CS 3550 Spring 2017 Course Syllabus

Instructor: Drew Weidman

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(this email is best -

Canvas messages will likely not be responded to)

Office Hours: Office TE110H

MW 8:30 - 9:30 AM, 1:30 - 2:00 PM

TTh 11:30 AM - 12:30 PM

Text: There is no required textbook for this course.

Online reading and viewing will be assigned throughout the semester, primarily from

Weber State's Safari Books Online.

Many of the online textbooks are also available for purchase in hardcopy if desired.

Pluralsight videos may also be used as a resource.

Software: SQL Server 2014 Express with Tools

MongoDB

(note that the Athena Terminal Server will also have the required software installed)

Since much of this class relies on in-class discussion, you will be graded on your

Attendance attendance. Your participation in discussions is vital to the success of the class and your

learning the topic.

Course Objectives:

Students will build upon the basic database knowledge and skills gained in the introductory database course. Advanced database knowledge will be gained through the

design and implementation of an enterprise-level database. Students will perform application development using database programming techniques such as stored procedures, user defined functions, cursors, triggers, and distributed queries. Various database paradigms will be used in the course including PDPMS and NeSOI.

database paradigms will be used in the course including RDBMS and NoSQL.

Prerequisite: CS 2550.

Students with Disabilities:

Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 181 of the Student Services Center. SSD can also arrange to provide course materials (including this syllabus) in

alternative formats if necessary.

Course Fees: Course fees for the Computer Science major are designed to cover the costs of lab equipment maintenance and replacement including desktop and server computer systems and software; consumable materials and supplies; and support for lab aides, student tutors, and online instructional resources.

Allocated Time:

You should anticipate spending two to four hours of study per week for each credit hour of a university course. Computer and programming classes typically require time in the upper range. This is a 4 credit hour class, so you should expect to spend 12-16 hours of outside effort toward this class each week.

Assignments:

Students will complete individual weekly assignments in addition to working in teams on larger project assignments. The assignments are to be turned in via Canvas.

Late Policy:

Late assignments will be accepted with the following penalties:20% per day. So after 5 days, the assignment will not be worth any points

System **Accounts:**

Each student will be given an account on the CS Terminal Server and on the CS Titan SQL Server.

Grading:

| | Points | Approximate Contribution |
|-------------|--------|-----------------------------|
| Assignments | | 90% |
| Attendance | | 10% |

Online

Online participation is not required in this course, but is strongly encouraged. Learning **Participation:** outside class is facilitated through online communication with other students. This is your opportunity to converse with other students to ask questions about the assignments and topics in this class. When I have had students who have participated frequently in the online discussions, those classes have been much better... better understanding, better class discussion, better understanding of the topic at hand

> Team projects will especially benefit from online discussion throughout the weeks of the semester.

Changes to **Syllabus**

The instructor reserves the right to make changes/additions to the syllabus and will notify all students present in class of any such changes/additions

Cheating **Policy:**

Open collaboration on assignments is allowed in this course. Currently enrolled students may converse and work together on assignments in person or electronically, but each

student should turn in his/her own version of the assignment.

It WILL NOT be considered cheating if CURRENT students share information about the assignments.

It WILL be considered cheating if CURRENT students copy all or part of another student's assignment UNLESS the two students originally worked together to complete the assignment and it is known to the instructor that they worked together.

It WILL be considered cheating if CURRENT students obtain information about the assignments or exams from PAST students.

Exams must be a solo effort. ANY communication with other individuals, students or otherwise, in person or electronically IS CHEATING and appropriate penalties will apply.

Plagiarism (representing someone else's work as your own) is cheating.

CS Department policy dictates that any verifiable evidence of student academic cheating, as defined and determined by the instructor, will result in: 1) an automatic failing grade for the class and 2) a report to the Dean of Students that will include the student's name and a description of the student's dishonest conduct.

Letter Grades:

$$Total >= 94\%$$
 ... A $74\% <= Total < 77\%$... C $90\% <= Total < 94\%$... A- $70\% <= Total < 74\%$... C- $87\% <= Total < 90\%$... B+ $67\% <= Total < 70\%$... D+ $84\% <= Total < 87\%$... B $64\% <= Total < 67\%$... D ... D- $77\% <= Total < 80\%$... C+ $Total < 60\%$... F

Incompletes can only be given in extraordinary circumstances.

Schedule:

You will be reponsible for all material in the assigned Reading and Videos

| Week | Reading Assignments | Topic | Assignments |
|------|---------------------|--|-------------|
| 1 | | Course Introduction Database Knowledge Review and Pre-Quiz | Pre-Quiz |
| 2 | | Database Design Conceptual Design | TBA |

| 3 | Database Systems - Ch 4 | Logical Design Normalization | TBA |
|----|--|---|-----|
| 4 | Beginning SQL Server Chapters 1 & 2 | SQL Server Installation, Configuration and Use SQL Server Management Studio | TBA |
| 5 | Beginning SQL Server Chapter 3 | Physical Design Database Implementation - SQL DDL | TBA |
| 6 | Beginning SQL Server Chapter 10 | Advanced SQL DML INSERT, UPDATE, DELETE Transactions, Concurrency and Locks | ТВА |
| 7 | Beginning SQL Server Chapters 13, 14 & 18 | Views and Stored Procedures Functions and Triggers | TBA |
| 8 | Beginning SQL Server Chapter 17 | Complex SELECT Statements | TBA |
| 9 | Various Resources | Team Design and Implementation | TBA |
| 10 | Various Resources | Team Design and Implementation | TBA |
| 11 | Various Resources | Team Design and Implementation | TBA |
| 12 | Various Resources | Alternate Database Paradigms | TBA |
| 13 | Teach Yourself NoSQL | NoSQL - MongoDB | TBA |
| 14 | Teach Yourself NoSQL | NoSQL - MongoDB | TBA |