WEEKLY EXPERIMENT DISCUSSIONS, FINAL ASSIGNED EXPERIMENT PRESENTATION, & FINAL Ca-ANALYSIS REPORT GUIDELINES

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"Grading criteria and below guidelines may change at the discretion of the TA & instructor"

This document under **CANVAS/FILES/EXPTL-DISCUS FINAL-PPT&CaRPRT INSTR** is only a guide. Further information can be obtained from the syllabus and laboratory manual (Appendix A). Some previous samples may be given in **CANVAS/FILES/ADDITIONAL RESOURCE**S. Instructions and assignments for each experiment known as **ALR AFTER LABORATORY REPORT** are shown on **CANVAS/FILES/ALR REPORT ASSIGNMENTS**.

I. WEEKLY EXPERIMENT DISCUSSIONS (maximum 50 points: 25 points individual students discussion & 25 points team efforts discussion)

a. It is a team efforts and everyone should participate to discuss their previous week experiment. Each group gives the presentation to the TA only while the other teams are working on their experiments. The TA must keep an eye on the other groups simultaneously. There is no time for the groups to give presentation to the entire class.

b. Every time one person per team should give an oral-report within 5 minutes.

c. We have 4 oral-presentations in total (the 5th experiment doesn't need to be reported), and most teams have 4 people in one team. Hence, you MUST take turns to give presentation. Each one should give oral-report at least one time.

d. You don't need to prepare PPT and there is no equipment for you to show PPT. You only required to prepare an outline of key points for your oral-reports. The outline must be handed in after the presentation. Outline can either be printed or hand-written. Please use A4 paper or the SJTU lab-report paper.

e. It is similar to the <Discussion> part in Post-Lab Questions (PLQ) report. You can discuss any topic you like related to the experiment. However, there is a very important difference between them. Oral-report results are discussed by one team and will give just one report. For <Discussion> part in report, you can of course consult each other as a team, but you MUST write down your own report. If a TA finds reports that are duplicated, then he may submit them to Honor Council as an evidence for violating JI honor codes.

II. FINAL ASSIGNED EXPERIMENT PRESENTATION (Team efforts worth 50 points)

During the last week before final exam, each team is required to give 10-15 minutes presentation on one of the select experiments (E1-E5) that the TA will designate randomly. Students' PPT should include some photos documenting their experimental work. See Syllabus, Canvas/Files & Appendix A in manual for further guidelines. **Your final presentation on the assigned experiment E1-E5 should follow the guidelines below:**

-Cover slide, Objectives and Introduction (30-60 s)
- Background(theoretical, equation provided) (30-60 s)
- Brief Procedure (30-60 s)
(The above three should use at most 2 min in total)

- Data analysis (presenting the calculation based on raw data) (1.5-2 min)
- Error analysis and discussion (Based on your analyzed data, compare with theoretical background, find the error within your procedure). (2-3 min)
- Conclusion and Recommendation (1 min)

III. FINAL REPORT PROJECT: Calcium Analysis in Ca-products (team efforts maximum worth 50 points)

EXPERIMENTAL DESIGN ASSIGNMENT: This year the students will investigate on their own and propose experimental design and analysis of Ca content in common commercial products such as food, consumable products, or pharmaceutical vitamins. The students will rely on their work experience with experiments E1 to E5. The report should include abstract, introduction, theory, experimental setup, procedure, what data to measure (in suppliers supplementary products), & expected results. This design report should be condensed & similar to the depicted reports of any of their experiments and no more than 5 pages (or as posted by the instructions under "FILES" on Canvas).

In previous assignments many students emailed me ask questions about this chemical analysis assignment. I am glad to give you the hints below. But remember what you did on your special report at the end of the term of VC210 chemistry class. The report efforts should be similar.

1. You can make hypothesis on the cation contents of the products, then postulate how to analyze the **calcium content (PPM or mg/L),** how to precipitate Ca (isolated from the other cations), design experiment, write procedure, attempt to do pre-lab, data analysis, post lab and a conclusion report. Do not limit your gained knowledge from the lab (in particular experiment 5). It is open ended design where you will write short no more than 5 pages) challenging report to the instructor.

2. Transmittal letter is meant to teach you how to write a letter attached as a cover page to the report where you communicate with me, tell me your efforts, agony, difficulties faced, challenges, solutions and cost analysis, then use your expertise knowledge in presenting compelling evidences so I can support your project and give you grade for this assignment. The letter should be short and precise and will have technical data results that will only be used to support your project (the letter should be no more than about 1/2 page and different than the abstract).

3. Due date for this assignment is at start of your session week when you also present PPT about your assigned experiment.

IV. FINAL PRESENTATIONS & REPORTS SCHEDULE (CHECK CANVAS LATEST SCHEDULE):

- Section 1&2 @building E-xxx (Dong Zhong Yuan) Apr.12th (Wed.) 6-9 p.m.
- Section 3&4 @building E-xxx (Dong Zhong Yuan) Apr.13th (Thu.) 6-9 p.m.
- Section 5&6 @building E-xxx (Dong Zhong Yuan) Apr.14th (Fri.) 8-11 a.m.
- Section 7&8 @building E-xxx (Dong Zhong Yuan) Apr.14th (Fri.) 1-4 p.m.
- Section 9&10 @building E-xxx (Dong Zhong Yuan) Apr.14th (Fri.) 6-9 p.m.

V. FINAL EXAMINATION SCHEDULE (CHECK CANVAS LATEST SCHEDULE):

Exam time:
Exam rooms: @building D-xxx (Dong Xia Yuan), TAs:
@building D-xxx (Dong Xia Yuan), TAs:
@building D-xxx (Dong Xia Yuan), TAs: