

Level of studies: Bachelor			
Course name: Food toxicology (IHA-403)			
Course status: Elective			
Number of ECTS credits: 6			
Requirement: none			
Course aim Getting knowledge about basic parameters in the area of food toxicology, toxicological assessments and groups of substances that represents sources of food pollution. The basic knowledge and skills that a student will gain, it will help them be a part of a multidisciplinary teams doing research with food safety, control, regulation and supervision of the same.			
Course outcome After completing the course the student can: demonstrate knowledge of toxic substances in food; quotes principles and implements the procedures used to control toxic substances in food, demonstrates the ability to think and control it all, interprets the results independently, and follows the modern literature in the area; organizes and manages teamwork in areas related to production and management of the food safety.			
Course content <i>Theory</i> Introduction to Food Toxicology. Standards and criteria in the field of food quality control. Basic and derived parameters of food toxicological assessment. Contaminants and food safety. Food Toxicokinetics and Toxicodynamics. Assessment of carcinogenic, teratogenic and mutagenic risk. Classification of contaminants by origin, chemical composition and physiological activity. Chemicals residues. Pesticides. Veterinary medicine. Additives of toxicological importance. Hormones in food. Toxins of fungi, bacteria and algae. Toxic metals. Genetically modified organisms and food. Contaminants from other sources. Toxic substances resulting from the heat treatment and processing of food. Loss of nutritional properties of foods due to the presence of toxins. International conventions and standards. Food safety legislation. <i>Practice</i> Laboratory exercises illustrate experiments and concepts from lectures and include risk analysis of foods and the determination of toxins in foods (energy drinks with high caffeine content, oxidized oils and fats, badly declared foods, etc.).			
Literature 1. Сутловић Д., Токсикологија хране, Сплит, ISBN:978-953-7595-40-1, (2011). 2. Watson, D.H. (ed), Food chemical safety, Vol 1- Contaminants, CRC Press, Boca Raton, USA,(2002). 3. Deshpande, S.S., Handbook of Food Toxicology. Marcel Dekker, Inc., New York, USA,(2002).			
Number of classes of active teaching			Other classes
Lectures: 3 (45)	Practice: 2 (30)	OFT: SRW:	
Teaching methods Lecture, lab work, group and individual consultations.			
Assessment of knowledge (maximum of 100 points)			
Pre-exam obligations	Points	Final exam	Points
activity during lecture classes	10	written exam	40
practical teaching	20	oral exam	30