

# Detailed Requirements of Physics Laboratory Exercise for Civil Engineers

Three measurements have to be accomplished during the semester according to a predefined schedule. There are five measurement setups for each exercise, so 2 (or 3) students will form a group.

Every student is obligated to learn the lab notes before each of the measurements which are based on the physics studies of the BSc. A consultation will be held once every week to help the preparation for the measurement.

At the beginning of every exercise, a short, 25 minutes test will be written to check the preparation. These notes can be found on the webpage of the lab exercise. With the test at most 30 points can be reached. During the measurement the data has to be recorded and then every group has to write a lab report and send it to the instructor by e-mail with a deadline of one week (Wednesday/Friday midnight) (following format of the file: [name of the measurement]\_[name1]-[name2].pdf). In the mechanics measurement computer will be used for collecting the data, **please have a pendrive**. With the lab report at most 20 points can be acquired. During the measurement every group has to write a measurement log, which has to contain the conditions and the procedure of the measurement and the measured data. The instructor will sign the measurement log at the end of the exercise and it has to be enclosed to the lab report. In total 50 points can be reached by a measurement.

To accomplish a measurement at least 5 points on the test and 5 with the lab report has to be acquired, but at least 25 altogether. If a measurement is failed (one reaches less than the required amount of points, or one does not appear for the measurement), it can be repeated, but only once during the semester. The time of the repetition has to be discussed with the instructor. In case of repetition the average of the points of the failed and repeated measurements will be provided.

The lab report should contain:

- Short introduction about the measurement (what is the task, theoretical summary)
- Methodology, instrumental setup
- Measured data, graphs
- Evaluation of the data (fitting, answering the questions in the lab note)
- Conclusions, comparison with the literature (if possible)
- Bibliography

Points correspond to the marks as it follows:

0-75: Mark 1 (insufficient)

76-94: Mark 2 (sufficient)

95-112: Mark 3 (ordinary)

113-130: Mark 4 (good)

131-150: Mark 5 (excellent)

If one student of a group cannot attend the measurement, the other(s) still have to perform it. If somebody remains alone, they may join another group of 2 students. If a non-attendance is foreseen, the instructor must be informed in advance by e-mail.

Sending the lab report can be delayed with one week maximum, but only once. In case of delay, after every started day 1 point will be subtracted. You are not allowed to eat in the lab, and no break will be held during the measurement. In other cases the corresponding section of the TVSZ (Regulation of Studies and Exams) has to be referred.