

Study program: Environmental protection			
Type and level of study: Master academic studies			
Course Title: Food analysis and food safety			
Teachers: Mira Pucarević, Biljana Panin			
Status: Obligatory, semester I			
ECTS: 7			
Prerequisite: None			
The goal of course Expanding knowledge and detailed theoretical introduction to basic macro and micro constituents of foods, methods of their analysis, as well as with food contaminants originating from the environment, the packaging, the food preparation process and the nature of toxins present in food.			
The outcome of the subject Students will be able to understand the basic food constituents and contamination testing and basic principles of food safety			
Syllabus <i>Theoretical study</i> – Basic nutrients: protein, fat and carbohydrates. Other natural ingredients: vitamins, organic acids, phenols, alcohols, esters, pigments, alkaloids, bitter substances. Additives: preservatives, colorants, sweeteners. Contaminants of food products: pesticides, heavy metals, polycyclic aromatic hydrocarbons, dioxins, acrylamide, trans fatty acids. Quality control and application of standards. Qualitative and quantitative chemical analysis. Standard and non-standard methods. The choice of methods and sampling procedures. Interpretation of results. Introduction to the concept of food security and basic concepts providing sufficient quantities of food of appropriate quality. Practical classes Determination of mineral substances, proteins, amino acids, fats, fatty acids, monosaccharides, oligosaccharides, vitamins, antioxidants, preservatives, colors, sweeteners, pesticides.			
Literature 1. Цвејанов С., Радосављевић С., <i>Испитивање намирница</i> , Завод за уџбенике и наставна средства, Београд, 2006. 2. Ј. Траковић, Ј. Барас, М. Мирић, С. Шилер, <i>Анализе животних намирница</i> , Технолошко-Металуршки факултет Београд, 1983. 3. <i>Food Safety Chemistry: Toxicant Occurrence, Analysis and Mitigation</i> , Liangli (Lucy) Yu, Shuo Wang, Bao-Guo Sun, CRC Press Taylor and Frances group, 2015.			
Number of lectures:			Other Classes
Lectures: 2	Practices: 2	Other forms of teaching:	
Student research work:			
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	
Practical classes	10	Oral examination	45
Colloquia			
Seminars	35		
<i>Total</i>	55		45