* First step

Keep a list of students that are to\_be\_distributed

Randomize list

Starting from the top

Every student gets their first preferred course

* If this course is full / timeslot not available, look at second
* Look all the way down the preference list, we want exactly one course

If this student has either enough credits or no more courses in preference list, remove from to\_be\_distributed

Loop this until to\_be\_distributed is empty

* Now we have some courses with too few students and students with too few courses.

Check if we can fill all courses with the students we have left

If not, scrap the course that needs the most students / has the least -> repeat this step

If we can, fill the courses. Repeat until finished:

* Take with student who needs the most credits, give them the course with the most credits
* Or just fill students in the random order they are in until enough credits.

We have a first solution.