

Level: PhD				
Course title: Biochemistry of alkaloids (DSB708)				
Status: elective				
ECTS: 15				
Requirements: none				
Learning objectives: This course enables students to gain specific knowledge necessary for understanding the metabolism of alkaloids, their structures, functions, as well as their possible use in human and veterinary medicine and agriculture.				
Learning outcomes: In accordance with the acquired knowledge, students will be able to critically evaluate scientific papers in this field, to apply the information in creation of an original experiment, and to present its results in reference scientific journals.				
Syllabus <i>Theoretical instruction</i> Chemical structure, definition, classification and distribution of alkaloids. Biosynthesis of alkaloids and secondary. Alkaloid biosynthesis class. Accumulation and storage. Transport of alkaloids with phloem and xylem. Renewal and function of alkaloids in plants. Alelochemical effects of alkaloids. Methods of separation and identification of alkaloids. Chemotaxonomic and phylogenetic significance. Physiological effects of alkaloids, possibilities of their application in medicine, veterinary medicine and agriculture.				
Weekly teaching load				Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5	