

Table 5.2 Course specification

Type and level of studies: Bachelor			
Course name: CHEMICAL ANALYSIS OF DRUGS			
Course status: elective course			
Number of ECTS credits: 6			
Requirement: No requirement			
Course aim			
Introducing students to legal regulations, methods of analysis and quality control of medicines of different origin and structure. Mastering the sampling and preparation procedures, depending on the type of analysis and chemical composition of the sample. Developing a mindset towards the proper selection of suitable analytical methods for drug analysis. Processing the results obtained and their interpretation. Making a connection between chemical structure and pharmacological action of the drug.			
Course outcome			
The student will be able to independently find and use the information necessary for properly analysis of the samples. They will learn to choose an appropriate method depending on the requirements of the analyzed drug sample and to prepare the sample. They will be able to independently perform chemical analysis of drugs, process and interpret the results obtained.			
Course content			
<i>Theory</i>			
Introducing with the legal regulation of drug analysis. Procedure in pharmaceutical analysis and drug control. Ways to identify medicinal substances. Analysis of individual drug groups according to Ph. Eur., USP and other pharmacopoeias. Review of methods in chemical analysis of drugs: standard titrimetric, spectroscopic, separation, thermal and other modern methods. Proper choice of method for given analysis. Statistical methods in drug analytics.			
<i>Practice: Practical classes, OFT, SRW</i>			
Testing and quality control of certain drug groups according to official pharmacopoeial procedures. Qualitative analysis of medicinal substances. Application of different classical and instrumental methods in quantitative analysis of drug samples from different activity groups. Drug purity testing.			
Literature			
1. D.G. Watson, Pharmaceutical analysis – A textbook for pharmacy students and pharmaceutical chemistry, 4 th ed., Elsevir, 2016.			
2. S. Ahuja, S. Scypinski, Handbook of modern pharmaceutical analysis, 2 nd ed., Elsevir, 2011.			
3. Authorized Lectures			
Number of classes of active teaching: 5 (75)			
Lectures:	Practice:		
3 (45)	2 (30)		
Teaching methods			
Lectures, experimental practice, seminar			
Assessment of knowledge (maximum of 100 points)			
Pre-exam obligations	Points	Final exam	Points
activity during lecture classes	5	written exam	20
practical teaching	10	oral exam	20
colloquia	30		
seminar	15		