Module title
Modern Physics 2

Abbreviation
11-P-MP2-092-m01

Module coordinator
Managing Director of the Institute of Applied Physics

Module offered by
Faculty of Physics and Astronomy

ECTS
6

Method of grading
Only after succ. compl. of module(s)

Numerical grade
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Duration
1 semester

Module level
undergraduate

Other prerequisites
Prior successful completion of modules 11-P-E and 11-P-MP1 is recommended. Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semester. For assessment at a later date, students will have to obtain the qualification for admission to assessment anew.

Contents
Mechanical, dielectric and magnetic properties of molecules, rotational, vibrational and electronic excitation of molecules, measuring methods, structure of solids, scattering methods, lattice vibrations, thermal properties of insulators.

Intended learning outcomes
Understanding of the structure of molecules and chemical bonding, knowledge of experimental methods for the examination of molecules, understanding of the structure of crystalline solids, their modelling as translation-invariant lattices and the consequences.

Courses
V + Ü (no information on SWS (weekly contact hours) and course language available)

Method of assessment
(a) written examination (approx. 90 minutes; usually chosen) or (b) oral examination of one candidate each or oral examination in groups (approx. 20 minutes per candidate)

Allocation of places
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Additional information
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Referred to in LPO I (examination regulations for teaching-degree programmes)
§ 77 (1) 1. b) Physik "Fortgeschrittene Experimentalphysik"

Module appears in
First state examination for the teaching degree Gymnasium Physics (2009)