

Table 5.2 Course specification

Type and level of studies: Bachelor of Science Degree			
Course name: Molecules significant for medicine			
Course status: elective			
Number of ECTS credits: 5			
Requirement: None			
Course aim Acquiring knowledge about molecules of potential medical importance. Introduction to the discovery, obtaining and pharmacological effects of selected biologically active molecules and biomolecules.			
Course outcome By the end of this course, students will be able to: explain the basic methods of obtaining molecules and biomolecules significant for medicine, as well as to understand their pharmacological effect.			
Course content <i>Theory</i> Elements and small molecules of medical importance. Discovery of selected biomolecules and their importance: urea, glucose, steroidal compounds, porphyrin hem, vitamin B12 and others. Discovery of the most important antibiotics and other antimicrobial drugs, their synthesis and biological effects: penicillin, erythromycin A, amphotericin B, vancomycin and others. Discovery of the most important medicaments (acetylsalicylic acid, morphine, quinine, avermectin). Antitumour agents: discovery, synthesis and medical significance (paclitaxel). Selected toxins: discovery, synthesis and medical importance (strychnine, palytoxin, brevetoxin, etc.). Discovery and significance of lesser known molecules significant for medicine. <i>Practice: Practical classes, OFT, SRW</i> -			
Literature 1. J. Francuz: Molecules significant for medicine, internal script (ePMF), 2019. 2. K. C. Nicolaou, T. Montagnon: Molecules that changed the world, WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, 2008.			
Number of classes of active teaching			Other classes
Lectures: 30	Practice:	OFT: 30	
Teaching methods Lectures, desk study projects, seminar(s)			
Assessment of knowledge (maximum of 100 points)			
Pre-exam obligations	Points	Final exam	points
activity during lecture classes	10	written exam	70
seminars	20		