Due Dates (Tentative):
Final Report: Due at demonstration time
Demonstrations:
(Early demos - bonus points) Week of Nov, 5, 2007,
(Regular demos) Week of Nov. 12, 2007.
(Late demos - penalty points) Week of Nov. 19 2007.

In this project you will design and implement a database application. You will work in
groups of three students. The project is carried out in Two main steps:

1. Conceptual design using the E-R model. Translation of the E-R model into the rela-
tional model. Refinement of the design (into at least 3NF schemes, preferably BCNF
or 4NF schemas).

Your preliminary report should cover this step of the project.

2. Implementation: Creation of database tables, data entry, design and implementation
of queries, transactions, and (web-based) interface.

Your final report should contain (1) The final ER design, (2) The final
relational design, including listing of all tables (schemas), keys, and data
dependencies, (3) Data (current at demo time), (4) Queries and application
programs. (5) You should also indicate, for each member of the group,
which parts/tasks were implemented by that member.

Each team will demonstrate their project online. All members of the team should
be present at the time of demonstration.

THE PROBLEM:
You are to design and implement a simple database application for “course advising” for
Computer Science MS students.
These are some of the queries and transactions your system should provide:

1. Queries:

   (a) Given a student, display his/her transcript.

   (b) Given a student, list remaining program requirements in a convenient format.
(c) Given a student, list courses for the student to take for Fall and Spring semesters. Note that regular courses are in the university “course schedule”. However, courses such as project (CSC 698), thesis (CSC699), and “independent study” type courses (such as CSC 593 and CSC 697) may not be in the schedule, but can be added.

2. Transactions:

(a) Add student information (including courses, grades, exemptions, thesis/project/exam option, etc...). You should provide two options (1) typing the information, one course at a time, and (2) providing an ASCII file that contains the information in a specific format (maybe as XML).

(b) Add course schedule information. Again, provide two options as above.

(c) Provide/update program information (such as required courses, prerequisite information, etc...).

3. Extra credit.

(a) To be determined!

Each group will demonstrate their system. All members of the group shall be present for the demonstration.