

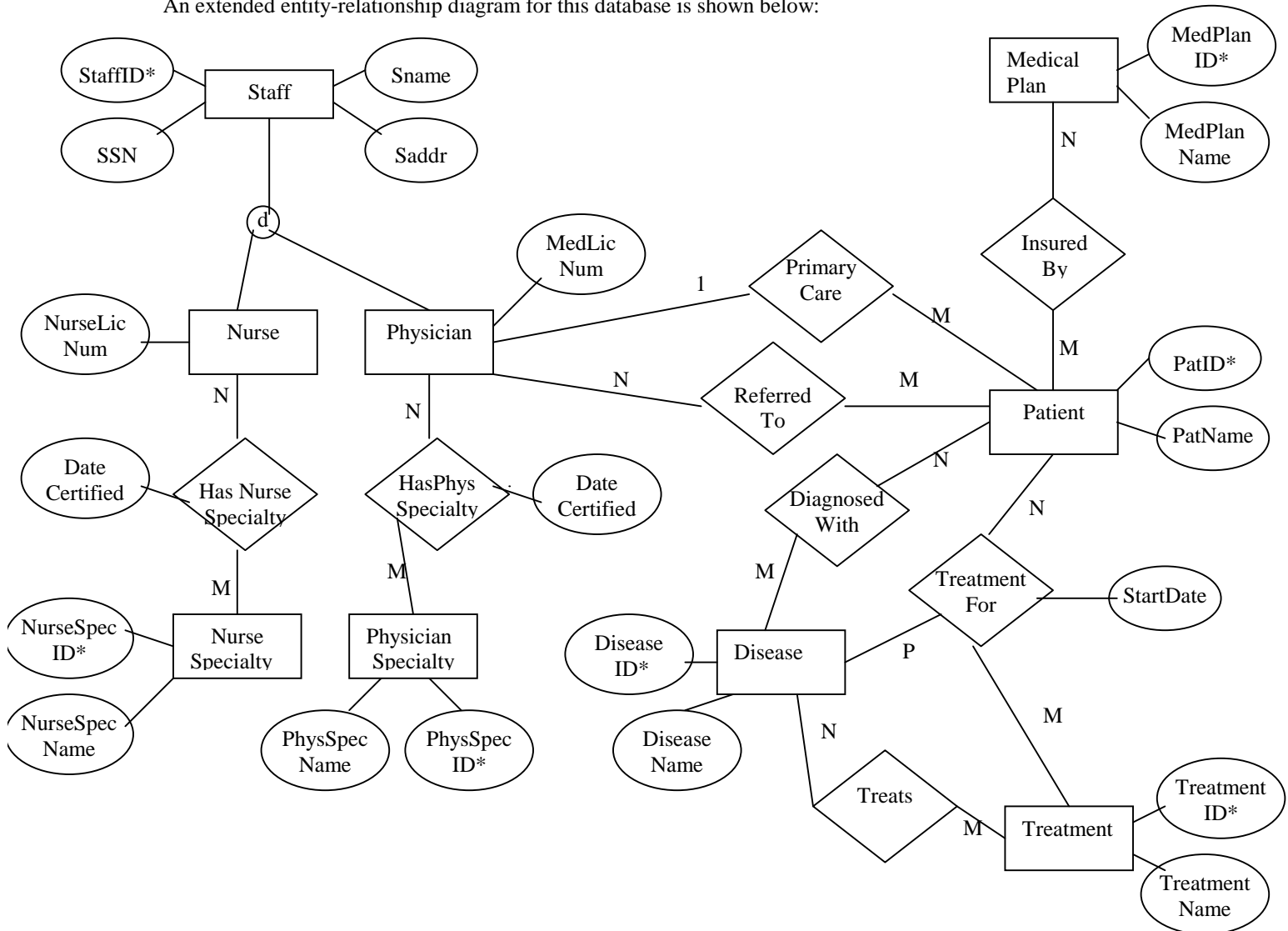
CIS 671, Winter 2002

Homework 4: Object Definition Language (ODL)

Consider the following scenario:

A large doctors' office has asked you to design a database for their office. They employ many doctors, nurses and clerical staff. The staff members are identified by their staff IDs. They also have SSNs, names and addresses. The doctors each have a medical license number and one or more physician specialties. Each specialty has an ID and a name. The date the doctor was certified in the specialty is recorded. Nurses have license numbers and may also be certified in nursing specialties. Doctor and nurse specialties are different. The system is also to include information about patients including patient ID, name, medical plan and medical plan ID. Each patient has one primary care doctor. Patients may also be referred to one or more specialists in the office. A list of diseases (IDs and names) and treatments (also IDs and names) are kept along with information on which treatments can be used to treat which diseases. When a patient is diagnosed with a disease, that diagnosis is recorded along with the treatment(s) chosen for the disease. The starting date for each treatment is recorded.

An extended entity-relationship diagram for this database is shown below:



1. (15 points) Translate the EER diagram shown above to the graphical notation for representing ODL schema shown in Figure 12.5.
2. (15 points) Translate the EER diagram shown above to ODL. You need show the attributes only for the following entities: Staff, Physician, Patient, Disease and Treatment. Show all the relationships and their associated attributes.