Level: bachelor

Course title: Organic synthesis ZMH-404

Status: elective

ECTS: 8

Requirements: none

Learning objectives

The goal of this course is to familiarize students with the aspects of modern multiphase organic synthesis with special emphasis on the applicability of the method for routine use.

Learning outcomes

Students capable of creating multiphase synthesis and critical analysis proposed solutions and the resulting products.

Syllabus

Theoretical instruction

Functional group interconversions. Reduction and oxidation. Creating carbon-carbon bond. Cycloaddicions. Chemoselectivity and protecting groups. Regioselectivity and stereoselectivity Enantioselective and diastereoselective synthesis. Reagents and catalysts for enantioselective syntheses. Olefin metathesis. Grubs catalysts. Recent developments asymmetric synthesis. Retrosynthetic analysis. Selected organic syntheses. Organic photochemistry.

Practical instruction

Synthesis of the ten selected organic products. Analysis of the combined spectra of the reaction products.

Weekly teaching load				Other:
Lectures: 3	Exercises: 3	Other forms of teaching:	Student research:	