Module title

Advanced Laboratory Course Physics C (Modern Physics, Computer Aided Experiments)

Abbreviation

11-P-PC-152-m01

Module coordinator

Managing Director of the Institute of Applied Physics

Module offered by

Faculty of Physics and Astronomy

ECTS

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Method of grading

Only after succ. compl. of module(s)

Duration

2 semester

Module level

undergraduate

Other prerequisites

Students are highly recommended to complete module 11-P-PB prior to completing module 11-P-PC.

Contents

Physical laws of wave optics, Molecular, Atomic and Nuclear Physics and modern measuring methods using special computerised devices with examples from optics and Solid-State Physics.

Intended learning outcomes

The students are able to build and almost independently operate advanced experimental setups. They are able to record measuring results in a structured manner, even in case of huge data traffic, and to analyse the results by using error propagation and statistics. They are able to evaluate results, to draw conclusions and to present and discuss them in a scientific paper and a presentation.

Courses

(type, number of weekly contact hours, language — if other than German)

P (2) + P (2)

Method of assessment

(type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

Practical assignment with talk (approx. 30 minutes)

Preparing, performing and evaluating (record of readings or lab report) the experiments will be considered successfully completed if a Testat (exam) is passed. Exactly one experiment that was not successfully completed can be repeated once. After completion of all experiments, talk (with discussion; approx. 30 minutes) to test the candidate's understanding of the physics-related contents of the module. Talks that were not successfully completed can be repeated once. Both components of the assessment have to be successfully completed.

Allocation of places

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Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in

Bachelor' degree (1 major) Physics (2015)