Assumptions:

Student to Course Type - This is a many to many relationship, because one student may have many general enquiries regarding the course, and one type of course may receive many questions. This relationship is optional-optional. A student can send a question but does not have to; a course can also receive queries but it is not necessary for the course to exist. Regardless of sending/receiving a query, the student and course type exist.

Course Type to Current Course - This is a one to many, mandatory to optional relationship. Course Type is mandatory - does not have to have a current course to exist, however it can have many over time. The current course must be one of the course types. Without a course type, the current course will not exist.

Course Type to Trainer - This is a many to many relationship. Each course has one or many trainers who lead the course. A trainer, if has the appropriate qualifications, can conduct many courses. The Course Type is optional and Trainer is mandatory. The course must have a trainer who has qualifications; without a trainer the course cannot exist. We cannot offer a course to students if there is no trainer who can carry it out. However, not every trainer has to provide the courses. A young employee (trainer without experience) can attend a course but not as a trainer but as an observer; or a trainer who has more experience can attend classes as an observer who supervises the work of an unexperienced trainer.

Trainer to Current Course - This is a many to many relationship. One trainer can run many current courses over time, and a current course must have a trainer assigned to it, but a course doesn't have to have just one trainer. Since there are many trainers who can run a given course, they can also support, help or replace each other during the current course. Trainer is mandatory and Current Course is optional. A trainer exists even if they do not lead the current course, but the current course must have a trainer to lead it; without a trainer the current course cannot exist.

Current Course to Room - This is many to one relationship. The current course takes place in the same room during the whole course, however one room may be used for many different courses, e.g. morning classes for one current course and evening classes for another current course, or the same room may be assigned to different courses over time. Current Course is optional and Room is mandatory. The current course must have a room assigned, because if there is no place to conduct classes, the current course cannot take place (does not exist). Not every room has to be assigned to the current course, and they still exist, e.g. staff room, office and even the toilets.

Student to Current Course - This is a many to many relationship. One student may take many current courses over time; can obtain different qualifications by participating in different courses. Each current course may have many students attending the classes. Student is mandatory and Current Course is optional. A student exists regardless of whether they currently participating in a course or not (e.g. may only ask a general question and is currently considering enrolling in a course or waiting for a convenient date). However, the current course will not start if it does not have the appropriate number of interested people. Therefore the current course depends on the student, without the student it does not exist.

Online Booking Course to Accommodation - This is many to one and optional-optional relationship. One online course booking can have one accommodation assigned, because one booking is made by one person. Accommodation is optional because not every student needs it (some people travel from their own home if they don't live too far away, others may stay with friends during the course). Accommodation does not have to be allocated if there is no need for it, but can also be allocated to many bookings over time. Accommodation and Online Booking Course are not dependent on each other, they exist independently.