Entity-Relationship Diagram

Course (entity) with attributes: code (key), isReq, title, semester, year

Has (relationship)

Section (entity) with attributes: secNum, capacity, enrollment, CRN (key)

TA (entity) with attribute: name (key)

Assigned (relationship) with attributes: text, ta_hours, new

Info (entity) with attributes: classTime, days, room, semester, building, ID (key)

Instructor (entity) with attributes: hireDate, Name (key)

isA

Professor (entity) with attributes: name, tenure, title

Teacher (entity) with attributes: type, name

ER Diagram Explanation:
We broke up the ER model into different entity sets which are; course, section, info, instructor, and TA. Instructor is broken up into weak entity sets, professor and teacher, so that we can only have the tenured attribute for professors instead of for both professors and teachers since teachers will not be tenured. All of our entity sets go through the assign relation which has the additional text (textbook) and new (is this the professors first time teaching the course). We make the info entity set so that the assign relation wouldn't have to have so many attributes attached to it.

Schemas:
assign(crn, info_id, instr_name, new, ta_hours, ta_name, textbook)
course(code, isReq, semester, title, year)
has(code, crn)
info(building, classTime, days, id, room_num, semester)
instructor(dateHired, name)
professor(name, tenure, title)
section(capacity, crn, enrollment, section_num)
ta(name)
teacher(name, type)