

ASSIGNMENT 5: ER Diagram

University database application.

- An university has many departments
- Each department has multiple instructors; one among them is the head of the department
- An instructor belongs to only one department
- Each department offers multiple courses, each of which is taught by a single instructor.
- A student may enroll for many courses offered by different departments

SOLUTION:

1) Identified Entities

1. DEPARTMENT
2. COURSE
3. INSTRUCTOR
4. STUDENT

2) Identified Relationships

1. A Department offers many Courses.
2. Many Courses enrolled by many Students.
3. A Department Has many Instructors.
4. A Department Headed by an Instructor.
5. Many Courses taught by one Instructor.

3) Key Attributes

1. DEPARTMENT – Dname (Department Name)
2. COURSE – Course Number
3. INSTRUCTOR – Iname (Instructor Name)
4. STUDENT – Student Number

4) Other Attributes

1. DEPARTMENT – Location
2. COURSE – Course Name, Duration, Pre Requisites

3. INSTRUCTOR – Room Number, Telephone Number
4. STUDENT – Student Name, Date of Birth

5) ER-Diagram:

