

Level: master				
Course title: Nanomaterials in medicine				
Status: elective				
ECTS: 7				
Requirements: none				
Learning objectives To expand the knowledge on principles of nanoscience and technology of novel materials in nanomedicine. The course deals with the fundamental and most significant terms in nanomedicine, physical principles in nanotechnology of drug carriers, chemical interactions between nanocarrier and drug, nanotechnology in drug delivery. In addition, the course is intended to enable and educate students to use scientific literature and patent search, as well as to improve their writing and presentation skills.				
Learning outcomes Students will be able to search scientific literature and patents, recognise fundamental issues concerning nanomaterials in medicine, and deal with basic knowledge of result interpretation obtained by state-of-the-art instruments for nanomaterial characterisation.				
Syllabus <i>Theoretical instruction</i> Basic principles in nanomedicine, synthesis of nano drug carriers, nanomaterials and their biocompatibility, controlled drug release. Nanotechnology in the past, present and future. <i>Other forms of teaching</i> Theoretical approach to state-of-the-art techniques of characterisation and determination of nanomaterials in biological models.				
Weekly teaching load				Other:
Lectures: 5	Exercises: 3	Other forms of teaching: 2	Student research:	