COURSE DESCRIPTION (SYLLABUS)

1.	Course: **Food Toxicology**
2.	Language of instruction: **English**
3.	Faculty: **Faculty of Biotechnology**
4.	Course/module code: **29-BT-S1-E5-FTeng**
5.	Course/module type (*mandatory* or *elective*): **elective**
6.	Programme: **Biotechnology**
7.	Study cycle (*1st/2nd*): **1st**
8.	Year: **2nd / 3rd**
9.	Semester *(autumn* or *spring)* **autumn**
10.	Form of tuition and number of hours: Lecture: **15 h** Learning methods: **Attendance at lectures (listening and assimilation of knowledge), commitment (ability to ask questions to the teacher), activity (preparation for the lecture according to recommended issues and sources).**
11.	Coordinator(s): **Justyna Ciuraszkiewicz, PhD**
12.	Initial requirements (*knowledge, skills, social competences*): **No requirements.**
13.	Objectives: • **To introduce main terms and definitions applied for toxicology.** • **To draw attention to the occurrence of toxic compounds in food and their effects on human organism.** • **Provide information about sources of various natural toxic substances and food contaminants and possibilities of avoiding the intake of toxic chemicals.** • **To provide information what are the limitations of adding additives to food.**

<table>
<tr><td>14.</td><td colspan="2">Content:
Introduction to Food Toxicology, history and concepts of toxicology.
Absorption, distribution, biotransformation and elimination of toxicants.
Methods of toxicological research.
Food contaminants.
Natural toxins in plants and fungi .
Toxicants formed during food processing.
Toxicology of selected food additives.</td></tr>
<tr><td>1.</td><td>Learning outcomes:
Student possesses knowledge:
of basic toxicology terminology;
about the occurrence and significance of major food-borne toxicants and food contaminants;
of biotransformation and elimination of toxicants;
of connections between toxicity mechanism and disease manifestation in humans;
of methods of toxicological research;
of risk assessment and food safety as it is applied to food additives.
Student shows ability to formulate opinions related to the lecture topics.
Student is aware of risks connected with food consumption in relation to the occurrence of toxic compounds in food.</td><td>Outcome symbols:

K1_W01, K1_W04, K1_W06, K1_W09, K1_K01, K1_K04</td></tr>
<tr><td>2.</td><td colspan="2">Obligatory and recommended literature:
<u>Food Toxicology</u>, Ed. William Helferich and Carl K. Winter, Boca Raton: CRC Press, 2001;
<u>A Textbook of Modern Toxicology</u>, Ed. ERNEST HODGSON, PhD, Wiley-Interscience, 2010;
<u>Molecular and Biochemical Toxicology</u>, Ed. Robert C. Smart, Ernest Hodgson, Wiley, 2008.</td></tr>
<tr><td>3.</td><td colspan="2">Methods of verification of the assumed learning outcomes:
single-choice test</td></tr>
<tr><td>4.</td><td colspan="2">Conditions of earning credits:
active participation in classes;
single-choice test result.</td></tr>
</table>

5.	Student's workload:	
	Activity	Number of hours for the activity
	Hours of instruction (as stipulated in study programme): • lecture: **15 h** • consultations: **5 h**	20 h
	Student's own work: • reading the literature • preparation for the test	20 h
	Total number of hours:	**40 h**
	Number of ECTS:	**2 ECTS**