed material to reference during an exam. Details for this will be discussed prior to an exam. You will not be allowed to use online or digital resources during an exam.

If you miss an exam due to illness, work, or a university-sponsored activity, you must provide proper notification to the instructor as soon as possible. If no valid excuse is provided the student will receive a score of zero for the missed exam.

Assignments and Quizzes. Assignment exercises will be assigned as individual work unless otherwise specified by the instructor. Students are expected to submit their own work. You are free to discuss assignments with other students but do not give out SQL solutions or copy code from someone else. Feel free to use the online course discussion section to ask questions and post responses. It is OK to post code snippets to illustrate what is generating an error message but don't post an SQL solution to a problem. It is helpful to post screen shots of errors messages to help clarify problems you encounter. I encourage you to respond to other students' questions posted in the online discussion area.

Don't copy/paste someone's work and present it as your own. Submission of someone else's work as one's own will result in a zero for that assignment. See the section on scholastic dishonesty for further penalties.

The SQL assignments provide hands-on practice that is essential to learning the material. Several databases besides the ones provided by the textbook will be used throughout the course. Many of the practice problems and assignment problems will mirror examples given in the textbook or the problems listed at the end of the chapter but the assignments will usually use different databases than those presented in the textbook. It is recommended that you type all the chapter examples to practice the SQL commands. One of the benefits of this textbook is that Mannino provides numerous SQL examples and example output. The only way to master this material is to practice writing SQL.
Most assignments will be accepted late up to one day late with a late penalty of 10%. Note: An assignment due at the beginning of class will have a 5% penalty if it is turned in at any time later that same day. Details about an assignment online will indicate if it is accepted late.

Quizzes will not be accepted late.

**Graduate Students.** Graduate students will complete an extra module for this course to receive credit for BCIS 595. This module will be posted mid-semester.

**Communication With Instructor.** Discussion threads will be available in Canvas for questions regarding course material. Post questions about assignments and course material in the discussion threads so everyone can benefit from questions and answers. Do not send individual emails about course materials and assignments. I will respond as quickly as possible, usually within 24 hours except on Saturdays. For personal questions related to this course, send email through Canvas, NOT regular NMSU email.

I have office hours that can be face-to-face or online. You'll find a hyperlink to Adobe Connect in Canvas for this course. If office hours are scheduled in a computer classroom, we meet face-to-face.

**Study and Participation.** The nature of this course and its format requires that you stay up-to-date with the schedule and actively participate--read material, ask questions (in class or online), and complete assignments on time. The format of this course for students in a face-to-face section is that students prepare for class by reading assignment material and viewing videos. Class time will usually be devoted to discussion, practice and, if time permits, work on assignments. Don't assume you can complete all assignments during class. Begin work on assignments with ample time to complete the work, including posting questions and receiving answers. Students in the distance education section are welcome to attend class if they are within driving distance.

**Email Communications.** Your NMSU email account is the official means of communicating with the university. Information critical to your success at NMSU is delivered to you via this account, and you are expected to follow rules and policies provided to you via this communication method.

Any email from you regarding this course to the instructor should be sent either through the CANVAS course management system.

Please be advised that due to privacy and security concerns, we are unable to respond to emails from or about students that do not originate from within Canvas or an official NMSU email address.

**Notice Concerning Disabilities and Discrimination.** Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) covers issues relating to disability and accommodations. If a student has questions or needs an accommodation in the classroom (all medical information is treated confidentially), contact:

Trudy Luken, Director, Student Accessibility Services (SAS); Corbett Center, Rm. 244
Phone: (575) 646-6840 -- E-mail:sas@nmsu.edu
Website: www.nmsu.edu/~ssd/

NMSU policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status.

Furthermore, Title IX prohibits sex discrimination to include sexual misconduct, sexual violence, sexual harassment and retaliation.
For more information on discrimination issues, Title IX or NMSU's complaint process contact:
Gerard Nevarez, Executive Director or Agustin Diaz, Associate Director
Office of Institutional Equity (OIE); O'Loughlin House
**Phone:** (575) 646-3635 -- **E-mail:** equity@nmsu.edu
**Website:** [http://www.nmsu.edu/~eeo/](http://www.nmsu.edu/~eeo/)

**Academic and non-academic misconduct.** The Student Code of Conduct defines academic misconduct, non-academic misconduct and the consequences or penalties for each. The Student Code of Conduct is available in the NMSU Student Handbook online: [http://deanofstudents.nmsu.edu/student-handbook/1-student-code-of-conduct/](http://deanofstudents.nmsu.edu/student-handbook/1-student-code-of-conduct/)

Academic misconduct is explained here: [http://deanofstudents.nmsu.edu/student-handbook/1-student-code-of-conduct/3-academic-misconduct.html](http://deanofstudents.nmsu.edu/student-handbook/1-student-code-of-conduct/3-academic-misconduct.html)

**Plagiarism.** Plagiarism is using another person's work without acknowledgment, making it appear to be one's own. Intentional and unintentional instances of plagiarism are considered instances of academic misconduct and are subject to disciplinary action such as failure on the assignment, failure of the course or dismissal from the university. The NMSU Library has more information and help on how to avoid plagiarism at [http://lib.nmsu.edu/plagiarism/](http://lib.nmsu.edu/plagiarism/).

**Point Distribution and Grades.** The points possible for this course will be approximately as follows:

<table>
<thead>
<tr>
<th></th>
<th>% of Overall Grade</th>
</tr>
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<tbody>
<tr>
<td>Exam 1</td>
<td>15%</td>
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<tr>
<td>Exam 2</td>
<td>20%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td>Quizzes</td>
<td>10%</td>
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<tr>
<td>Assignments</td>
<td>35%</td>
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</tbody>
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Grades will be assigned as follows:
- 98% through 100%: A+
- 92% through 97.9%: A
- 90% through 91.9%: A-
- 88% through 89.9%: B+
- 82% through 87.9%: B
- 80% through 81.9%: B-
- 78% through 79.9%: C+
- 72% through 77.9%: C
- 70% through 71.9%: C-
- 60% through 69.9%: D
- below 60%: F