

Course title Dodatki do żywności / Food additives		ECTS code 13.3.0532	
Name of unit administrating study Faculty of Chemistry			
Studies			
Field of study	Type	Form	
Chemistry	Bachelor	Full-time studies	
Teaching staff Dr hab. Joanna Makowska, prof. nadzw.			
Forms of classes, the realization and number of hours		ECTS credits 1	
A. Forms of classes, in accordance with the UG Rector's regulations lecture		classes - 15 h tutorial classes – 2 h student's own work – 8 h	
B. The realization of activities in-class learning		Total: 25 h - 1 ECTS	
C. Number of hours 15 h lecture			
The academic cycle Third year, winter semester			
Type of course obligatory		Language of instruction Polish	
Teaching methods Lectures with a multimedia presentation Problem lectures		Form and method of assessment and basic criteria for evaluation or examination requirements	
		A. Final evaluation, in accordance with the UG study regulations course completion (with a grade)	
		B. Assessment methods The credit – to pass a written test (a test with open questions)	
		C. The basic criteria for evaluation or exam requirements Positive academic grade of the written test consisting of 15-20 test and open questions covering issues mentioned in the lecture's content	
Required courses and introductory requirements The participation and possitive grade acquisition from the following subjects: 1. Organic chemistry 2. Inorganic chemistry 3. Basics of human nutrition Genetics (a level of the high school program), biochemistry (a level of the high school program), microbiology			
Aims of education Providing students with the latest specialist knowledge in the field of EU law on add-on substances, processing aids and conditions for their use; To familiarize students with the division of food additives and the effect of these additives on the human body. To familiarize students with the basics of methods for obtaining GMOs and to explain the role of genetically modified organisms in the human economy.			
Course contents A. Problems of the lecture Basic legal regulations regarding substances added to food; The distribution of food additives in food market products; Possibilities and controversies of the use of chemical compounds for food; The goals of the food enrichment; GMOs - definitions, legal regulations and goals. GMO food. GMO food labeling. Activities of non-governmental organizations in the field of modified food.			

Bibliography of literature

A. Literature required to pass the course

Maciej Taczanowski - Prawo żywnościowe w warunkach członkostwa Polski w Unii Europejskiej

Wydawnictwo naukowo-techniczne, Grudzień 2009 - Chemia żywności, tom 3

Jan Gawęcki, Tomasz Roszkowski - Żywnienie człowieka a zdrowie publiczne tom 3 Wyd. Politechniki Gdańskiej, Gdańsk,

Bednarski W., Fiedurka J. (red.) 2007 - Podstawy inżynierii genetycznej

A.2. studiowana samodzielnie przez studenta

Wydawnictwo naukowo-techniczne, Grudzień 2009 - Chemia żywności, tom 3

B. Extracurricular readings

Knowledge

- knows the basic classification systems of substances added to food.
- understands the problems and purposefulness of using chemical compounds as well as natural origin for food.
- knows the main legal regulations regarding additives in food. - knows the basic risks and benefits for the human body resulting from the presence of additional substances in food.
- knows the methods of in vitro recombination of DNA used for the modification of organisms

Skills

- has the ability to determine legal regulations (Regulation of the Minister of Health of 2003 and resulting from the division adopted in documents from the European Union) regarding additional substances in food.
- has the ability to classify food additives in various market groups of food products.
- analyzes and verifies the desirability of food enrichment by food industry producers.
- has general knowledge about GMO organisms.

Socialcompetence

- understands the social aspects of the practical application of the acquired knowledge and skills and the related responsibility.
- understands the need for lifelong learning, inspires and organizes the learning process of others.
- cooperates and works in a group, assuming various roles in it.
- shows creativity in independent and team work