

<b>Level:</b> master				
<b>Course title:</b> New methods and strategies in asymmetrical synthesis				IHO-501
<b>Status:</b> elective				
<b>ECTS:</b> 8				
<b>Requirements:</b> none				
<b>Learning objectives</b> Improved knowledge in modern methods of asymmetric synthesis and stereo controlled enantioselective catalysis.				
<b>Learning outcomes</b> Students skilled to independently create enantioselective synthetic routes for preparation of organic molecules.				
<b>Syllabus</b> <i>Theoretical instruction</i> Advanced modern methods in asymmetric synthesis and its application in the total synthesis of natural products and synthetic products. Preparation and reactivity oxonium and iminium ions. Chiral acetals in synthesis. Conformational analysis and steric controls in macrocyclic rings. Asymmetric catalysis. Designing of catalysts and ligands. Activation of substrate. Important catalytic asymmetric reactions in organic synthesis. Allylic substitution reactions. Chirons.  <i>Practical instruction</i> The exercises follow the lecture material. Enantioselective synthesis of the selected compounds. Evaluation of key stages in the total synthesis of the selected product in the light of stereo selectivity and asymmetric catalysis.				
<b>Weekly teaching load</b>				Other:
Lectures: 2	Exercises: 3	Other forms of teaching: 1	Student research:	