

<b>Study Programme:</b> Master Academic Studies in Chemistry			
<b>Course Unit Title:</b> Molecular spectroscopy			
<b>Course Unit Code:</b> IHN-505			
<b>Name of Lecturer(s):</b> Associate professor Branislav Jović			
<b>Type and Level of Studies:</b> Master of Science Degree			
<b>Course Status (compulsory/elective):</b> Compulsory			
<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> The goal of the course is acquiring profound theoretical and practical knowledge of particular topics of molecular spectroscopy, depending on the subject of a master thesis.			
<b>Learning Outcomes:</b> Students should be able to apply the acquired broad knowledge of the relevant topics of molecular spectroscopy to improve their master thesis and the overall future chemical education.			
<b>Syllabus:</b> <i>Theory</i> Rotational spectra of molecules. Spectroscopy in the microwave and far infrared radiation range. Oscillatory and oscillatory-rotational spectra of molecules. Spectra in the IR region. Raman spectroscopy. The electronic spectra of molecules. Spectra in the visible and UV range. NMR spectroscopy. ESR spectroscopy.			
<b>Required Reading:</b> 1. J.D. Graybeal, Molecular Spectroscopy, McGraw-Hill, New York, 1988			
<b>Weekly Contact Hours:</b>	<b>Lectures:</b> 2	<b>Practical work:</b> 2	
<b>Teaching Methods:</b> Lectures, laboratory work			
<b>Knowledge Assessment (maximum of 100 points):</b> 100			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	10	written exam	20
Practical work	20	oral exam	30
Preliminary exam(s)	20	.....	