

DESCRIPTION OF THE COURSE OF STUDY

Course code	0912-7LEK-F-3-ASMŻ	
Name of the course in	Polish	Aktywne składniki materii żywej
	English	Active ingredients of living matter

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	The Faculty of Medicine and Health Sciences
1.7. Person/s preparing the course description	dr Magdalena Marcinkowska, dr Dariusz Widel
1.8. Person responsible for the course of study	dr Magdalena Marcinkowska, dr Dariusz Widel
1.9. Contact	Magdalena.Marcinkowska@ujk.edu.pl dariusz.widel@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	1 st semester
2.4. Prerequisites*	Knowledge of the basis of general and organic chemistry

3. DETAILED CHARACTERISTICS OF THE COURSE OF STUDY

3.1. Form of classes	lecture – 15 hours	
3.2. Place of classes	lecture room, Faculty of Medicine UJK	
3.3. Form of assessment	credit with grade	
3.4. Teaching methods	Informative lecture	
3.5. Bibliography	Required reading	<ol style="list-style-type: none"> 1. An Introduction to General, Organic, and Biological Chemistry, Global Edition Autor: Timberlake Karen, ed. by Pearson Higher Education , 2015 2. Textbook of Medical Biochemistry, Eighth Edition, MN Chatterjea, Rana Shinde, JP Medical Ltd, 2011 3. Principles of Biochemistry: Pearson New International Edition, Laurence A. Moran , Robert A. Horton , Gray Scrimgeour Marc Perry, Pearson Education Ltd., 2013
	Further reading	<ol style="list-style-type: none"> 1. Organic Chemistry - 8th edition, John E. McMurry, Cengage Learning, 2011

4. OBJECTIVES, SYLLABUS CONTENT AND INTENDED TEACHING OUTCOMES

4.1. Course objectives (lecture) CI. Introduction with basic issues concerning vitamins, macro- and microelements and organic compounds with metals present in living organism.
4.2. Detailed syllabus (lecture) Micro- and macroelements. Metal compounds in organism and medicine. Vitamins – division and characterization of groups. The role of vitamins in organism, result of deficiency and excess. Bioactivity of vitamins. Results of avitaminosis and hypervitaminosis. Oxidative stress – causes. Reactive forms of oxygen. The influence of oxidative stress on organism. Antioxidants.

Code	A student, who passed the course	Relation to teaching outcomes
within the scope of KNOWLEDGE:		
W01	knows the chemical structure and biogenesis of vitamins	B.W 10
W02	knows the definitions of oxidation potential and oxidative stress	B.W 17
W03	knows the chemical nature and functions of compounds with metals present in organism	B.W4, B.W 10
within the scope of ABILITIES:		
U01	explains the causes of oxidative stress and its influence on organism	B.U 6
U02	describes changes in organism that cause disturbance of appropriate supplementation of vitamins, micro- and macroelements	B.U 4 B.U 6
U03	presents organic compounds with metals and their functions in organism	B.U 6

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				+																	
W03				+																	
U01				+																	
U02				+																	
U03				+																	

*delete as appropriate

4.5. Criteria of assessment of the intended teaching outcomes

Form of classes	Grade	Criterion of assessment
lecture (L)	3	Achievement 61 - 68% of the total number of points from written test
	3,5	Achievement 68- 76% of the total number of points from written test
	4	Achievement 77- 84% of the total number of points from written test
	4,5	Achievement 85 - 92% of the total number of points from written test
	5	Achievement 93- 100% of the total number of points from written test

- **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*	
Preparation for the classes, seminars, laboratories*	
Preparation for the exam/test*	10
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
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Accepted for execution (date and signatures of the teachers running the course in the given academic year)

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