

<b>Study Programme:</b> Master Academic Studies in Chemistry			
<b>Course Unit Title:</b> Supramolecular chemistry			
<b>Course Unit Code:</b> IHO-503			
<b>Name of Lecturer(s):</b> Assistant professor Marina Savić			
<b>Type and Level of Studies:</b> Master of Science Degree			
<b>Course Status (compulsory/elective):</b> Elective			
<b>Semester (winter/summer):</b> Summer			
<b>Language of instruction:</b> English			
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face			
<b>Number of ECTS Allocated:</b> 5			
<b>Prerequisites:</b> none			
<b>Course Aims:</b> To provide students with understanding of the nature and magnitude of intermolecular interactions and solvation effects which cause the association between molecules and/or ions through non-covalent bonding interactions.			
<b>Learning Outcomes:</b> Students learn to assess the nature and severity of possible interactions between the molecules and ions of various sizes.			
<b>Syllabus:</b> <i>Theory</i> Principles of molecular recognition. The characterization of supramolecular systems. Complexation of cations and anions and their technological applications. Synthesis of macrocyclic compounds. Crown ethers. Cryptands. Spherands. Complexation of neutral molecules in aqueous solution. Receptors for hydrogen connection. Chiral recognition. Cyclophanes. Cyclodextrins. Metallo-receptors. Non-covalent interactions. Molecular self-assembling of nanostructures. Catenanes and rotaxane. Synthesis of receptors. The template effect. Supramolecular catalysts. Application of supramolecular chemistry. <i>Practice</i> Laboratory exercises follow the lecture teaching material. Synthesis of the selected supramolecules. Characterization of supramolecules. The template effect.			
<b>Required Reading:</b> 1. P. D. Beer, P. A. Gale, D. K. Smith; <i>Supramolecular Chemistry</i> , Oxford, University Press, 1999. 2. J.-M Lehn; <i>Supramolecular Chemistry</i> , 1995.			
<b>Weekly Contact Hours:</b>	<b>Lectures:</b> 2 (30)	<b>Practical work:</b> 2 (30)	
<b>Teaching Methods:</b> Lectures, laboratory work, desk study projects, seminar(s)			
<b>Knowledge Assessment (maximum of 100 points):</b> 100			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	5	written exam	20
Practical work	20	oral exam	15
Preliminary exam(s)	20	.....	
Seminar(s)	20		