Preparatory Course Mathematics  11-P-VKM-092-m01

Managing Directors of the Institute of Applied Physics and the Institute of Theoretical Physics and Astrophysics
Faculty of Physics and Astronomy

ECTS  Method of grading  Only after succ. compl. of module(s)
2  (not) successfully completed  --

Duration  Module level  Other prerequisites
1 semester  undergraduate  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
Principles of mathematics and elementary calculation methods from school and partially beyond, especially for the introduction to and preparation of the modules of Experimental and Theoretical Physics. 1. Basic geometry and algebra 2. Coordinate systems and complex numbers 3. Vectors - vectored values 4. Differential calculus 5. Integral calculus

Intended learning outcomes
The students know the principles of mathematics and elementary calculation methods which are required for successfully studying Theoretical and Experimental Physics.

Courses (type, number of weekly contact hours, language — if other than German)
T (no information on SWS (weekly contact hours) and course language available)

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)
discussion and exercises (approx. 15 minutes)
Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009.

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
Bachelor’ degree (1 major) Physics (2010)
Bachelor’ degree (1 major) Physics (2012)
Bachelor’ degree (1 major) Nanostructure Technology (2012)
First state examination for the teaching degree Grundschule Physics (2009)
First state examination for the teaching degree Hauptschule Physics (2009)
First state examination for the teaching degree Realschule Physics (2009)
First state examination for the teaching degree Gymnasium Physics (2009)
First state examination for the teaching degree Mittelschule Physics (2013)
No final examination (2010)