Exercise mode: Statistical methods of data analysis

In the weekly exercise courses, problems of the current lecture material have to be prepared and presented.

The courses take place on Mondays between 15:15 and 16:30, directly after the lecture. The first exercise will be on October 27, 2025.

Attending the exercise courses is compulsory. One exercise can be missed without any justification.

The exercise sheets will be uploaded to TUWEL/Moodle always on Monday, giving you one week to work on the examples. Some can be solved on paper, others are programming tasks in Python in Jupyter notebooks. Prior knowledge of the Python programming language is not necessary, but basic programming skills are recommended.

By 10:00 on the day of the exercise, you have to cross the examples that you worked out in TUWEL/Moodle. Only examples that have been crossed count as submitted and towards your final grade! During the exercise session, one or more people who submitted the example will be asked to present it. The instructor will ask related and follow-up questions to encourage a group discussion on the example and the associated topic.

In case of an insufficient presentation, the instructor can delete the presented example, i.e. they can count it as not submitted. If, in addition to an insufficient presentation, the example was obviously not worked on in advance or not worked out by the presenter themselves ("speculative crossing"), the instructor can discard all their crosses for the current exercise sheet.

The exercise grade is calculated from the number of examples submitted and possible bonus points (max. 1 per exercise), which can be awarded for exceptionally nice preparations (e.g. very meaningful plots, visualizations, etc.), frequent (voluntary) presentations, active participation, etc.

Note that presenting (successfully) at least once during the semester is a *necessary* condition for passing this course!

There will be in total N exercise sheets (probably 9) with 6 exercises per sheet. With n_i the number of exercises crossed per sheet ($i = 1, \ldots, N$), and n_b the number of bonus points, the final grade for the course is calculated as

follows:

$$x = n_b + \frac{1}{6(N-1)} \sum_{i \neq j} n_i \qquad j = \arg\min_i n_i \qquad (i = 1, \ldots, N).$$

$0.875 \leq x$	...	Grade 1
$0.75 \leq x < 0.875$	...	Grade 2
$0.625 \leq x < 0.75$	...	Grade 3
$0.5 \leq x < 0.625$	...	Grade 4
$0 \leq x < 0.5$	...	Grade 5

Uni Vienna: The exercise grade accounts for 60 % of the final grade. The remaining 40 % are determined by an exam on the lecture part of the course at the end of the semester.

TU Vienna: The exercise grade is an independent certificate, not related to the grade of the lecture exam.