



# TÉCNICO LISBOA

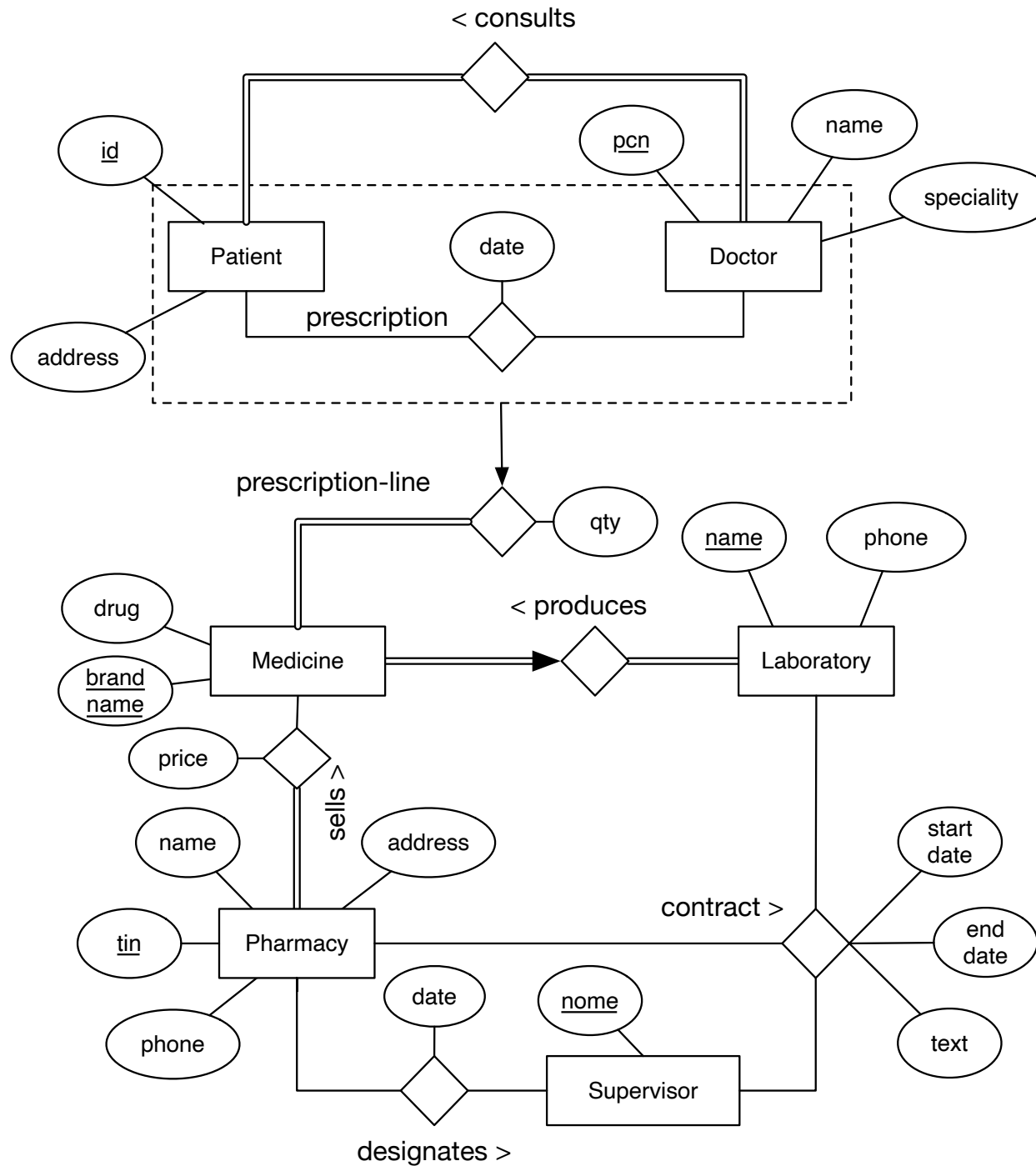
**E-A Modeling**

Lab companion slides



# Solution for E-A Scenario 3

# Scenario 3



What is missing?  
ICs are missing

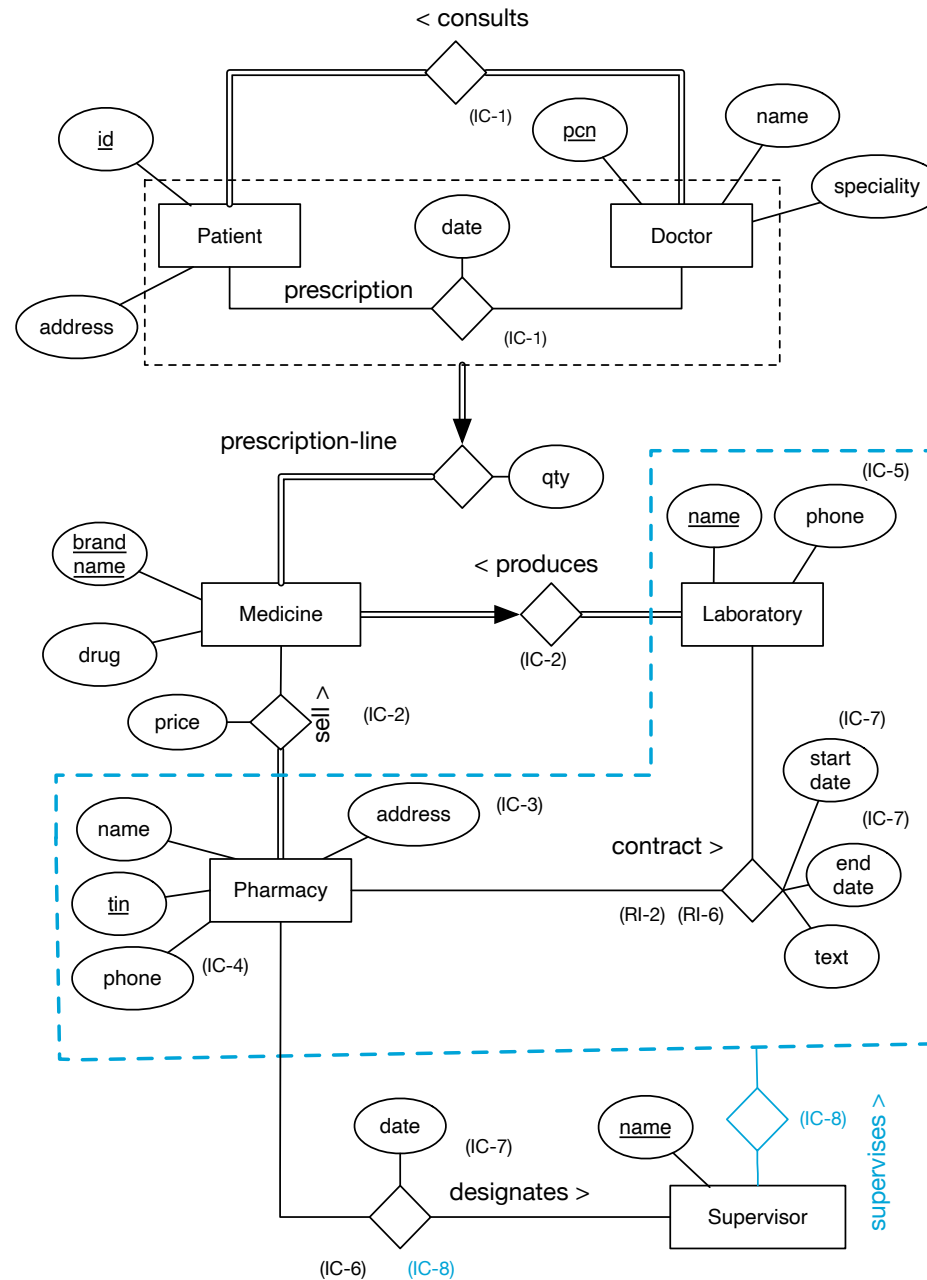
# Integrity Constraints

- IC-1: A Prescription can only be **prescribed** to a Patient by a Doctor who **consults** it
- IC-2: A Pharmacy can only **sell** Medicines **manufactured** by Laboratories with which it has **contracts**
- IC-3: The address of a Pharmacy is unique
- IC-4: The phone number of a Pharmacy is unique
- IC-5: The phone number of the Laboratory is unique

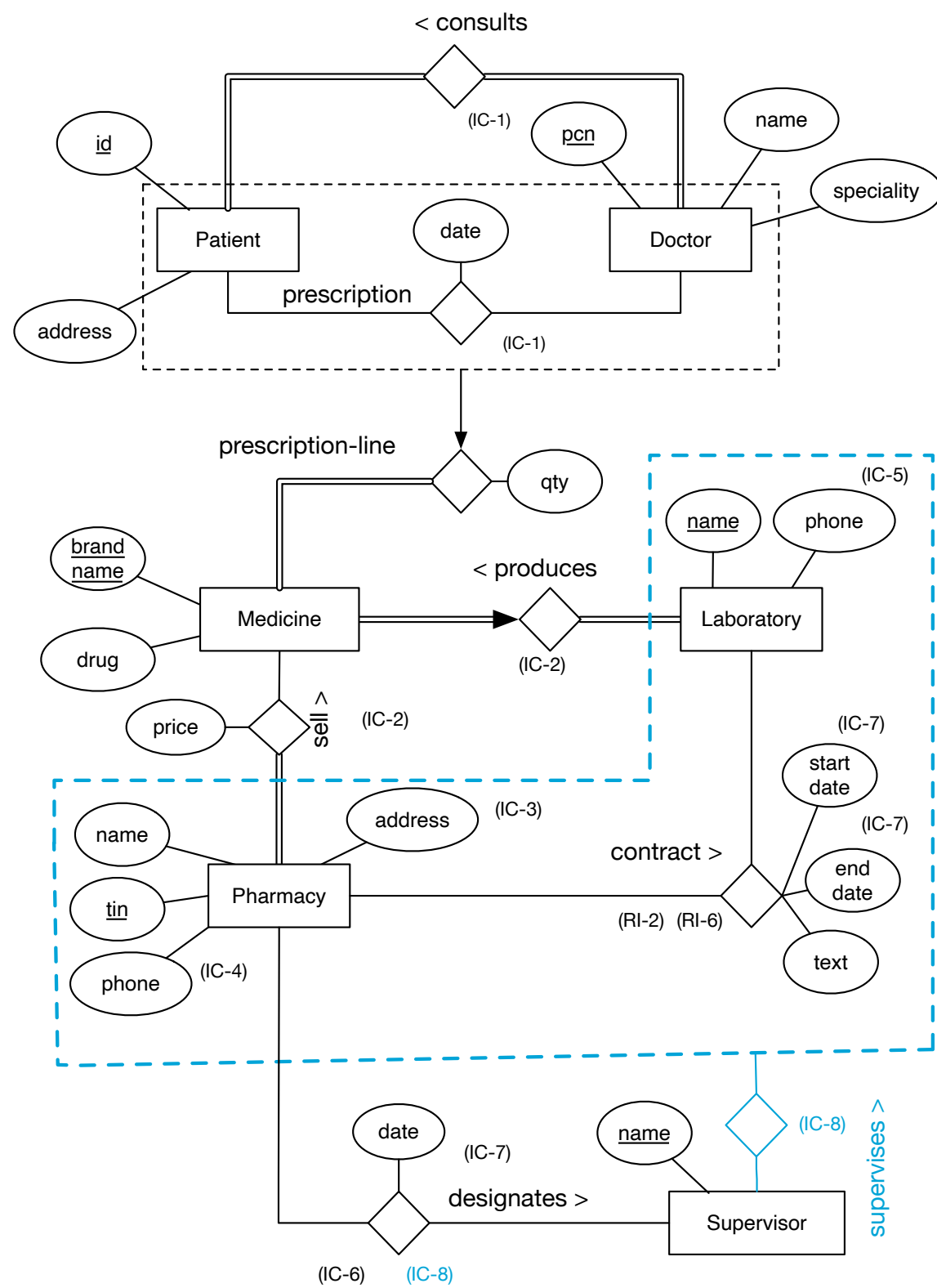
# Integrity Constraints

- IC-6: A Supervisor may only be **designated** by a Pharmacy for **contracts** established with the Pharmacy
- IC-7: The **start date** of the designation can not be earlier than the **start date** of the contract nor later than the **end date** of the contract

# Solution with ICs



# Solution for E-A Scenario 4

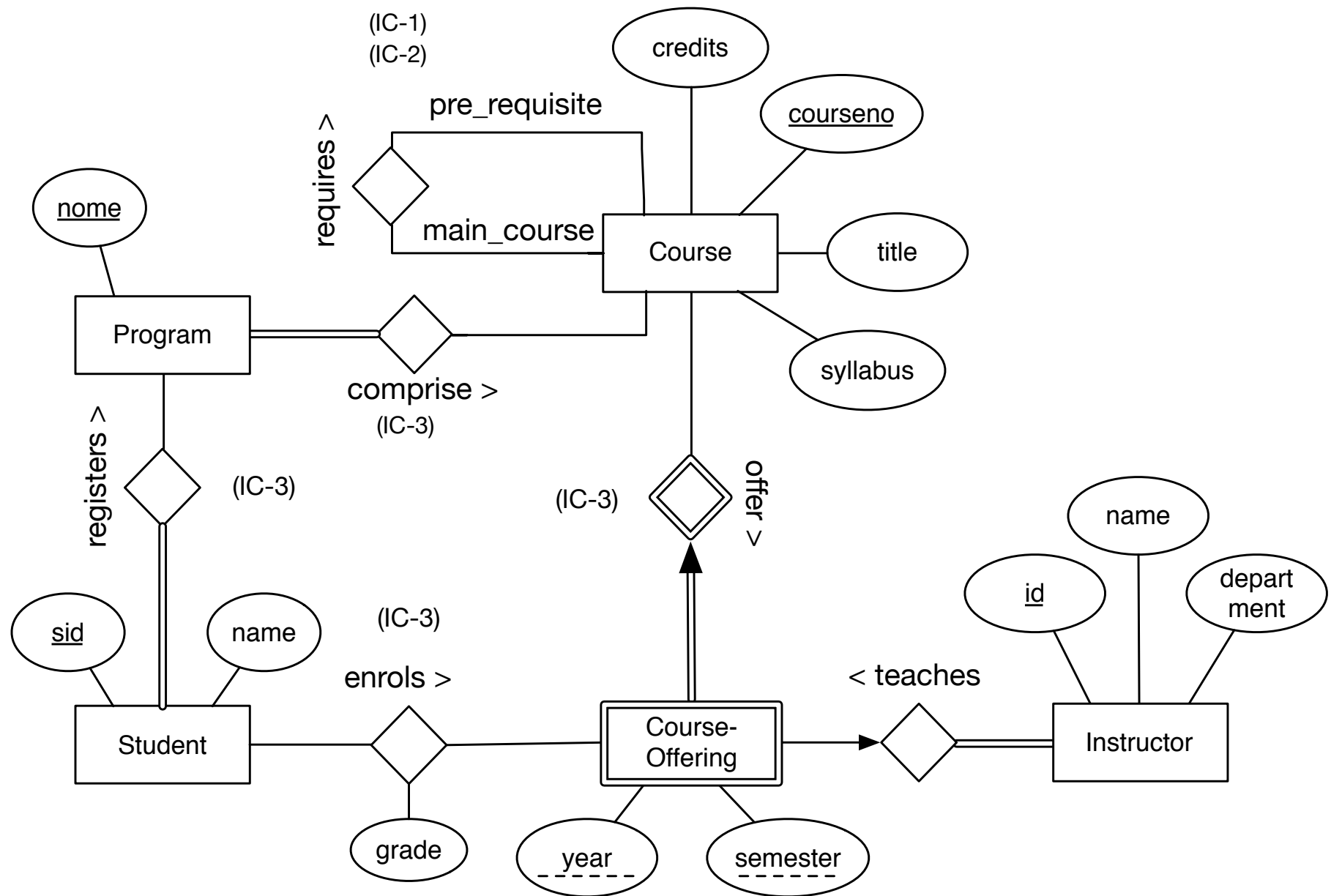




# Integrity Constraints

- ▶ **IC-8**: A Supervisor may only **supervise contracts** for Pharmacy for which he/she has been designated.

# Solution for E-A Scenario 5



# Integrity Constraints

- IC-1: A Course cannot **require** itself
- IC-2: Courses cannot **require** one another circularly
- IC-3: A Student can only **enrol** in Course Offerings **offered** from Courses **comprised** by the Program where he/she is **registered**.