

Module title		Abbreviation
Advanced Practical Course Master		11-PFM-111-m01
Module coordinator		Module offered by
Managing Director of the Institute of Applied Physics		Faculty of Physics and Astronomy
ECTS	Method of grading	Only after succ. compl. of module(s)
10	(not) successfully completed	--
Duration	Module level	Other prerequisites
1 semester	graduate	--
Contents		
Principles of Nuclear, Atomic and Molecular Physics, experiments on cryogenic temperatures and correlated systems, properties of solids, surfaces and interfaces. Experiments on the following topics: X-rays - nuclear magnetic resonance (NMR) - quantum Hall effect - optical pumping and spectroscopy in the field of optics - Hall effect - superconductivity - laser - solid-state optics		
Intended learning outcomes		
Knowledge of conducting experiments, analysing and documenting experimental results, basic knowledge of issuing scientific publications, application of modern evaluation systems. The students are familiar with modern experimental methods. They are able to work on a task on the basis of publications, to conduct and evaluate an experiment and to present and discuss their results in a scientific publication.		
Courses (type, number of weekly contact hours, language — if other than German)		
<p>Prep seminar for Fortgeschrittenen-Praktikum Master (Advanced Practical Course Master): S (1 weekly contact hour)</p> <p>Fortgeschrittenen-Praktikum Master (Advanced Practical Course Master) Part 1: P (3 weekly contact hours), German or English</p> <p>Fortgeschrittenen-Praktikum Master (Advanced Practical Course Master) Part 2: P (3 weekly contact hours), German or English</p> <p>Fortgeschrittenen-Praktikum Master (Advanced Practical Course Master) Part 3: P (3 weekly contact hours), German or English</p>		
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)		
<p>This module has the following assessment components</p> <ol style="list-style-type: none"> 1. Prep seminar for Fortgeschrittenen-Praktikum Master (Advanced Practical Course Master): oral examination (approx. 5 to 10 minutes) 2. Lab course in part 1 (Fortgeschrittenen-Praktikum Master/Advanced Practical Course Master Part 1): a) Preparing the experiment will be considered successfully completed if an oral test (approx. 30 minutes) is passed prior to the experiment. b) Performing and evaluating the experiment will be considered successfully completed if a test is passed. Students must prepare an experiment log (approx. 8 pages). 3. Lab course in part 2 (Fortgeschrittenen-Praktikum Master/Advanced Practical Course Master Part 2): a) Preparing the experiment will be considered successfully completed if an oral test (approx. 30 minutes) is passed prior to the experiment. b) Performing and evaluating the experiment will be considered successfully completed if a test is passed. Students must prepare an experiment log (approx. 8 pages). 4. Lab course in part 3 (Fortgeschrittenen-Praktikum Master/Advanced Practical Course Master Part 3): a) Preparing the experiment will be considered successfully completed if an oral test (approx. 30 minutes) is passed prior to the experiment. b) Performing and evaluating the experiment will be considered successfully completed if a test is passed. Students must prepare an experiment log (approx. 8 pages). <p>Language of assessment: German or English</p> <p>Students must register for assessment components 1 through 4 online (details to be announced).</p> <p>Only those students who have attended the prep seminar for Fortgeschrittenen-Praktikum Master (Advanced Practical Course Master) will be allowed to perform experiments as part of the courses Fortgeschrittenen-Praktikum Master Parts 1 through 3.</p>		

Students will be offered one opportunity to retake element a) and/or element b) in the respective semester. To pass an assessment component, they must pass both elements (a and b) in the same semester. To pass this module, students must pass each of the assessment components 1 through 4.

Allocation of places

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Additional information

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Workload

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Teaching cycle

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

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Module appears in

Master's degree (1 major) Physics (2011)
Master's degree (1 major) Nanostructure Technology (2011)
Master's degree (1 major) FOKUS Physics (2011)