

Level: Bachelor				
Course title: Molecules significant for medicine (IB-604)				
Status: Elective				
ECTS: 5				
Requirements: none				
Learning objectives Acquiring knowledge about molecules of potential medical importance. Introduction to the discovery, obtaining and pharmacological effects of selected biologically active molecules and biomolecules.				
Learning outcomes 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.				
Syllabus <i>Theoretical instruction:</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>Practical instruction:</i> -				
Weekly teaching load				Other:
Lectures: 2	Exercises:	Other forms of teaching: 2	Student research:	