Develop a data model to support all the activities that are relevant to the task of academic advising at university level. At its core, the system must support 3 categories of users:

1) Students
2) Advisors
3) Administrator (department, college or campus).

Consider the following set of requirements for a University advising system.

- With proper authentication, students should be able to view their progress toward their degree and identify which requirements are still unmet.

- With proper authentication, advisors should be able to view individual student advising sheet, and add to or edit the previous advising information.

- Advisor should be able to view the degree requirements for a given program and a given academic year.

- The advisor and the student should be able to ask what if questions such as what if I decide to graduate with the most recent degree requirement vs. the year that I declared my major?

- Administrators should be able to 1) enter degree requirements into the system without having any knowledge of programming. 2) Print degree requirements for a given program/year. 3) Print degree audit report for a given student or a group of students (ie. All the students in a department, college, campus).

You may also consider the following information as being true.

- The university keeps track of each student's name, id, current address and phone, permanent address and phone, birth date, sex, classification (freshman, sophomore, junior, senior, graduate), major and minor department and degree program such as (B.A., B.S., M.S., Ph.D.)

- Each department is described by name, office number, building, phone number and the college or school it belongs to. Department name is unique for each department, however departments also are given a 3 or 4 letter department id.

- Each department employs many employees (faculty, staff and students) and is chaired by a faculty member. Some departments have an associate chair.
Each department offers one or more degree programs. Aside from the major requirements, each degree program has a number of other degree requirements such as general education, math, science, etc. Typically these degree requirements can be fulfilled by taking one or more courses.

Employees that have a faculty classification teach courses. Each employee has an ID, name, address, tel, email and start date. Some employees may have be designated as an academic advisor and be assigned a number of student advisees.

Each course has a course id, course name, number, description, number of credits and is offered by a department. Some courses are however dual listed. The course number is unique for each course. Although, dual listed courses may have an alternate course number. A course may have many sections.

Each section has an instructor, semester, year, course and section number. The section number is used to distinguishes different sections of the same course that are taught during the same semester. Section numbers may be repeated during two consecutive semesters.

What to hand in:

- Cover page with paper title, your name, course # and name, assignment #, date.
- Identify the Entities, Attributes and Relations for the above system. Identify the key attributes, multivalued attributes, composite attributes and derived attributes.
- Draw an ER diagram for the above system.
- Identify the cardinality and ordinality of relationships and further identify any associative entities.
- Identify the weak entities.