Course code	**MK102**		
Course title	**PHYSICAL ORGANIC AND COMPUTATIO NAL CHEMISTRY**		
General information			
Study programme	Graduate study „Medical chemistry“	Academic year	
Lecturer	Doc. Dr. Sc. Željko Svedružić		
Status	**Required**	Elective	
ECTS system			**6**
Course objectives			
To acquaint students with basic principles of physical organic and computational chemistry and its application in studying relation between physico-chemical and biological properties of active components of drugs.			
Course description			
- basic principles of physical organic chemistry - organic reaction mechanisms and the methods for their investigation - influence of structural and electronic factors on properties of molecules and their reactivity - acids and bases and their application in catalysis of organic reactions - introduction to computational chemistry (molecular mechanics, quantum mechanics, molecular dynamics) - brief overview of computational chemistry methods - application to problems of physical organic chemistry: molecular properties and reaction mechanisms			
Learning outcomes			
Students will be qualified to competently apply physical-organic and computational chemistry concepts in design and synthesis of novel potential drugs.			