

## **MS-483 Database Management Systems Design Project**

Work in pairs (groups of 2 people) for this assignment. The objective is to analyze, model, design and implement a database for a problem domain of your choosing. If you cannot decide on a domain, use the familiar University Scheduling problem domain (Students register for Courses; Instructors are assigned to teach Courses; etc.). Be sure that your domain has several entities (i.e. tables) with at least one of each type of relationship (i.e. 1:1, 1:N, N:M).

### **Due Thursday, September 29, 2005: Domain Description**

Describe a domain for your database. The domain description should identify potential entities and relationships. Also identify potential sources for data in your database (do you have it in your possession, will it be collected, can it be found on the web, etc.).

### **Due Thursday, October 6, 2005: Data Model**

Use one of the graphical data modeling tools (ERwin, Dia, Visio, etc.) to draw a data model for your domain. Use the “crows feet” style diagram (as is used in the textbook) to represent your model. Also write up a description of your diagram so that all features of the model are described in words as well as symbols. In other words, be sure to state your design in English descriptions as well as diagrams.

### **Due Thursday, October 13, 2005: Database Design**

Translate your data model into a database design using one of the relational database systems (Microsoft Access, MySQL, Oracle 10g, SQL Server, etc.). Create a design report that illustrates how you implemented your data model. Show the tables and the relationships between them. Describe any feature of the relationship that is important (Enforce Referential Integrity?, Cascaded Updates or Deletes?, etc.).