Level: bachelor
Course title: Organic Chemistry
Status: elective
ECTS: 9

# Requirements: none Learning objectives

Provide students with theoretical and practical knowledge about the structure and reactivity of organic compounds. Introduce students to IUPAC-nomenclature and to the characteristic chemical transformations of the functional groups of organic compounds.

### **Learning outcomes**

Mastered the basic knowledge about the characteristics of the classes of organic compounds and some chemical properties of organic molecules important to aspect of the control and protection of the environment.

## **Syllabus**

#### Theoretical instruction

The study of organic chemical reactions and transformations of organic molecules are important for the protection of the environment, such as free-radical reaction, the reaction of the addition, the reaction of nucleophilic substitution and elimination. The importance of organic acids and bases in reactivity of organic molecules and some important natural products. Properties and reactivity of organic compounds: alkanes, alkyl halides, alcohols, alkenes and alkynes, aromatic compounds, aldehydes and ketones, amines, heterocycles, carboxylic acids and their functional derivatives. Important classes of natural products such as carbohydrates, isoprenoids and alkaloids.

#### Practical instruction

Practical instructions are in compliance with theoretical instructions.

Weekly teaching load				Other: /
Lectures: 4	Exercises: 3	Other forms of teaching: 1	Student research: /	