

Study Programme : PhD in Ecology				
Degree level: Doctoral degree				
Course Title: Ecotoxicology 2				
Professor: Ivana Teodorovic				
Elective Course				
Number of ECTS: 15				
Prerequisites: -				
Course Objective: Providing comprehensive overview of the relevant toxic pollutants of ecotoxicological relevance, with special reference to new emerging pollutants and endocrine disrupting chemicals (EDCs), their environmental fate and mode-of-action on individual, population and ecosystem level. Students get the solid knowledge on biological effects – based tools, methods for monitoring and identification of key toxic pollutants causing stress in different types of ecosystems, risk assessments and mitigation of ecological status decline as a consequence of toxic stress.				
Course Outcome: Successful students will gain a solid indepth knowledge on fate, toxicokinetics and toxicodynamics of the selected class (individual approach based on students interest and / or PhD thesis topic) of the new emerging pollutants and endocrine disrupting chemicals (EDCs) and will be skilled to independently conduct an array of in vivo, in vitro and omic based assays and apply selected ecotoxicological models, to process and analyse results using software packages and interpret data, in accordance with the selected topic and compliance with the current national and EU environmental regulations in the field of chemical and ecological risk assessment.				
Course Content: <i>Theoretical part</i> Comprehensive overview of the most ecotoxicologically relevant toxic pollutants, with special emphasis on pesticides, new emerging pollutants and endocrine disrupting chemicals (EDCs), their environmental fate, toxicokinetics, toxicodynamics and mode-of-action on individual (including humans), population and ecosystem level. Students get the solid knowledge on effect-based tools and methods, methods for monitoring and identification of key toxic pollutants causing stress in aquatic ecosystems, risk assessments and mitigation of aquatic ecosystems' ecological status decline as a consequence of toxic stress. Overview of International conventions, EU and national regulation. <i>Practical part:</i> Saelected in vivo tests, in vitro, omic based assays and ecotoxicologicalluy important models.				
Reading List: Basic reading list: 1. Newman M.C. and Clements W.H. (2008) Ecotoxicology. A Comprehensive Treatment. CRC Press and Taylor and Fransis Group, Boca Raton, Fl, USA.)e-book available) Further reading: scientific reviews and papers (internet sources)				
Total hours:				
Lectures: 5	Practicals:	Other:	Student research work:5	
Methods of instruction: Lectures/consultations, literature research, independent laboratory research				
Assessment (maximum number of points 100)				
Requirements Essay: 50 points, Oral exam 50 points				
Remark:				