**CHEM-E5140 Materials Characterization, laboratory course (5 cr.)**

**Instruction for laboratory report**

The idea of the laboratory report is to connect the actual experimental data with the theory from the book or contact sessions. Keep in mind the big picture of the course.

**During laboratory practice:**

* Keep with you a note “book” (paper/digital) and note down the procedures you did. If you did not understand why something was done, ask. There will not be a paper handout for each experiment, you are there to observe and take notes.
* Take also a cell phone/camera to the lab. Take pictures during the labwork. In the beginning, take a group selfie with the equipment (and add this to each report). That will confirm your presence.
* Take also a memory stick with you if there are images/data that you get from the lab work.

**Report:**

* I would prefer that you would make the report as a power point slide show, but also other formats are accepted. You are allowed to use as much of your imagination and personal aspect as you please, this is not too serious ;)
* The report should have the following chapters:
  + First page (with your name, what lab work, date of the work and student number)
  + Introduction (you pretask, not modified (if not asked))
  + Experimental
  + Results
  + Conclusions and reflection
  + References
* Your pretask works as your introduction (and references), this you should not change if not asked.
* If you made additional questions in pretask, ask them from the method expert and write the answers to the report (to intro or to conclusions). You only get the points if you have asked them and reported them.
* For the experimental part describe what you did in the lab work and why. This part can include both images and text.
* Result section should have the modified experimental data obtained from the lab work and comments on what can be seen from it. Make the data easy for the reader to understand. For the higher grades, you need to find some research paper with similar results and make data comparison.
* Conclusions should answer to following questions (bullet points, one slide):
  + Why was this work done?
  + What are the main conclusions?
* Reflection on slide
  + Reflection on what did you learned during the lab work and how is it connected on what you already know?
* List of references used as a base of this work.

Keep the focus of the report on the clarity of what you have done and why, if it’s clear too you, it’s clear to me.

You have 5 days time to submit the report to the MyCourses – Assignments. This is due to fact that it’s suppose be done as soon as possible after the laboratory. If you want you are allowed to discuss with the group of the finding that you had, but everyone will make their own report! The reports are turn in only ones and directly assessed. There is no change to modify the report. The feedback and grade will be given directly to MyCourses system.

If you hand in the report late, it will be automatically be -1 p. of the total grade. If you get ill or you have a good reason that you know you can’t make it in time, be an adult and ask extension from Annukka at least 24 h before the DL by email.