

Module description

Module title					Abbreviation	
Magnetism 11-MAG-Int-201-m01						
Module coordinator				Module offered by		
Managing Director of the Institute of Ap		pplied Physics Faculty of Physics and Astronomy				
ECTS Method of grading		Only after succ. compl. of module(s)				
6 numerical grade						
Duration Module level		Other prerequisites				
1 semester graduate		graduate				
Contents						
Dia- and paramagnetism, Exchange interaction, Ferromagnetism, Antiferromagnetism, Anisotropy, Domain struc- ture, Nanomagnetism, Superparamagnetism, Experimental methods to measure magnetic properties. Kondo ef- fect.						
Intended learning outcomes						
Knowledge of the basic terminology, concepts and phenomena of magnetism and the experimental methods to measure them. Skills in constructing simple models and describing the mathematical formalism, and the ability to apply these skills to the mentioned fields of magnetism. Competence to independently solve problems in these fields. Capability of assessing the precision of observations and of their analysis.						
Courses (type, number of weekly contact hours, language — if other than German)						
V (3) + R (1) Module taught in: English						
Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether						
module is creditable for bonus)						
nutes) or c) oral examination (approx. 90 to 120 minutes) or b) oral examination of one candidate cach (approx. 90 minutes) or c) oral examination in groups (groups of 2, approx. 30 minutes per candidate) or d) project report (approx. 8 to 10 pages) or e) presentation/talk (approx. 30 minutes). If a written examination was chosen as method of assessment, this may be changed and assessment may instead take the form of an oral examination of one candidate each or an oral examination in groups. If the method of assessment is changed, the lecturer must inform students about this by four weeks prior to the original examination date at the latest. Assessment offered: In the semester in which the course is offered and in the subsequent semester Language of assessment: English						
Allocation of places						
Additional information						
Workload						
180 h						
Teaching cycle						
Referred to in LPO I (examination regulations for teaching-degree programmes)						
Module appears in						
Master's degree (1 major) Physics International (2020)						
master's degree (1 major) Quantum Engineering (2020)						
Master's degree (1 major) Quantum Engineering (2024)						
Master'	Master's degree (1 major) Physics International (2024)					

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