



SZKOŁA GŁÓWNA  
GOSPODARSTWA  
WIEJSKIEGO

## Food additives and contaminants

### Educational subject description sheet

#### Basic information

<b>Field of study</b> Food Science - Technology and Nutrition	<b>Didactic cycle</b> 2023/24
<b>Speciality</b> -	<b>Subject code</b> NoZTNS_D.18K.02453.23
<b>Organizational unit</b> Faculty of Food Technology	<b>Lecture languages</b> english
<b>Study level</b> first cycle (bachelor's degree)	<b>Mandatory</b> Obligatory subjects
<b>Study form</b> full-time studies	<b>Block</b> Major subjects
<b>Education profile</b> General academic	<b>Disciplines</b> Food technology and nutrition
<b>Coordinator</b>	Emilia Janiszewska-Turak
<b>Teacher</b>	Emilia Janiszewska-Turak
<b>Period</b> Semester 4	<b>Examination</b> Exam
	<b>Activities and hours</b> Lecture: 25
	<b>Number of ECTS points</b> 1

#### Goals

Code	Goal
C1	The course aims to provide students with technological and health aspects of main food additives groups such as: preservatives, antioxidants, acidity regulators, coloring and flavoring agents, sweeteners and hydrocolloids.

## Entry requirements

Student has got a basic knowledge in food technology, general and organic chemistry.

## Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
<b>Knowledge - Student knows and understands:</b>			
W1	the role of food additives, the meaning and origin of food contaminants in food production and their impact on health and safety of consumers	TN_K1_W03	Written exam
<b>Skills - Student can:</b>			
U1	choose the appropriate food additives to achieve technological and nutritional benefits	TN_K1_U02	Written exam
<b>Social competences - Student is ready to:</b>			
K1	the justified and appropriate use of additives in food production	TN_K1_K02, TN_K1_K03, TN_K1_K04	Written exam

## Study content

No.	Course content	Subject's learning outcomes	Activities
1.	<p>Lectures will cover following aspects related to: general overview of food additives utilization in regard to their legal aspects, preservatives, antioxidants, acidity regulators, colouring and flavouring agents, sweeteners and hydrocolloids, pesticide residues in food and selected food contaminants.</p> <p>Legal state of food additives as present in EU and as described in Codex Alimentarius will be covered as well. Moreover, the course aims to provide Students information related to the Impact of food production and processing on the contaminants and pesticides residues content. The European and global legal regulations regarding the limits of these ingredients content will be given.</p>	W1, U1, K1	Lecture

## Course advanced

Activities	Methods of conducting classes
Lecture	Lecture, Conversation lecture, Discussion

Activities	Examination method	Percentage
Lecture	Written exam	100%

Activities	Credit conditions

<b>Activities</b>	<b>Credit conditions</b>
Lecture	Written or on-line exam forms with questions and answers. To pass the course it is required to get 51% from the exam.

## Literature

### Obligatory

1. Regulation (EC) No 1333/2008 of the European Parliament and of the Council
2. Regulation (EC) No 1334/2008 of the European Parliament and of the Council
3. Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC

### Optional

1. Consolidated text: Commission Regulation (EC) No 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs
2. Chemical Contaminants and Residues in Food, A volume in Woodhead Publishing Series in Food Science, Technology and Nutrition, Book, Second Edition, 2017
3. Branen, A. L., Davidson, P. M., Salminen, S., & Thorngate, J. (Eds.). (2001). Food additives. CRC Press.
4. materials provided from teachers
5. scientific articles in the lecture topics

## Calculation of ECTS points

<b>Activity form</b>	<b>Activity hours*</b>
Lecture	25
Preparation for the exam	5
<b>Student workload</b>	<b>Hours</b> 30
<b>Number of ECTS points</b>	<b>ECTS</b> 1

\* hour means 45 minutes

## Effects

Code	Content
TN_K1_K02	The graduate is ready to complete professional duties in a socially responsible manner, enterprising, ethical, compatible with the public interest and also with the respect for professional tradition, and for the right to intellectual property protection
TN_K1_K03	The graduate is ready to take responsibility for the high quality and high pro-health value food production, meeting the quality standards and health safety requirements
TN_K1_K04	The graduate is ready to responsible performing of professional roles, in it: compliance with the professional ethics and exploring knowledge related to the profession
TN_K1_U02	The graduate can assess the composition, energy and nutritional value of food products, determine their impact on the growth, development, functioning and health of the body, assess the diet, and nutritional status, and use the obtained results to rationalize the nutrition of individuals and different population groups
TN_K1_W03	The graduate knows and understands the composition and properties of raw materials, auxiliaries, food additives, and food industry products, the possibilities and conditions of use of them in food production, taking into account the principles of sustainable development and their impact on human health