**Module title**: Mechanical and Thermal Material Properties  
**Abbreviation**: 11-E5T-092-m01

**Module coordinator**: Managing Director of the Institute of Applied Physics

**Module offered by**: Faculty of Physics and Astronomy

**ECTS**: 5  
**Method of grading**: Only after succ. compl. of module(s)

**Numerical grade**: --

**Duration**: 1 semester  
**Module level**: graduate

**Other prerequisites**: Admisssion prerequisite to assessment: successful completion of approx. 50% of exercises. 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**

Physical laws of solids: Bonding and structure, lattice dynamics, thermal and mechanical properties.

**Intended learning outcomes**

The students have knowledge of mechanical/thermal material characteristics.

**Courses**

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

**Method of assessment**

(a) written examination (approx. 90 minutes) or (b) oral examination of one candidate each or oral examination in groups (approx. 30 minutes per candidate) or (c) project report (approx. 10 pages, time to complete: 1 to 4 weeks) or (d) presentation/seminar presentation (approx. 30 minutes)

**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) Technology of Functional Materials (2010)  
Master's degree (1 major) Technology of Functional Materials (2009)  
Master's degree (1 major) Functional Materials (2012)