

<b>Module title</b>		<b>Abbreviation</b>
Basic Practical Course B (Nanostructure Technology)		11-P-PB-N-092-m01
<b>Module coordinator</b>		<b>Module offered by</b>
Managing Director of the Institute of Applied Physics		Faculty of Physics and Astronomy
<b>ECTS</b>	<b>Method of grading</b>	<b>Only after succ. compl. of module(s)</b>
6	(not) successfully completed	11-P-PA
<b>Duration</b>	<b>Module level</b>	<b>Other prerequisites</b>
1 semester	undergraduate	--
<b>Contents</b>		
Physical laws of mechanics, thermodynamics, optics, science of electricity, vibration and waves, Atomic and Nuclear Physics, wave optics. Basic measuring methods using computers and storage oscilloscopes.		
<b>Intended learning outcomes</b>		
The students know and have mastered physical measuring methods and experimenting techniques. They are able to independently plan and conduct experiments, to cooperate with others, and to document the results in a measuring protocol. They are able to evaluate the measuring results on the basis of error propagation and of the principles of statistics and to draw, present and discuss the conclusions.		
<b>Courses</b> (type, number of weekly contact hours, language – if other than German)		
Klassische Physik (Classical Physics, KLP): P (2 weekly contact hours) Elektrizitätslehre und Schaltungen (Electricity and Circuits, ELS): P (2 weekly contact hours) Wellenoptik (Physical Optics, WOP): P (2 weekly contact hours) Atom- und Kernphysik (Atomic and Nuclear Physics, AKP): P (2 weekly contact hours) Computer und Messtechnik (Computers and Measurement Technology, CMT): P (2 weekly contact hours)		
<b>Method of assessment</b> (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"> <li>1. Lab course in part 1: a) Preparing, performing and evaluating the experiments will be considered successfully completed if a Testat (exam) is passed. b) Talk (with discussion) to test the students' understanding of the physics-related contents of the course (approx. 30 minutes).</li> <li>2. Lab course in part 2: a) Preparing, performing and evaluating the experiments will be considered successfully completed if a Testat (exam) is passed. b) Talk (with discussion) to test the students' understanding of the physics-related contents of the course (approx. 30 minutes).</li> </ol> <p>Students must register for assessment components 1 and 2 online (registration deadline to be announced). Students will be offered one opportunity to retake element a) and/or element b). To pass an assessment component, they must pass both elements a) and b). To pass this module, students must successfully complete two out of the five courses. Students must take exactly one course each in the areas KLP and ELS as well as one course in the areas WOP, AKP and CMT. Students must attend KLP or ELS courses prior to attending WOP, AKP or CMT courses. To pass this module, students must pass both assessment component 1 and assessment component 2.</p>		
<b>Allocation of places</b>		
--		
<b>Additional information</b>		
--		
<b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)		
<p>§ 53 (1) 1. a) Physik Mechanik, Wärmelehre, Elektrizitätslehre, Optik, der speziellen Relativitätstheorie  § 53 (1) 1. b) Physik Aufbau der Materie  § 53 (1) 1. c) Physik physikalische Grundpraktika  § 77 (1) 1. b) Physik "Fortgeschrittene Experimentalphysik"  § 77 (1) 1. d) Physik "physikalische Praktika"</p>		



**Module appears in**

Bachelor' degree (1 major) Nanostructure Technology (2010)