

Level: PhD				DCX603
Course title: Selected Chapters in Organic Chemistry				
Status: elective				
ECTS: 15				
Requirements: none				
Learning objectives: To provide students with modern aspects of the selected chapters in organic chemistry.				
Learning outcomes: Students will acquire the theoretical and practical knowledge in the selected fields of organic chemistry. Acquired knowledge will allow students to extend understanding of important topics in modern synthetic chemistry, as well as of general organic chemistry and develop capacity to select and apply synthetic procedures in order to solve synthetic problems in the domain of research work.				
Syllabus <i>Theoretical instruction:</i> Synthesis of complex organic molecules with stereochemical aspects. Nanochemistry. Click chemistry. Microwave synthesis. Directed Aldol Reactions. Claisen and Cope rearrangements. Asymmetric epoxidation of allylic alcohols. Catalytic asymmetric dihydroxylation of alkenes. Aminohydroxylation of alkenes. Conformational analysis of complex organic compounds. Synthesis of pharmacologically active organic compounds. Organic Synthesis with Transition Metal Complexes. Domino reactions in organic synthesis. Various chapters in accordance with the PhD thesis. <i>Practical instruction</i> Synthesis of the selected organic compounds and confirming their structures by spectroscopic methods.				
Weekly teaching load				Other: /
Lectures: 5	Exercises:	Other forms of teaching: /	Student research: 5	