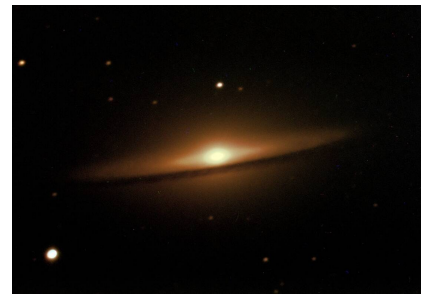


# The laboratory courses

Two lab courses are offered for the bachelor's and master's degree programs. 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.



M 104 - Sombrero galaxy

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 Einsteinurm on the Telegrafenberg near the city center.



NGC 6939

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](#)
- [Organization: master](#)

## Useful information to accomplish successful observations and data analyses

### Observation appointment and observation preparation

Dates for night observations can be reserved (if you are logged in) via the [date booking page](#). To prepare for the observation it is a good idea to browse the wiki and get familiar with the [technology](#) and its [operation](#). Furthermore, we also have articles on [Stellarium](#) as well as on [Simbad](#), which can be helpful for observation preparation.

### Data evaluation

For the data evaluation there is a computer available, which is located in **room 2.009**. This computer can be used either directly on site or [remotely](#).

The data analysis in the astronomical lab course is in most cases relatively simple and can mostly be done on your own computer. Nevertheless, for some of the observations we also offer a supervised data evaluation at the laboratory course computer. In comparison, the astrophysics lab course requires much more extensive evaluations, which are based on the routines and programs available on the laboratory course computer.

### Quick guides:

#### Laboratory course computer:

- How-to [access to the laboratory course computer](#)
- [Convention for directories and filenames](#) on the laboratory course computer
- An [Introduction to the Linux Command Shell](#) by Victor Gedris

#### Observation preparation:

- Brief how-to on the [parameter search with Simbad](#)
- Quick guide to [Stellarium](#) and how to use it to prepare observations.

## Observation evaluation:

### Bachelor:

- Brief how-to on [Fitswork](#)

### Master:

- Brief how-to on the [NIST database](#)
- An extensive guide for [talk preparations](#)
- General information and details on how to prepare a [lab report](#), including [Template](#)

## Installation guides:

- Installation guide for [ESO MIDAS](#) on a Linux system

From:  
<https://polaris.astro.physik.uni-potsdam.de/wiki/> - **OST Wiki**

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