I308 Team Final Project, Part One

For the final team project you will design and build a database for the Student Records System. You have been given some preliminary information about this, but be aware that some of the requirements below are slightly different and that there is additional material.

Although (of course*), this system will be nothing like the size of IU, you can use your experiences here and resources available on the web to help you clarify and interpret the requirements. We will also issue clarifications as necessary as you work on the project.
**no pun intended*

About Part One

Part One of the project consists of an ERD and Conversion. The project requirements and specifications can be found on the next page. You will have some time in lecture this week to begin working on the ERD with your team.

Week 11 In-Lecture Consultation

Come to your Week 11 Lecture with a printed draft of your ERD *and* a list of questions to clarify the requirements. The draft should *not* be hand-drawn. We will spend part of the lecture in the client role meeting with each team. Instructors will play the role of the client and, in that role, we will not answer questions like "Is this ERD correct?" Your questions should focus on clarifications about how the system should or does work.

This preparation is worth 20 points of your 100 points for Part One.

Due Date for Part One

Part One will be due by 11:59 the night before your Week 12 lecture. This will account for the remaining 80 points for Part One.

We will do our best to point out problems with the design when you ask questions that might prevent a successful implementation in Part Two, but you should be aware that building a database system is a cyclical process, and you may have to revisit earlier steps and make changes as you continue. You will *not* receive graded feedback on Part One before embarking on Part Two. This is intentional. When designing a real-world system, the implementation phase is what reveals problems with the initial design.

For the submission please place the team members names that participated and if necessary, the amount of the participation if the member does not fully help the team.

About Part Two (Preview)

Part 2 will be assigned during Week 12 and will require the creation of the database, data, query statements, and web-based reports utilizing PHP.

Requirements Analysis

The requirements you will find below are not necessarily complete. There may be additional details and things you need to keep track of on your database. Think about your experiences as a student along with what you think a faculty member might be concerned with in order to build an adequate database.

Students have a student ID, name, address, one or more phone numbers and one or more email addresses, and a parent name and phone number.

Courses have a course number (e.g., INFO-I 308), a title (e.g., “Information Representation”), and a number of credit hours. Courses have sections.

Classrooms have a capacity, and one or more features (e.g., “computer lab”).

Section of courses are taught by faculty who have a rank, hire date, an office a phone number, one or more email addresses.

Classrooms and offices are types of rooms, which are in buildings that have names and addresses.

Students receive a grade in each section. The system must be able to calculate GPAs and produce letter grades.

A course can be scheduled multiple times each semester in different rooms with different instructors.

Students take sections during semesters that have a title, a start date, and an end date.

Courses may have one or more other courses as prerequisites.

Students pursue one or more majors. Departments offer majors.

Each department has a chairperson who is a faculty member; all faculty members belong to departments.

A course’s subject (e.g., INFO-I) indicates which department (e.g., Informatics) offers it.

Students have one or more advisors, who have advisor IDs, names, an office (a room), and one or more areas of expertise.

** Faculty are people, too! (And, as such, require names!)*