

Level: bachelor				
Course title: Amorphous materials				
Status: elective				
ECTS: 6				
Requirements:				
Learning objectives Introduction to the field of noncrystalline systems.				
Learning outcomes After completing the course, students should have: <ul style="list-style-type: none"> - Basic knowledge on how to explore and follow the professional literature; - Knowledge about specificity of the particular types of amorphous materials; - Knowledge in processing and technology of materials; - Ability to implement certain technical solutions. 				
Syllabus <i>Theoretical instruction</i> Non-crystalline materials. Amorphous materials. The ways of obtaining glasses and amorphous films. Physicochemical properties of amorphous materials. Amorphous semiconducting materials. General properties. The electron state theory in amorphous semiconductors. Alloying of amorphous semiconductors. Chalcogenide amorphous semiconductors. Thin films. Photo induced changes. Holography. Amorphous silicon and germanium. Amorphous selenium and tellurium. Amorphous metals. Complex amorphous systems. Electric and dielectric properties. Optical and spectroscopic properties. <i>Practical instruction</i> Experimental exercises follow the content of lectures.				
Weekly teaching load				Other:
Lectures: 3	Exercises: 1	Other forms of teaching: 1	Student research:	