

<b>Study Programme:</b> Chemistry			
<b>Course Unit Title:</b> Chemical Analysis of Medications			
<b>Course Unit Code:</b> IHA-408			
<b>Name of Lecturer(s):</b> Associate professor Borko Matijević			
<b>Type and Level of Studies:</b> Bachelor Academic Studies			
<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> 6			
<b>Prerequisites:</b> None			
<b>Learning objectives</b> Introducing students to the legal regulations, the method of analysis and quality control of drugs of different origin and structure. Mastering the procedures of collecting and preparing the sample, depending on the type of analysis as well as its chemical analysis. Developing a way of thinking towards the proper selection of suitable analytical methods for drug analysis. Processing the results obtained and their interpretation. Establishing the connection between the chemical structure and the pharmacological action of the drug.			
<b>Learning outcomes</b> The students will be able to find and use the information necessary for proper analysis of the appropriate samples. They will learn to select the appropriate method depending on the requirements of the analyzed sample of the drug and perform the preparation of the sample. Also, they will be able to independently do chemical analysis of the medicines, process and interpret the results obtained.			
<b>Syllabus</b> <i>Theoretical instruction</i> Getting acquainted with the legal regulation of medicaments analysis. Procedure in pharmaceutical analysis and control of drugs. Methods of identifying medicinal substances. Analysis of individual drug groups according to Ph. Eur., USP and other pharmacopoeias. Review of methods for the chemical analysis of drugs: titrimetric by conventional, spectroscopic, separation, heating and other modern methods. The correct method selection for the given analysis. Statistical methods in analysis of medicament.  <i>Practical instruction</i> Testing and quality control of certain groups of drugs according to official pharmacopoeial procedures. Qualitative analysis of medicinal substances. Application of different classical and instrumental methods in the quantitative analysis of medicament samples from different groups of activities. Examination of medicaments purity.			
<b>Required Reading:</b> 1. Weekly teaching load			
<b>Weekly Contact Hours:</b> 75	<b>Lectures:</b> 45	<b>Practical work:</b> 30	
<b>Teaching Methods:</b> Lectures and laboratory work			
<b>Knowledge Assessment (maximum of 100 points):</b> 100			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Lab exercises	30	Written exam	40
		Oral exam	30