## INSTRUCTOR

<table>
<thead>
<tr>
<th>Name</th>
<th>Linqiang Ge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>CWH Room 211</td>
</tr>
<tr>
<td>Office Phone</td>
<td>229-931-2114</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:Linqiang.ge@gsu.edu">Linqiang.ge@gsu.edu</a></td>
</tr>
<tr>
<td>Office Hours</td>
<td>10:00AM – 11:00 AM, M,T,W,Th (or by appointment)</td>
</tr>
<tr>
<td>Skype ID</td>
<td>Linqiang.ge (online meeting or discussion)</td>
</tr>
</tbody>
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## TEXTBOOK

<table>
<thead>
<tr>
<th>Title</th>
<th>Database Systems: Design, Implementation, and Management, 12th Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Coronel, Morris &amp; Rob (2015)</td>
</tr>
<tr>
<td>Publisher</td>
<td>Course Technology</td>
</tr>
<tr>
<td>ISBN</td>
<td>9781305627482</td>
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## COURSE OVERVIEW

Course: CSCI 6410: Advanced Database Design: This course will discuss emerging advanced database technology to expose and prepare the students with currently practiced database tools such as web based database application development, object oriented database design, data warehousing, data mining, distributed databases. Prerequisite: CSCI 4400. (3-0-3)

This course will study more advanced features of databases in design, administration, and applications. Topics include advanced data modeling and design, implementation, database scripting, database transaction, database security, database maintenance, and data warehouse.

## REQUIREMENTS

You are expected to have following environment to progress smoothly and successfully in the course:

- A laptop/desktop computer with Windows Operating System
- Reliable Internet access using browsers such as Explorer 8.0 or higher, latest version of Firefox 2.0, Java installed, and pop-up blocker turned off.
- Microsoft Office 2013 (Must include Word, Excel, Access, and PowerPoint) installed on your laptop
- Access to the GeorgiaVIEW to go to the course resources.
- You must have TEXTBOOK (mentioned above)
- Storage Devices: You must have one 1GB (or higher) USB Portable Storage Device
COURSE OBJECTIVES
To prepare the students with skills needed to use advanced database techniques for designing business applications. Gain experience in emerging trends like Web based database application development, Object Oriented Database design, Data warehousing, Distributed Databases, etc. Hands-on experience with the application development tools suitable with the current technology.

Students completing this course should be able to:
1. Write efficient database transactions
2. Design and create data warehouse databases, distributed databases, and OODB
3. Design and develop e-commerce applications in ColdFusion
4. Apply the techniques of application performance improvement
5. Perform database administration
6. Explore further advanced topics in database.

COURSE OUTLINE
Following topics will be discussed in the course work.
1. Chapter 10 - Transaction management
2. Chapter 11 - Database Performance Tuning and Query Optimization
3. Chapter 14 - Database Connectivity and Web Development
5. Appendix J - We Database Development at http://www.cengagebrain.com
6. Chapter 12 - Distributed Database Management System
7. Chapter 13 - The Data Warehouse
8. Chapter 15 - Database Administration

EVALUATION
<table>
<thead>
<tr>
<th>Labs and Assignments</th>
<th>35 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term Project</td>
<td>25 %</td>
</tr>
<tr>
<td>Two Tests</td>
<td>40%</td>
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GRADING POLICY

<table>
<thead>
<tr>
<th>Marks</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90 - 100</td>
<td>A</td>
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<tr>
<td>80 - 89</td>
<td>B</td>
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<tr>
<td>70 - 79</td>
<td>C</td>
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<tr>
<td>60 - 69</td>
<td>D</td>
</tr>
<tr>
<td>Less than 60</td>
<td>F</td>
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ASSIGNMENTS and LABS
Database related tasks will be assigned throughout the semester to give students hands on experience solving advanced database problems. We will also complete a number of labs during the semester. All assignments are due at the assigned time on GeorgiaView. All work should be thoroughly backed up before turning it in and all submissions should be well documented giving credit to respective sources with proper citations.

All assignments will be posted under Assignments on GeorgiaVIEW with due dates for each assignment. Assignments are due on or before due date. All assignments are to be
submitted in GeorgiaVIEW. You can submit your assignment in Word document. If your assignment consists of multiple files, then create a folder with all the files and zip the folder. Then submit the ZIP file. No late assignments will be accepted.

Add a cover page to each assignment. The cover page must clearly mention your name, course number, name of the subject, assignment number, due date and date submitted.

TESTS
Tests are online. You must come to the class for the test or at a predetermined testing center. You must take the test on a prior declared date. Under no circumstances the tests will be given again if you miss. No request for tests to be given earlier or later will be granted. Dates and time of test will be announced at the course site (under Tests/Quizzes).

The Calendar will be used to announce important events. Please check the Calendar periodically.

GAVIEW SUPPORT
The GAVIEW will be the platform for us to interact, post discussions, and submit assignments. You will regularly login to GAVIEW to get course related information. Announcements will be made here. Reminder for Assignments, Quizzes, and Tests will be announced here. You will be able to chat with me.

Please note:
1. Always logout after you are finished using GeorgiaVIEW and log off your computer after every virtual lab session (don’t leave your session sleeping for a long time).
2. DO NOT use GaVIEW to send me email. Please use your Radar account.

Students with documented disabilities
“A student requesting classroom accommodations or modifications due to a documented disability must notify me within the first two weeks of the semester. If the student has not already done so, he or she must contact the Office of Student Support Services located in room 304 of Sanford Hall. The phone number is 229-931-2294.”

Communication with students
The student’s GSW email account is the official method of communication between them and the university. So it is crucial that you check your email frequently. In addition to this, it is expected that students check their email in GeorgiaVIEW. Course related information will be communicated through this email also.

Attendance Policy
Attendance will be taken in every class session. Students are expected to attend all sessions of this course. In the event of an absence, written documentation regarding the absence is requested by the instructor in order to make up any missed work during the absence.

Online students are expected to login to GAVIEW at least three times per week and participate in discussions, check email and calendar, download assignments, and take quizzes/tests. Activity will be monitored weekly.
Make-Up work

If a student misses any assignment or scheduled test/quiz, he or she will receive zero points for that assignment or test/quiz, except for documented emergencies. Excused absentees will be allowed to make-up the test by arrangement with the instructor. All excused absences MUST be documented (e.g. by a doctor). No exceptions PLEASE. Questions on the Make-Up tests may not be same as regular scheduled tests.

Academic Integrity Policy

Dishonest work will be treated as a serious offense by the faculty and administration of Georgia Southwestern. Multiple infractions may be cause for permanent expulsion from the University. Students at Georgia Southwestern State University are expected to conform to high standards of intellectual and academic integrity. Each Student at Georgia Southwestern State University is preparing for a job in a very competitive job market and is paying for this education. Obviously, everyone wishes to get their money's worth, however, if a student decides to cheat himself by cheating on a quiz, assignment, or exam, the following procedure will be followed: On the first instance, the student will be referred to the Dean of School of Computer and Information Science for immediate action. The student may receive a Zero on the assignment or exam, "F" in the course, and/or be expelled from the University.

Note: Copying information from another student's disk is considered cheating and is punishable by the above procedure. Similarly allowing other student to copy your work is also considered cheating and is punishable by the above procedure.