Degree: M.Sc. in Physics (PO von 2006)

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

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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

November 2009