

| | | | | |
|--|------------|----------------------------|-------------------|--------|
| Level: Specialist academic studies of chemistry | | | | |
| Course title: Microwave Synthesis (advanced course) (SH-613) | | | | |
| Status: elective | | | | |
| ECTS: 5 | | | | |
| Requirements: none | | | | |
| Learning objectives Introducing students to the nature of microwave radiation and advantages of microwave catalyzed reactions compared to conventional reactions for organic synthesis, both from the aspect of their acceleration, increase yield and selectivity, and in terms of "eco-friendly" chemistry. | | | | |
| Learning outcomes Mastered knowledge in the field of microwave-mediated reactions in organic synthesis. | | | | |
| Syllabus <i>Theoretical instruction</i> The nature and effects of microwave irradiation in organic synthesis. The effects of temperature, pressure and reaction medium in the microwave catalyzed reactions. Getting to know the different types of microwave reactors. Techniques microwave-catalyzed reactions. Synthesis of selected organic compounds under the influence of microwave radiation and their comparison with conventional synthetic procedures. <i>Practical instruction</i> Experimental performance of microwave synthesis in CEM Discover BanchMate. | | | | |
| Weekly teaching load | | | | Other: |
| Lectures: 2 | Exercises: | Other forms of teaching: 2 | Student research: | |