

Level: master				
Course title: Superconductive materials and technologies				
Status: elective				
ECTS: 9				
Requirements: none				
Learning objectives Qualifying students for direct inclusion into modern aspects of research of one of the most important natural phenomena.				
Learning outcomes Cognition of basic properties of low and high temperature superconductive materials, types of superconductors and possibilities of their production and practical application.				
Syllabus <i>Theoretical instruction</i> Phenomena and properties of superconductive state. Superconductive macroscopic quantum effects. Superconductivity mechanism. Cooper pairs and BCS theory. Types of superconductors. SP materials: classical, high temperature and organic superconductors. Application of superconductivity and perspectives. <i>Practical instruction</i> Solving practical problems related with this area of science.				
Weekly teaching load				Other:
Lectures: 3	Exercises: 1	Other forms of teaching: 1	Student research:	