

**DASC 5333 Database Systems for Data Science**  
**CSCI 4333 Design of Database Systems**  
**Fall 2024**  
**Homework #3 Model Transformation**

### UML Conceptual Model to Relational Logical Model

(1) Using the [suggested UML solution](#) of Homework #3 (*not* your own solution) and the specification of HW #3, construct the relation schema to implement the UML diagram). For each relation, underline the PK and list:

1. all candidate keys: e.g. [1] FacultyId, [2] {FirstName, LastName, DepartmentNumber}
2. all foreign key references: e.g. [1] ChairFacultyId references Faculty[FacultyId], [2] StudentId references Student[StudentId]
3. Whether attributes are nullable or not?: e.g. Nullable: [1] MiddleInitial, [2] Phone
4. Notes: such as the creation of surrogate primary key, assumptions and design issues.

Use [h3sol\\_template.docx](#) as the template. Rename it as H3\_<<Your name>>\_<<Your Student ID>>.docx and submit your homework through Canvas.