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respect for the diversity of cultures, work in a team of professionals of different disciplines [K1A_K03]								

Assessment methods of study outcomes

Written examination covering the topics discussed in the lecture. Written examination regarding the material discussed in the exercises. **Course description** Introduction to solid state physics. Solids and Materials Engineering. Breakdown of solids used in engineering practice. Breakdown properties of solids. The atomic structure of solids (basic types of networks, examples of network solids, diffraction on crystals). Imperfections in crystals networks - dislocations. The movement of atoms in the crystal networks - diffusion. Mechanical properties of solids (elasticity, plasticity, fracture, fatigue, creep). Electric and magnetic properties of solids. Thermal properties. Porous solid centers. Physical and mathematical models of solids. **Basic bibliography:** 1. C. Kittel, Wstęp do fizyki ciała stałego, PWN, Warszawa 1974 2. B. N. Buszmanow, J. A. Chromow, Fizyka ciała stałego, WNT, Warszawa 1973 3. D. R. Askeland, The science and engineering of materials, PWS Publishers, Boston 1985 Additional bibliography: 1. M. F. Ashby, D. R. H. Jones, Materiały inżynierskie, t.1 i 2, WNT, Warszawa 1996 Result of average student's workload Time (working Activity hours) 15 1. Participation in the lecture 2. Fixation of the lecture 5 2 3. Consultation 4. Preparation for the exam / credit 6 2 5. Participation in exams / completing 6. Participation in exercises 30 7. Strengthening exercises content 10 8. Consultations on the content provided on exercises 6 9. Preparing to pass 6 10. Participation in completing 2 Student's workload

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Source of workload	hours	ECTS		
Total workload	84	3		
Contact hours	57	2		
Practical activities	0	0		