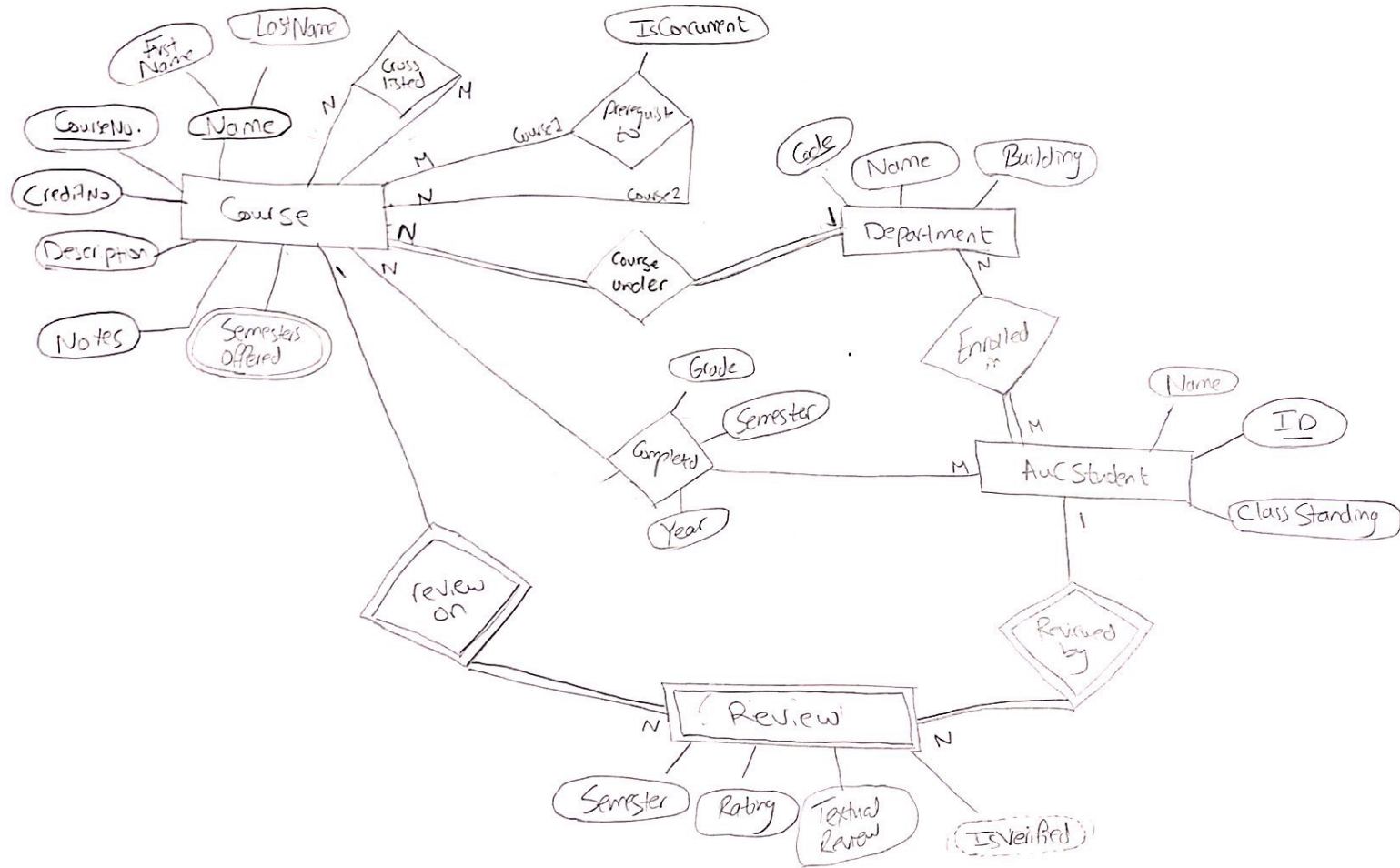# Fundamentals Of Database

Milestone I

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ERD

Diagram

Notes on ERD:-

(1) "Enrolled in" relation is many-to-many between student and department to take into consideration students with more than one major

(2) Cross-listing is taken care of through many-to-many relationship of "Cross-listing".

(3) From my understanding of the data requirements, each student needs to be specified a department (my assumption is that the department here represents the major, hence point 1 mentioned above)

Relationd

Model

Course (No., Name, Credit No., Description, Notes, DeptCode)
PK = No.
FK = DeptCode

Department (Code, Name, Building) # Assuming Code is short form of Dept name, e.g Anthropology is ANTH
PK = Code

CourseCrossListed (Course1No, Course2No)
PK = Course1No, Course2No ; FK, FK

Course 1 is cross listed with Course 2

Course Prequisite (CourseNo1, To CourseNo2, IsConcurrent)
PK = CourseNo1, ToCourseNo2 ; FK, FK

Course 1 is prequisite to Course 2

Course Semester Offered (CourseID, Semester) # In case it is offered in more than one semester
PK = CourseID, Semester ; FK = CourseID

Auc Student (ID, FName, LName, ClassStanding)
PK = ID

Student Courses Completed (StudentID, CourseNo, Grade, Semester, Year)
PK = StudentID, CourseNo ; FK, FK

Student Enrolled Dept (StudentID, DeptName)
PK = StudentID, DeptName ; FK, FK

Student Review Course (StudentID, CourseNo, Rating, Textual Review)
PK = StudentID, CourseNo ; FK, FK

The (isVerified) is a derived attribute that will be calculated during retrieval by comparing CourseNo. in this entity with StudentCourses Completed for the student with same ID. This is why the IsVerified is not shown in relational model