

Welcome to the Preparatory Course to the Advanced Master Laboratory!

This laboratory course addresses master students who did not have laboratory courses equivalent to the basic and intermediate laboratory courses, which are part of the bachelor studies at FU Berlin. As its title already reflects, the course does not replace the Advanced Laboratory Course for Master Students, but rather gives the students the possibility to get used to the whole procedure of performing scientific experiments. Thereby the whole procedure of preparing, performing and evaluating the experiments as well as communicating their results closely follows the rules of the Advanced Laboratory Course for Master Students. The total workload however is strongly reduced due to the smaller number of experiments and the slightly less complex experimental techniques.

The Preparatory Course to the Advanced Master Laboratory is considered in the Master's study program as a module "Modern Methods in Experimental Physics A". It comprises either 4 experiments of the intermediate lab (BFP) or 3 experiments of the intermediate and 2 experiments of the basic lab course (GP2). When all experiments are finished successfully, the module will be completed by a 20 minutes oral exam.

The experiments will be performed usually in groups of 2 students and are scheduled in most cases for the same day of the week as the Advanced Laboratory Course for Master Students. The basic lab takes 4 hours per experiment, either 9:00 to 13:00 or 14:00 to 18:00, the experiments of the intermediate lab take the whole day (max. 8:00 to 20:00).

On the web page of this lab course you find a link to the wiki of the lab courses that contains instructions to the experiments. Their introductions should be considered as guidelines for the preparation and execution of the experiments. They consist of a short introduction into the theme of the experiment followed by a listing of the most important topics that you should master before the beginning of the experiment. The books and literature listed in this context are available in the wiki as well. Moreover, in each experimental instruction all the tasks that need to be executed are listed accompanied by special hints on how to perform the experiment and the data analysis.

We wish that the Preparatory Course to the Advanced Master Laboratory contributes to a successful start of your master studies and sets a solid basis for the Advanced Laboratory Course for Master Students in the subsequent semester.

The supervisors of the Preparatory Course to the Advanced Physical Lab Course,
Cornelius Gahl and Martin Weinelt

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