

PHYSICS

Introductory Solid State Physics

Module assigned to 1st semester

Identification Code	2288870080
ECTS-Points	5
Credit Hours	4
Language	english
Length of the Module	1 semester
Date and Capacity	winter term 30 students
Responsible Lecturer	Prof. Dr. Paul Ziemann
Further Lecturer	Prof. Dr. Paul Ziemann
Study Programme	Master degree in Advanced Materials compulsory
Prerequisites	BSc degree
Study Objectives	This introductory course aims at providing the basic knowledge as well as some fundamental practical tools of Solid State Physics necessary to understand all the forthcoming more advanced Materials Science courses
Module Contents	a) Basic Classification of Solids by Bonds & Structure b) Lattice Vibrations & Phonons c) Electronic properties of Solids
Literature	- Handouts
Teaching Methods	Introductory Solid State Physics (L), 2 h/week Introductory Solid State Physics (E), 1 h/week
Estimation of working load	42 h lecture (presence) 14 h exercises (presence) 50 h preparation and postprocessing lecture 28 h solution of exercises, postprocessing 16 h exam preparation Total: 150 h
Examinations	written examination
Grade Composition	exam result
Usability	MSc course of studies Advanced Materials