

Level: master				
Course title: ECO-CHEMICAL EDUCATION				
Status: elective				
ECTS: 7				
Requirements: none				
Learning objectives Enabling future chemistry teachers for ecological education of their students and for application of ecological principle in elementary and secondary schools within chemical educational content.				
Learning outcomes <i>After successful completion of the course, a student is able to:</i> <ol style="list-style-type: none"> 1. explain the importance of eco-chemical education in the development of ecological conscience of students, 2. demonstrate systematic knowledge on ecological processes incorporated in chemical educational content, 3. demonstrate in-depth knowledge on the negative impact of humans and their irresponsible use of chemical products on environmental pollution, 4. demonstrate methodological skills in application of ecological principle in education, 5. demonstrate interpersonal skills (communication skill, team work attitude), 6. express initiative, personal responsibility and ability to make decisions in unexpected and complex situations. 				
Syllabus <i>Theoretical instruction:</i> Formal and informal eco-chemical education in Serbia and abroad. Ecological conscience. Ecological processes incorporated in chemical educational content (physico-chemical and biological processes that regulate xenobiotics transport in an ecosystem, ecological risk assessment, pollution of water, air, soil and food, GMO, recycling, dangers of nuclear energy application). Project method and problem based learning in eco-chemical education. <i>Practical instruction:</i> Simulation of greenhouse effect. Toxic household products. Recycling of paper. Biodegradability of plastics. Simulation of impact of acid rains on vegetation. Impact of detergents on vegetation. Design of a class scenario using problem-based learning and project method.				
Weekly teaching load				Other:
Lectures: 2	Exercises: 2	Other forms of teaching: 1	Student research:	