# Advanced Laboratory Course - physics601

| *Module No.* | **physics601** |
|---|---|
| *Category* | Required |
| *Credit Points (CP)* | 7 |
| *Semester* | 1. |

**Module: Advanced Laboratory Course**

*Module Elements:*

| Nr | Course | Course No. | CP | Type | Teaching hours | Semester |
|---|---|---|---|---|---|---|
| 1 | Advanced Laboratory Course | physics601 | 7 | Laboratory | 3+2 | WT/ST |

**Requirements for Participation:**

**Form of Examination:** written report for every laboratory

**Content:** Every student has to complete this Laboratory Course. The course consists of advanced experiments introducing into important subfields of contemporary experimental physics and astrophysics. The lab-course is accompanied by a seminar.

**Aims/Skills:** The students shall gain insight in the conceptual and complex properties of relevant contemporary experiments. The students gain experience in setting up an experiment, data logging and data analysis. They experience the intricacies of forefront experimental research

**Course achievement/Criteria for awarding cp's:**

Before carrying out an experiment, the students shall demonstrate to have acquired the necessary preparatory knowledge. Experiments are selected from the catalogue of laboratory set-ups offered. Cumulative lab-units of >= 9 are required.

Requirements for the examination (written report for every laboratory): successful completion of the experiment and initial oral questioning plus seminar talk

**Length of Module:** 1 semester

**Maximum Number of Participants:** ca. 100

**Registration Procedure:** s. https://basis.uni-bonn.de u. http://bamawww.physik.uni-bonn.de

**Note:**

PDF version of this page.

## Advanced Laboratory Course - physics601

| *Course* | **Advanced Laboratory Course** |
|---|---|
| *Course No.* | physics601 |

| **Category** | **Type** | **Language** | **Teaching hours** | **CP** | **Semester** |
|---|---|---|---|---|---|
| Required | Laboratory | English | 3+2 | 7 | WT/ST |

**Requirements for Participation:** Requirement for experiment 12 is astro800 Introduction to Astrophysics or an equivalent basic knowledge in astrophysics.

**Preparation:** Recommended for experiment 13 is lecture astro841 Radio Astronomy: Tools, Applications, Impacts

**Form of Testing and Examination:** Experiments are selected from the catalogue of laboratory set-ups offered. 9 cumulative lab-units (LU) are required. One of the experiments 1-3 is compulsory for physics students. The experiments 12-14 are compulsory for astrophysics students. Requirements for the module examination (written report for every laboratory): successful completion of the experiment and initial oral questioning

**Length of Course:** 1 semester

**Aims of the Course:** The student shall gain insight in the intricate workings of physics in relevant advanced experiments. The student gains experience in the setting up of a proper experimental environment and experiences the intricacies of forefront experimental research and presenting his/her results.

**Contents of the Course:**

Advanced experiments are carried out. Experimenting time in units of 8 hrs, preparation time and report writing each ~15 hrs. Further details are listed in the catalogue of laboratories. The experiments are chosen among those being offered and after consultation with the head of the course.

In the accompanying seminar the students report about one experiment. This experiment will be selected after consultation with the head of the course.

**Recommended Literature:** Hand outs and literature will be distributed with the registration for an experiment

PDF version of this page.