

Study program: Environmental protection			
Type and level of study: Master academic studies			
Course Title: Ecotoxicology			
Teachers: Snežana Štrbac			
Status: Obligatory, semester III			
ECTS: 7			
Prerequisite: None			
The goal of course The goal of the course is to acquire knowledge of the basic groups of toxic pollutants, their fate in the environment and the mechanisms of their toxic effects at the level of individuals, populations and ecosystems.			
The outcome of the subject After this course, students will acquire basic knowledge of the toxic components in the environment, their distribution, migration, the conditions for which there is a manifestation of toxic effects, consequences and risk management			
Syllabus <i>Theoretical study</i> - The basic principles of toxicology. Factors affecting toxicity. The term ecotoxicology. Overview of the main types of harmful inorganic substances. Overview of the main types of organic materials. Basic mechanisms of the toxic effects of heavy metals, the most commonly used pesticides, biocides and other persistent organic pollutants and their fate in ecosystems. Toxicology of ionizing radiation. Toxic substances and wildlife. Bioconcentration, bioaccumulation, biomagnification and biotransformation. Global deployment and removal of contaminants. Changes in communities and ecosystems. Biomonitoring. Toxicity tests. Biomarkers. Selected parameters in assessing the degree of risk of environmental pollution. <i>Practical classes</i> - Bioaccumulation factor, Bioconcentration factor, Contamination factor, Ecological Risk Assessment. Toxicity tests.			
Literature 1. Štajn, A., Žikić, R. & Saičić, S., (2007). Ekofiziologija i ekotoksikologija životinja. Prirodno-matematički fakultet. Kragujevac. Institut za biološka istraživanja „Siniša Stanković”. Beograd. 2. Đurić, D., & Petrović, LJ. (1996). Zagađenje životne sredine i zdravlje čoveka – ekotoksikologija. Velarta. Beograd. 3. Đarmati, Š., Veselinović, D., Gržetić, I. & Marković, D. (2008). Životna sredina i njena zaštita II. Univerzitet Singidunum. Fakultet za primenjenu ekologiju. Beograd. 4. Ecotoxicology, Erik Jorgensen, Elsevier, 2010.			
Number of lectures: 4			Other Classes
Lectures: 2	Practices: 2	Other forms of teaching:	
Teaching methods: Lectures, using computer technology, discussions with students, individual and team work.			
Score (maximum 100 points)			
Pre-commitments	Poens	The final exam	Poens
Activity during lectures	10	Written exam	50
Practical classes	10	Oral examination	
Colloquia	30		
Seminars			
<i>Total</i>	50		50