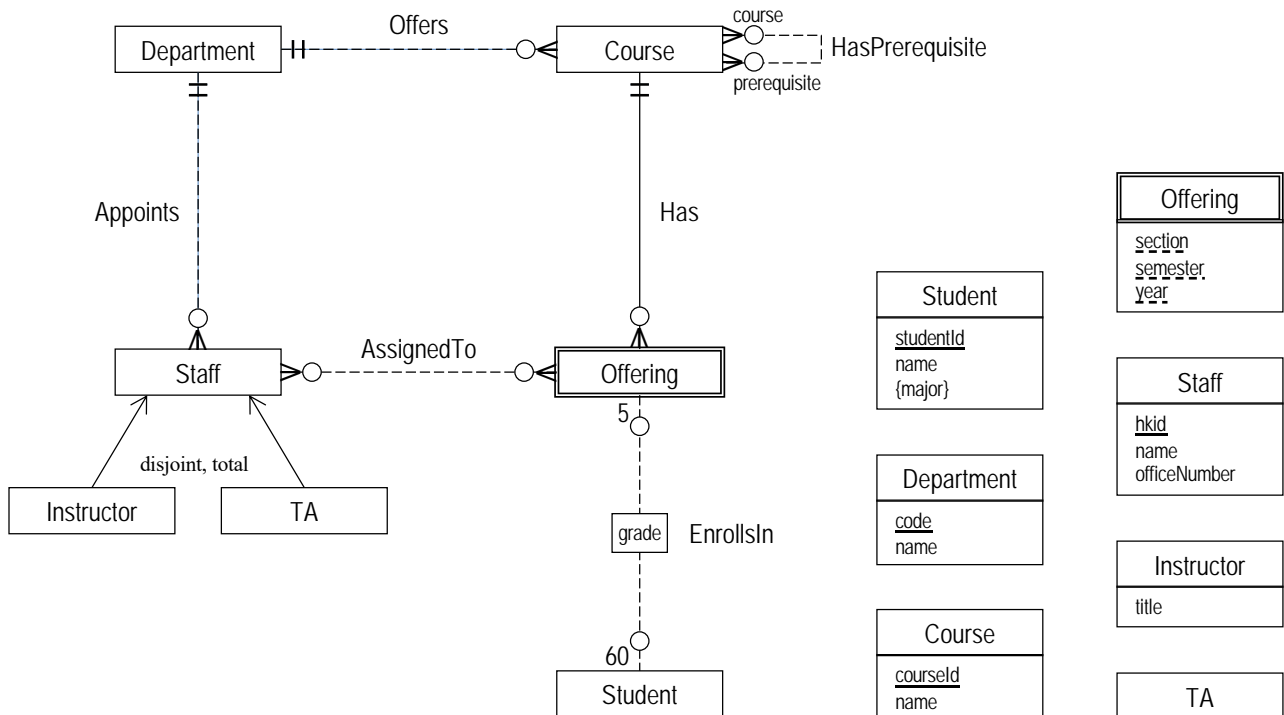


# COMP 3311: Database Management Systems

## Lecture 4 Exercises Relational Model and Relational Database Design

**Exercise 1:** Reduce the university E-R schema to relation schemas. Specify all keys and referential integrity constraints. Do not add any surrogate keys. **Use schema combination where possible to reduce 1:1 and 1:N relationships.**



Name: (1) \_\_\_\_\_ / \_\_\_\_\_ Student#: (1) \_\_\_\_\_ Date: \_\_\_\_\_  
Family/Given (PRINT) Given/First (PRINT)

Name: (2) \_\_\_\_\_ / \_\_\_\_\_ Student#: (2) \_\_\_\_\_  
Family/Given (PRINT) Given/First (PRINT)

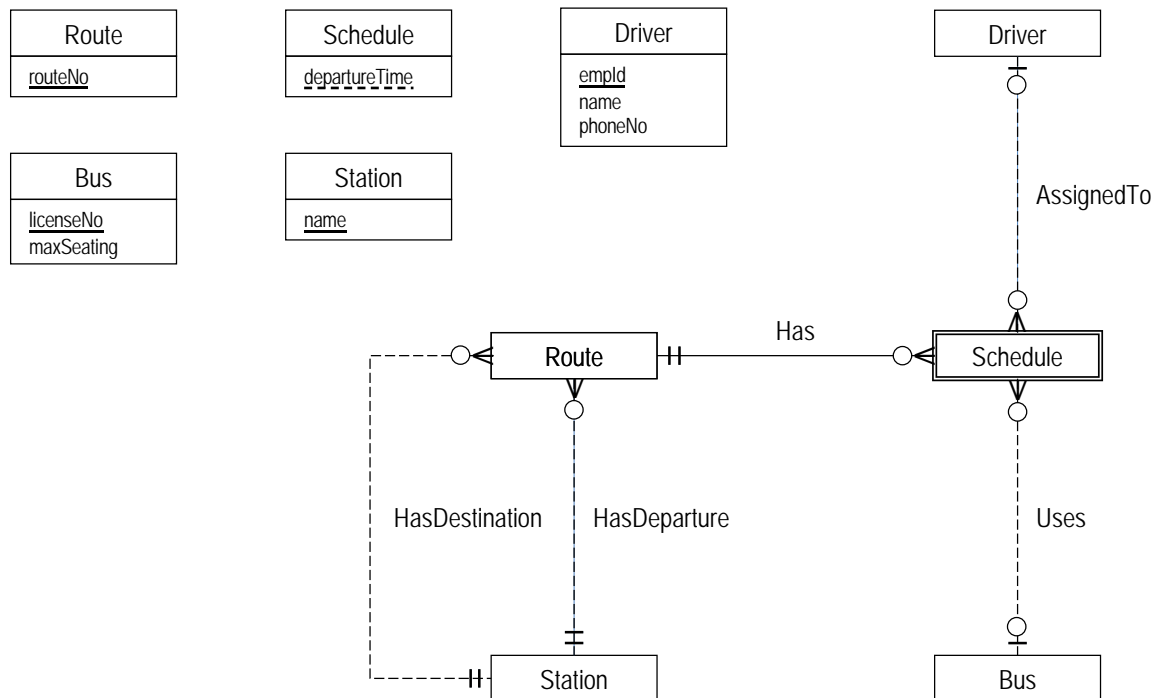
NOTE: You are highly encouraged to do this exercise with a partner.

## COMP 3311: Database Management Systems

### Lecture 4 Exercises

#### Relational Model and Relational Database Design

**Exercise 2:** Reduce the bus company E-R schema to relation schemas. Specify all keys and referential integrity constraints. Do not add any surrogate keys. **Use schema combination where possible to reduce 1:1 and 1:N relationships.**



You must upload this completed exercise sheet to Canvas by 11 p.m. today.