1. A university database contains information about Teaprofessors (identified by social security number, or SSN) and courses (identified by courseid). Professors teach courses; each of the following situations concerns the Teaches relationship set. For each situation, draw an ER diagram that describes it (assuming that no further constraints hold).
2. Professors can teach the same course in several semesters, and each offering must be recorded.
3. Professors can teach the same course in several semesters, and only the most recent such offering needs to be recorded. (Assume this condition applies in all subsequent questions.)
4. Every professor must teach some course.
5. Every professor teaches exactly one course (no more, no less).
6. Every professor teaches exactly one course (no more, no less), and every course must be taught by some professor.
7. Now suppose that certain courses can be taught by a team of professors jointly, but it is possible that no one professor in a team can teach the course. Model this situation, introducing additional entity sets and relationship sets if necessary.