

**Modules:**

physics700 **Elective Advanced Lectures**  
 physics710 **Experimental Physics**  
 physics720 **Applied Physics**

**Course:**

## **Hands-on Seminar: Experimental Optics and Atomic Physics (E/A)**

**Course No.:** physics740

| Category | Type       | Language | Teaching hours | CP | Semester |
|----------|------------|----------|----------------|----|----------|
| Elective | Laboratory | English  | 2              | 3  | WT/ST    |

**Requirements:****Preparation:**

Fundamentals of optics and quantum mechanics

**Form of Testing and Examination:**

Credit points can be obtained after successful carrying out the experiments and preparing a written report on selected experiments

**Length of Course:**

1 semester

**Aims of the Course:**

The students learn to handle optical setups and carry out optical experiments. This will prepare participants both for the successful completion of research projects in experimental quantum optics/photonics and tasks in the optics industry.

**Contents of the Course:**

Practical training in the field of optics, where the students start their experiment basically from scratch (i.e. an empty optical table). The training involves the following topics:

- diode lasers
- optical resonators
- acousto-optic modulators
- spectroscopy
- radiofrequency techniques

**Recommended Literature:**

Will be given by the supervisor