

**RULES AND REGULATIONS
APPLICABLE TO LABORATORY CLASSES IN PHYSICAL CHEMISTRY
FOR STUDENTS OF MASTER DEGREE STUDIES
AT THE FACULTY OF CHEMISTRY**

The laboratory course consists of five laboratory classes of six hours each, selected by the head of the laboratory from the following eight laboratory experiments:

1. Determination of the Stern-Volmer constant for the process of quenching of fluorescein fluorescence
2. Belousov-Zhabotinsky reaction (experiment 5 in the laboratory course book)
3. Diffusion-limited aggregation: example of a fractal
4. Cyclic voltamperometry. Determination of parameters of the electrode process for the redox reaction involving iron compounds
5. Determination of the hydrodynamic radius of a molecule by the viscosimetric method (experiment 10 in the laboratory course book)
6. Chemical reactions in micellar solutions (experiment 7 in the laboratory course book)
7. Electrolytic dissociation of a polycarboxylic acid (experiment 3 in the laboratory course book)
8. Electrolytic and buffer properties of aqueous solutions of amino acids (experiment 1 in the laboratory course book).

Description of experiments can be found in the course book "Lecture and experiments in physical chemistry 2" (second edition, Faculty of Chemistry, AMU, Poznań 2003) and online at <http://www.staff.amu.edu.pl/~chemfiz/>

I. Prerequisites for passing individual experiments and achieving a pass on the course

1. Students participating in classes must be familiar with the theoretical background defined for each experiment and must know how to perform measurements and analyze results.

Measurement results should be presented in a report in a clear manner, specifying in detail the calculation procedure so that it is possible to check the calculations on a step-by-step basis.

2. Knowledge of the theoretical background and laboratory experiment completion are evaluated on a point scale. The student's response is evaluated on a scale from 0 to 5 points. Every experiment and report containing calculations leading to the final result is evaluated with a focus on correctness and diligence on a scale from 0 to 3 points.

To achieve a pass on a laboratory experiment, two prerequisites must be met, as listed below:

- a) passing the test with a minimum score of one point,
- b) performing measurements and receiving a minimum of one point for the report containing measurement results, their analysis and final results.

3. Students are required to submit completed reports at the end of laboratory class. Only in special circumstances students may be allowed to take their reports home to complete them, however not earlier than after six (credit) hours of experiments and subject to the condition that the supervisor approves it with their signature. If this is the case, the report must be submitted not later than during the next class.

4. Students are entitled to comprehensive consultations provided by the laboratory class supervisor, both during laboratory classes to help students with the analysis of results, and on set consultation dates. A list of dates set for additional consultations with supervisors, and names of the laboratory heads is posted on the information board in the Physical Chemistry Laboratory.

5. An absence from class is considered excused if a student presents a medical doctor's written statement during the first class following the end of the reason for the absence or, alternatively, if the laboratory class supervisor approves the reason given by a student for missing a class as valid. Excused missed classes can be made up subject to the availability of places in any of the remaining groups.

6. To receive a passing grade for the course called “Laboratory Classes in Physical Chemistry”, students must jointly fulfil the prerequisites below:

- a) pass a minimum of four experiments in a semester
- b) achieve a total number of points corresponding to a particular grade, as listed in the table below:

grade		number of points
satisfactory	(3.0)	21-25
satisfactory +	(3.5)	26-30
good	(4.0)	31-34
good +	(4.5)	35-37
very good	(5.0)	38-40

II. Laboratory Rules and Regulations

1. According to OHS regulations, students performing laboratory experiments must wear protective coats throughout the whole duration of classes, and are obliged to use protective glasses. Coats, jackets, etc. must be left in the cloakroom, and bags, backpacks, etc. must be placed in designated lockers or on a rack at the entrance to the premises.
2. Students are obliged to gather in front of the laboratory room on time, and after being allowed on the premises by an assistant, they should enter the room and start performing their experiments in the first 15 minutes of the class.
3. Before starting an experiment, students should make sure that the laboratory equipment is complete and undamaged. Any missing elements must be immediately reported to the supervisor; otherwise the student will be liable for them. It is forbidden to transfer any equipment from one experiment stand to another. Any damage to the laboratory equipment or instruments while performing an experiment must be immediately reported to the supervisor.
4. According to the OHS regulations, students are only allowed to connect instruments to the power supply in the presence of the supervisor. The only exceptions are lighting lamps and electric cookers.
5. Students are prohibited from handling the pressure regulator at the compressed gas cylinder.
6. After completing an experiment every student is obliged to return all equipment to its appropriate location and clean up the laboratory table.
7. According to OHS regulations, it is forbidden to have any meals on the premises of the laboratory.
8. Since experiments are carried out on an ongoing basis, students are allowed to temporarily leave the premises. Students must not miss an experiment that requires supervision.
9. No mobile phones or smartphones may be used during classes.
10. After hearing an alarm, the premises must be evacuated immediately.

Failure to adhere to the rules and regulations given above will result in a lower grade being awarded for “experiment performance”.