

Module title		Abbreviation
FOKUS Research Module Nanoelectronics		11-FM-NEL-092-m01
Module coordinator		Module offered by
chairperson of examination committee		Faculty of Physics and Astronomy
ECTS	Method of grading	Only after succ. compl. of module(s)
10	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	graduate	--
Contents		
<p>Specific and advanced knowledge for independent scientific work in the field of nanoelectronics. Transport phenomena that cannot be observed in classical electronic switches appear in highly miniaturised electronic components. The research module provides insights into production techniques, characteristics and application fields of modern nanoelectronic components, which function on the basis of ballistic and coherent transport.</p>		
Intended learning outcomes		
<p>The students have special and advanced knowledge of independent scientific work in a current research area of nano-electronics. They have mastered the basics of electronics of nanostructures in theory and practice. They know functions and applications of respective components and are able to reproduce the acquired knowledge, to apply the acquired methods and to summarise a field of the current research area in an oral presentation.</p>		
Courses (type, number of weekly contact hours, language — if other than German)		
<p>Nano-Optik (Nano-Optics): V (2 weekly contact hours) + Ü/P (1 weekly contact hour), German or English, once a year (summer semester) Kompaktseminar Nano-Optik und Spektroskopie (Block Taught Seminar Nano-Optics and Spectroscopy): S (2 weekly contact hours), German or English, details on availability to be announced (block taught seminar (3 days), usually held during semester break)</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. Topics covered in lectures and exercises: written examination (approx. 90 minutes) or talk (approx. 30 minutes) or oral examination of one candidate each or oral examination in groups (approx. 30 minutes) or project report (approx. 8 pages) 2. Seminar: talk (approx. 30 to 45 minutes) <p>Assessment components 1 and 2 will be offered in German or English. Students must register for assessment components 1 and 2 online (details to be announced). Assessment component 1 will be offered once a year in the summer semester; details on when assessment component 2 will be offered to be announced. To pass this module, students must pass both assessment component 1 and assessment component 2.</p>		
Allocation of places		
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Additional information		
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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) FOKUS Physics (2010)		