IS 675 - Database Design and Implementation
Graduate Course Requirements

Objective

IS 675 is the graduate course component of IS 475. To register for IS 675, you must be enrolled as a graduate or graduate-special student at the University of Nevada, Reno. The objectives for IS 675 are fundamentally the same as those given in the course syllabus for IS 475. As stated in the syllabus, the course focuses on "how" to perform database design and implementation tasks. The primary difference for the graduate component is that graduate students are expected to explore course topics in more depth so that they understand "why" the activities performed during design and implementation are done.

Requirements

Graduate students are expected to complete all required coursework as stated in the IS 475/675 syllabus, except the design and implementation project. A graduate project will replace the design and implementation project (15% of your grade for the course).

You have three choices for the graduate project:

(1) Complete the undergraduate project and add at least two triggers and three stored procedures to the project. It will be up to you to define appropriate triggers and stored procedures for the project application. You must include in the design report (a design report is also required for the undergraduate project) an explanation of the purpose of the triggers and stored procedures. The design report will also include user interface design and processing design for the application.

(2) Complete a project of your own. The project must be large enough in scope to be considered acceptable as a graduate project. If you elect to complete a practical project, the project must go beyond the scope of the design and implementation tasks completed for the undergraduate projects. You might consider creating a database by integrating the contents of publicly available databases, such as data from the census or other governmental agencies.

(3) Write a paper. Possible topics for a paper include (but are not limited to): New technologies for database, NOSQL databases, databases for big data, the limitations of current data modeling methodologies, issues in data warehousing, performance issues in web-based databases, issues related to using database in the cloud, quality assurance for database design, database integrity issues, or issues in database administration. This is a business information systems class, so I expect your paper topic will be related in some way to business databases. It will not be acceptable to submit a paper that exclusively discusses database issues relevant only to computer science or computer engineering such as an evaluation of query optimizer algorithms.

The time line for the graduate project deliverables is as follows:

02-19-15	First draft of **explanatory statement**. The explanatory statement should describe in detail the objective of the project and the deliverables from the project. If it is a practical project, then you should describe the purpose of the application. If it is a paper, then you should identify your topic via a thesis statement and define a few questions about the topic you plan to answer in the paper. The complete explanatory statement should be 1/2 to 1 page in length. You **MUST** make an appointment and meet with me before submitting the statement. You are responsible for setting up a meeting day and time with me prior to this date to discuss your project/paper.
03-03-15	Finalized draft of project or paper explanatory statement. If I wrote "good," "OK," or "acceptable" on your first draft, then there is no need to turn in a finalized draft.
04-14-15	Bibliography of paper or complete design specifications of project. I expect a complete bibliography of all intended resources if you are doing a paper. You must have at least 10 references and at least 4 of those references must be peer-reviewed journals rather than trade publications. If you do not know the difference between a peer-reviewed journal and trade publication, please see me for assistance. If you are doing a project, then the design specifications include database design, user interface design, and processing design.
05-11-15	Final version of paper or project. Graduate students are not required to turn in the second deliverable for their project; graduate students are encouraged to work on their projects with personal milestones.