Subject name	**Atomic Absorption Spectrometry In Food Analysis**	
Subject code	**T.KTF.AASFA.SI.TTZTX**	
Department	**Department of Fermentation Technology and Technical Microbiology**	
Faculty	**Faculty of Food Technology**	
Subject supervisor/Lecturer	**Aleksander Poreda Ph.D.**	
General information	**Teaching period**	**Summer semester**
	ECTS credits	**3**
	Lectures total	**15**
	Lab classes	**15**
Objective and general description	The main goal of the course is to cover the most up to date techniques used to analyze the ionic content of biological samples. Both flame as well as graphite furnace atomization techniques will be presented during lectures and practical laboratory. Also various techniques of sample preparation including microwave digestion will be shown.	
Lectures **5 x 3 hours**	1. Theoretical background of AAS 2. Analytical techniques of AAS – flame, graphite furnace and cold vapor generation 3. Interrelations and possible means of their elimination 4. Sample preparation techniques 5. Modern solutions in AAS techniques and different technical solutions	
Lab classes **3 x 5 hours**	1. Liquid and solid samples preparations for AAS analysis 2. Analysis of Mg, Zn and Ca in biological samples (flame AAS) 3. Analysis of Pb and Cu content in food samples (graphite furnace)	
Literature	1. Haswell, S. J., Atomic absorption spectrometry: theory, design and applications, Elsevier Science Publishers B.V. 1991. 2. Cantle J.E., Atomic absorption spectrometry book, Elsevier Scientific Publishing Company, 1982. 3. Praca zbiorowa „ Metody spektroskopowe i ich zastosowanie do identyfikacji związków organicznych”, WNT Warszawa 1995.	