

Required for the completion of the measurement assignment:

- Hand written measurement plan
- At least 1 sheet of A4 millimeter paper
- A prepared measurement group, who have read and understand the measurement guidelines as well as their personal measurement assignment

Required for the acceptance of the measurement report

- The report must be in pdf format and the calculations must be in xls or xlsx
- One archive file (zip file) containing the measurement report (pdf) and the calculations (excel) needs to be uploaded to Poseidon
- The measurement report should not exceed 8 pages, not including the cover and the mandatory index
- The measurement report must contain the following:
 - Cover (Including the validation code)
 - The aim of the measurement, and short description of the measurement and used devices
 - The measurement results should include the calibration diagram of the manometers, made using the Betz manometer
 - The personal measurement assignment
 - The measurement results need to include the uncertainty / error calculations
 - The measured and calculated data (the results must be displayed in tabular form as well as diagram forms)
 - The evaluation section must contain the uncertainty calculations
 - The experiences gained in analyzing the data from the measurement
 - The handwritten measurement plan and the diagram on the millimeter paper need to be scanned and included in the measurement report as an annex
 - If the measurement has an online correction program available (e.g. M01, see <http://www.ara.bme.hu/lab>), it needs to be completed and the validation code needs to be included on the report cover
- The uploaded file must be named as follows:

Lastname1_NEPTUN1_Lastname2_NEPTUN2_Mx_date_of_submission.zip
Example: Coppola_ABC123_Almodovar_DEF456_M13D_20161030.zip

The deadline for submission of the report is midnight of the second Sunday following the measurement. If any of the required elements of the laboratory report are missing, then the laboratory report is considered unacceptable and the rules regarding late submission apply. The sanctions regarding late submission are the following:

Late by 1 day: max. 90%

Late by 2 days: max. 80%

Late by 3 days: max. 70%

Late by 4 days: max. 60%

Late by 5 days: max. 50%

Late by 6 days: max. 40%

Late by 7 or more days: The student is charged a late submission fee, max. 50%. The last deadline for submission of the report is 4 p.m. of the last day of the 14th week.

The submitted report can be revised only once. If the report is unacceptable upon first submission, then the second version can get only 50%.

Care should be taken during making the lab report:

- The lab report must be logically built up:
 - Present the aim of the measurement, measurement set-up, measurement assignments, steps of the measurement.
 - Declare the devices used in the measurement, calibration curve of the digital manometer.
 - Give the used equations and the measured and calculated data in tabular form.
 - Present and analyze the results.
 - The last chapter should be the discussion.
 - Do not forget the appendix.
- The lab report must be of high quality:
 - Aim to a justified format and good arrangement.
 - The equations must be made with equation editor.
 - The graphics must be properly formatted.
 - The figures and tables are numbered and named (it will be easier to reference).
 - Avoid the hand drawn figures (use: photographs, 2D/3D CAD software, ...).
 - Pay attention to the spelling.
 - Fill out the red sections on the cover and change the color to black.
 - Use the upper and lower indices consequently throughout the text, including the diagrams.
- The diagrams should meet the following requirements:
 - The axis and the displayed values must be named and the diagram must contain the denotations and units.
 - The texts and values must be legible.
 - Choose the diagram type to scatter chart. However, the data can be presented in a scatter chart with straight lines.
 - Display the uncertainty with error bars.
 - The diagram must be easy to follow: use different types of lines and marks and do not forget the chart legend entries.
 - The plot area must be as big as possible to easily read the data series. The chart legend entries can be placed on the plot area.
- It is enough to display the measured and calculated values to only 2 decimal places. The uncertainty in a measurement result may define how many decimal places you should report. For example, if the uncertainty in your result is in the first decimal place, then the measurement result should probably also be stated to one decimal place.
- The quantities' units must also be written in the tables.
- The measured and calculated parameters must be named in the lab report.
- The report must contain references.

If the lab report lacks one of these standards, the report cannot be 100 %.