

Level: master				
Course title: Structure and mechanism in organic chemistry				IHO-505
Status: elective				
ECTS: 6				
Requirements: enrolment to master study				
Learning objectives The aim of the course is to familiarize students with the modern aspects regarding the structure of compounds and mechanisms of organic reactions. Training students for independent analysis of its structure and mechanisms of organic reactions and predict the course of chemical reactions.				
Learning outcomes Capability of students to independently predict and critically evaluate -on the basic of physico-chemical parameters- the possible course and mechanism of organic reactions.				
Syllabus <i>Theoretical instruction</i> Concepts and models in organic chemistry. Stereochemistry. Conformational analysis and molecular mechanics. Application of molecular orbital theory and valence bond theory. Potential energy surfaces, reaction coordinate diagrams and reactive intermediates. Methods of studying organic reactions. Acid-base catalyzed reactions. Substitution, addition, elimination reactions. Concerted reactions and selection rules for pericyclic reactions. Photochemical reactions. <i>Practical instruction</i> Laboratory exercises will follow the lecture teaching material.				
Weekly teaching load				Other:
Lectures:2	Exercises:3	Other forms of teaching:	Student research:	