

<b>Level:</b> PhD				
<b>Course title:</b> Chemistry of Biologically Active Organic Compounds (DSH-713)				
<b>Status:</b> Elective				
<b>ECTS:</b> 15				
<b>Requirements:</b> None				
<b>Learning objectives:</b> Course is designed to acquaint students with chemistry of biologically active organic compounds.				
<b>Learning outcomes:</b> Capacity to apply theoretical and practical knowledge in the field of biologically active organic compounds as well as optimal synthetic procedures in order to solve synthetic problems in the domain of research work.				
<b>Syllabus</b>				
<i>Theoretical instruction:</i> Steroidal and nonsteroidal anti-oxidants as therapeutics. Nonsteroidal anti-inflammatory agents (NSAIDs). Selected heterocyclic biologically active compounds. Steroidal anti-tumor agents. Andriandrogenic and antiestrogenic agents, synthesis and use in cancer treatment. Nonsteroidal antitumor agents. Chemical transformations and pharmacological importance of the bile acids. Therapeutic agents based on the progestins and corticosteroids. Synthesis and use of anabolic-androgenic steroids. Antidepressants and antidiabetic agents. Chemistry of antibiotics. Selected enzyme inhibitors in clinical use. Synthesis of the selected biologically active molecules with applications in biomedicine. Structural analysis of selected biologically active organic compounds.				
<i>Practical instruction</i> Synthesis of the selected organic compounds and confirming their structures by spectroscopic methods.				
<b>Weekly teaching load</b>				Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5	