

# Homework 1

**Max total: 4 points**

*Before you begin, for academic honesty, please read the paragraph below and sign there.*

I have done this assignment completely on my own. I have neither copied nor shared my solution with anyone else. I acknowledge that if I engage in plagiarism or cheating, I will sign an official form admitting to the violation, which will be added to my official university record. I also understand that a first offense will result in a grade of 0 for the assignment and a one-level reduction in my course letter grade, and any subsequent offense of any kind will result in a grade of 'F' for the course.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

**You can draw an ER diagram using <https://app.diagrams.net/> A hand-drawn ER diagram won't be accepted.**

1. (3 points) Design an ER diagram for the Student Registration System based on the provided Requirements Document. Remember to indicate the key for each entity set and the connectivity of each relationship. Use (min, max) format to indicate connectivity. Note that many constraints cannot be represented in the ER diagram, and they will be represented at later stages of the database design. Question 3 of this homework asks you to list these constraints.
2. (0.5 points) Discuss whether it is a good idea or not to create a super entity set for Students and Faculty in the ER diagram for the Student Registration System.
3. (0.5 points) Identify constraints in the Requirements Document for the Student Registration System that cannot be expressed using the ER model we discussed in class. First list the constraints not represented in the ER diagram for each entity set separately. Then list the constraints involving multiple entity sets.