

<b>Level:</b> Specialist academic studies of chemistry				
<b>Course title:</b> Mechanisms of organic reactions (DSH-608)				
<b>Status:</b> elective				
<b>ECTS:</b> 15				
<b>Requirements:</b> None				
<b>Learning objectives</b> Knowledge in organic reactions, mechanisms and reactivity of organic molecules.				
<b>Learning outcomes</b> Students are introduced to knowledge about organic reactions, mechanisms, as well as reactivity of organic molecules, their structures and also track reaction conditions.				
<b>Syllabus</b> <i>Theoretical instruction</i> Selected organic reactions and their mechanisms. Aliphatic nucleophilic substitution at an allylic, vinyl and trigonal carbon. The participation of neighbouring group by $\pi$ and $\sigma$ bonds. The influence of nature nucleophilic reagent and groups which could be substituted. Aliphatic electrophilic substitution; monomolecular (SE1), bimolecular (SE2 and SEi). Aromatic electrophilic substitution. Aromatic nucleophilic substitution. Addition reactions: electrophilic addition reactions, nucleophilic addition reactions at carbon-oxygen bond. Elimination reactions. Reactions of rearrangements. Pyrolytic eliminations. Molecular rearrangements: aniontropic and cationtropic rearrangements. Valent isomerizations.				
<b>Weekly teaching load</b>				Other: /
Lectures: 5	Exercises: /	Other forms of teaching: /	Student research: 5	