ER Diagram Questions

1. Draw an ER Diagram for
2. courses, including number, title, credits, syllabus, and prerequisites;
3. course offerings, including course number, year, semester, section number, instructor(s), timings, and classroom;
4. students, including student-id, name, and program;
5. instructors, including identi‑cation number, name, department, and title.
6. Draw an ER Diagram for
7. Company organized into DEPARTMENT. Each department has unique name and a particular employee who manages the department. Start date for the manager is recorded. Department may have several locations.
8. A department controls a number of PROJECT. Projects have a unique name, number and a single location.
9. Company's EMPLOYEE name, ssno, address, salary, sex and birth date are recorded. An employee is assigned to one department, but may work for several projects (not necessarily controlled by her dept). Number of hours/week an employee works on each project is recorded; The immediate supervisor for the employee.
10. Employee's DEPENDENT are tracked for health insurance purposes (dependent name, birthdate, relationship to employee).
11. Draw an ER Diagram for

MAIL ORDER DATABASE

Suppose the the database designers provide the following description of the mini world.

The mail order database comprises of EMPLOYEES who takes ORDERS for PARTS from CUSTOMERS.

The data requirements are summarized as below:

1. The mail order company has employees, each identified by a unique customer number, first name and last name, and Zip Code.
2. Each customer of the company is identified by a unique customer number, first name and last name, and Zip Code.
3. Each part sold by the company is identified by a unique part number, a part name, price, and quantity in stock.
4. Each order placed by a customer is taken by an employee and is given a unique order number. Each order contains specified quantities of one or more parts.
5. Each order has a date of receipt as well as an expected ship date. The actual ship date is also recorded.
6. Draw an ER Diagram for

MOVIES DATABASE

The data requirements are summarized as follows:

1. Each MOVIE is identified by a title and year of release. Each movie has a length in minutes.
2. Each has a PRODUCTION COMPANY, and each is classified under one or more genres (such as horror, action, drama, and so forth).
3. Each movie has one or more DIRECTORS and one or more ACTORS appear in it. Each movie also has a plot outline.
4. Finally, each movie has zero or more quotable quotes, each of which is spoken by a particular actor appearing in the movie.
5. ACTORS are identified by name and date of birth and appear in one or more movies. Each actor has a role in the movie.
6. DIRECTORS are identified by name and date of birth and direct one or more movies. It is possible for a director to act in a movie (including one that he or she may also direct).
7. PRODUCTION COMPANIEs are identified by name and each has an address. A production company produces one or more movies.