

DESCRIPTION OF THE COURSE OF STUDY

Course code	0912-7LEK-F-9-GMO	
Name of the course in	Polish	Żywność modyfikowana genetycznie
	English	Genetically-modified foods [GM foods]

1. LOCATION OF THE COURSE OF STUDY WITHIN THE SYSTEM OF STUDIES

1.1. Field of study	Medicine
1.2. Mode of study	Full-time
1.3. Level of study	Uniform master's studies
1.4. Profile of study*	General academic
1.5. Specialization*	lack
1.6. Unit running the course of study	Faculty of Medicine and Health Sciences
1.7. Person/s preparing the course description	Dr n. med. Katarzyna Krekora-Wollny
1.8. Person responsible for the course of study	Dr n. med. Katarzyna Krekora-Wollny
1.9. Contact	Wnoz_inm@ujk.edu.pl

2. GENERAL CHARACTERISTICS OF THE COURSE OF STUDY

2.1. Affiliation with the module	elective
2.2. Language of instruction	English
2.3. Semesters in which the course of study is offered	3 rd
2.4. Prerequisites*	none

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	Lecture- 15h	
3.2. Place of classes	Traditional classes in the didactic room of JKU	
3.3. Form of assessment	Credit with grade	
3.4. Teaching methods	Informative lecture	
3.5. Bibliography	Required reading	Genetic Modification and Food Quality, Author(s): Robert Blair, Joe M. Regenstein
	Further reading	Genetically Modified Organisms in Developing Countries ; Edited by Ademola A. Adenle, Colorado State University , E. Jane Morris, University of Leeds , Denis J. Murphy, Cambridge July 2017

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED TEACHING OUTCOMES

<p>4.1. Course objectives (lecture)</p> <p>C1 – knowing the benefits and risks associated with the creation of GM organisms.</p> <p>C2- acquiring knowledge in the field of techniques for obtaining transgenic [plant and animal] organisms,</p> <p>C3- knowledge of the types of genetic modifications, understanding the potential risks associated with genetically modified food.</p> <p>C4- gaining knowledge about genetically modified food, conventional and bio-food, running genetically modified crops (environmental, health and ethical context)</p>
<p>4.2. Detailed syllabus (lecture)</p> <ol style="list-style-type: none"> 1. A brief history and contemporaneity of genetics. Model organisms in genetic research. 2. Genetics, genetic engineering and biotechnology. Advantages of transgenic organisms. 3. Genetic modifications as intellectual and legal property, its protection. 4. Genomics; learning the future. Genetically modified organisms (GMOs). The impact of GM organisms on the natural environment. Genetically modified organisms in environmental protection. Genetically modified organisms - threats to the environment. 5. Genetically modified food; pros and cons. 6. Genetically modified food of plant and animal origin. . 7. Potential hazards resulting from the consumption of genetically modified food by animals and the final consumer - human. 8. Practical use of molecular techniques in identifying genetically modified food. 9. Law on GMOs.

4.3 Education outcomes in the discipline

Code	A student, who passed the course	Relation to teaching outcomes
within the scope of KNOWLEDGE:		
...W01	determines benefits and risks arising from the presence in the ecosystem of genetically modified organisms (GMOs);	C W10
within the scope of ABILITIES:		
...U01	applies dietary treatment (including enteral and parenteral feeding);	E.U25.

4.4. Methods of assessment of the intended teaching outcomes

Teaching outcomes (code)	Method of assessment (+/-)																				
	Exam oral/written*			Test*			Project*			Effort in class*			Self-study*			Group work*			Others*		
	Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes			Form of classes		
	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...	L	C	...
...W01				+																	
W02				+																	
W02				+																	
U01				+																	
U02				+																	

*delete as appropriate

4.5. Criteria of assessment of the intended teaching outcomes

Form of classes	Grade	Criterion of assessment
lecture (L)	3	Test – 61-68% Mastering program content at the elementary level
	3,5	Test – 69-76% Mastering program content at the elementary level, systematized answers
	4	Test – 77-84%. Mastering program content at the elementary level, systematized answers. Problem solving in typical situations
	4,5	Test – 85-92% The scope of the presented knowledge goes beyond the basic level based on the supplementary reference literature. Solving problems in new and complex situations.
	5	Test – 93-100% The scope of the presented knowledge goes beyond the basic level based on independently acquired scientific sources of information.

- Thresholds are valid from 2018/ 2019 academic year

5. BALANCE OF ECTS CREDITS – STUDENT'S WORK INPUT

Category	Student's workload
	Full-time studies
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER /CONTACT HOURS/	15
Participation in lectures*	15
Participation in classes, seminars, laboratories*	
Preparation in the exam/ final test*	
Others*	
INDEPENDENT WORK OF THE STUDENT/NON-CONTACT HOURS/	10
Preparation for the lecture*	5
Preparation for the classes, seminars, laboratories*	
Preparation for the exam/test*	5
Gathering materials for the project/Internet query*	
Preparation of multimedia presentation	
Others*	
TOTAL NUMBER OF HOURS	25
ECTS credits for the course of study	1

Accepted for execution (date and signatures of the teachers running the course in the given academic year)

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