The laboratory courses

In the course of the migration from the Diploma system to the bachelor and master courses, the lab course has been split in two parts. Please pay attention to the admission requirements for the different laboratory courses. In the following sections the laboratory courses and their target groups are presented:

Astronomical laboratory course

The astronomical laboratory course is addressed to bachelor students. The objective of this course is to get first experiences in handling astronomical instruments and to learn basic astrophysical research techniques. The observations are carried out at the student observatory (OST) at the Institute for Physics and Astrophysics at the University of Potsdam in Golm. There are accompanying seminars (every 14 days) in which the students give talks on basic principles and discuss the results of their observations. To each observation belongs an attestation and a short report. The grading for this module is calculated from evaluations of the attestation, the reports, and the seminar talks.

This course belongs to the elective module **PHY_532** ("Astronomie im Praktikum"). It is recommended that all students have visited or currently visit the `Introductory Lecture on Astrophysics and Astronomy`.

- Overview observations: bachelor
- Organisation: bachelor

Astrophysical laboratory course

The astrophysical laboratory course is addressed to master students. Based on the knowledge obtained in the bachelor phase, more comprehensive observations are carried out, which also require a more sophisticated analysis. The observations and the associated analyses are designed to give an insight into scientific work. Reports are expected to be more extensive and detailed in comparison to bachelor course. In the accompanying seminar (every 14 days) the results are presented and discussed, along with talks to present various laboratory course related topics (techniques, observations, objects etc.). The night observations are carried out at the students observatory (OST) at the Institute for Physics and Astrophysics at the University of Potsdam in Golm. The observation of the Sun will be performed at the Einsteinturm on the Telegrafenberg near the city centre.

For students in physics, this course is part of **module PHY_741b** (specialization astrophysics/"Vertiefungsgebiet Astrophysik"). The talks and reports are counted as prerequisite for credits. The credit points are only given after an (oral) overall exam for the whole **module PHY_741b**, which also contains the master lectures `Astrophysics I` and `II`. For students of the new master in astrophysics, this course belongs to **module PHY-751**. More details can be found in admission requirements.

- Overview observations: master
- Organisation: master

Useful information to accomplish successful observations and data analyses

Quick guides:

- How-to write a lab course report
- How-to access to the laboratory course computer
- Convention for directories and filenames on the laboratory course computer
- Brief how-to on the parameter search with Simbad
- Quick guide to Stellarium and how to use it to prepare observations.
- Brief how-to on the GNU data language (GDL)
- Brief how-to on the NIST database
- A virtual laboratory computer for your own computer

Installation guides:

- Installation guide for the GNU data language on a Linux system
- Installation guide for ESO MIDAS on a Linux system