COURSE DESCRIPTION CARD - SYLLABUS

Course name
Metallic glasses [S2IMat1-Nanomat>SM]

Course

Field of study
Materials Engineering

Year/Semester
1/2

Area of study (specialization)
Nanomaterials

Profile of study
general academic

Level of study
second-cycle

Course offered in
Polish

Form of study
full-time

Requirements
elective

Number of hours

Lecture
15

Laboratory classes
15

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

2,00

Coordinators

dr hab. inż. Grzegorz Adamek
grzegorz.adamek@put.poznan.pl

Lecturers

Prerequisites

Knowledge: basic in chemistry, physics, materials science Skills: logical thinking, using information obtained from the library and the Internet Social competences: understanding the need to learn and acquire new knowledge

Course objective

1. To provide students with basic knowledge of metallic glasses, within the scope defined by the content of the curriculum appropriate for the field of study 2. Developing students" skills in solving simple problems related to the selection of metallic glasses, distinguishing based on the acquired knowledge 3. Shaping students" teamwork skills

Course-related learning outcomes

Knowledge:
1. student should characterize metallic glasses - [k_w04, k_w10]
2. the student should characterize the basic processes of producing metallic glasses - [k_w08]

Skills:

1. the student is able to choose metallic glasses depending on the application - [k_u01, k_u13]
2. the student is able to propose the use of metallic glasses - [k_u01, k_u13]
3. the student is able to carry out tests of metallic glasses - [k_u08, k_u09, k_u10]

Social competences:
1. the student is able to work in a group - [k_k03]
2. the student is aware of the role of metallic glasses in the modern economy and for society - [k_k02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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Lecture: Pass on the basis of a test consisting of 5 general questions (pass if the correct answer to at least 3 questions: <3? Ndst, 3? Dst, 3.5? Dst +, 4? Db, 4.5? Db +, 5? ? bdb) carried out at the end of the semester.
Laboratory exercises: Assessment based on an oral or written answer regarding the content of each project, a report on each project according to the instructions of the teacher. To be passed, all projects must be passed (positive grade from the answer and the project).

Programme content

Lecture: Pass on the basis of a test consisting of 5 general questions (pass if the correct answer to at least 3 questions: <3? Ndst, 3? Dst, 3.5? Dst +, 4? Db, 4.5? Db +, 5? ? bdb) carried out at the end of the semester.
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Course topics

Teaching methods

1. Lecture: multimedia presentation, presentation illustrated with examples given on the board,
2. Laboratory exercises: practical exercises, discussion and preparation of the results in the form of a report, formulation of conclusions concerning the issues raised during the classes, case studies.

Bibliography

Basic
1. K. Sudzuki, Amorfnyje metally, Metallurgia, Moskwa 1987
Additional
1. Czasopisma naukowe Inżynieria materiałowa, Journal of Non-Crystalline Solids

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	34	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	15	1,00