

Hands-on Seminar: Experimental Optics and Atomic Physics (E/A) - physics740

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| <i>Course</i> | Hands-on Seminar: Experimental Optics and Atomic Physics (E/A) |
| <i>Course No.</i> | physics740 |

| Category | Type | Teaching | | | Semester |
|----------|------------|----------|-------|----|----------|
| | | Language | hours | CP | |
| 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

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