

Level: bachelor				
Course title: Experimental Organic Chemistry				
Status: elective				
ECTS: 7				
Requirements: none				
Learning objectives Introduction to basic experimental techniques used in laboratories for organic chemistry. Further development manual skills necessary for safe operation in the organic laboratory.				
Learning outcomes Knowledge of laboratory techniques in organic chemistry. Mastering the work in the laboratory of organic chemistry. Apply standard laboratory techniques in the synthesis of organic compounds. Safe handling of the laboratory equipment, supplies and apparatus used in laboratories for organic chemistry.				
Syllabus				
<i>Theoretical instruction</i> Theoretical treatment of the experimental techniques used in laboratories for organic chemistry. Purification techniques of solid, liquid and gaseous organic compounds. Extraction - liquid-liquid, solid-liquid, solid-solid (SPE - solid phase extraction). Chromatography - Column and thin. Drying techniques of organic substances - dry solid, liquid and gaseous substances. Performing reactions at extremely low temperatures.				
<i>Practical instruction</i> Distillation - a simple, fractional, distillation with steam, distillation under reduced pressure. Crystallization. Vacuum drainage. Vacuum evaporation. Monitoring of the reaction by thin-layer chromatography. The separation of mixtures of substances overhead chromatography. Drying of solid organic substances. Dry and liquid solutions of organic compounds. Drying gases. Carrying out the reaction at temperatures below -50°C.				
Weekly teaching load				Other:
Lectures: 1	Exercises: 5	Other forms of teaching:	Student research:	