


KAPITAŁ LUDZKI
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez
 Unię Europejską w ramach
 Europejskiego Funduszu
 Społecznego

UNIA EUROPEJSKA
 EUROPEJSKI
 FUNDUSZ SPOŁECZNY


Course title		ECTS code	
Diploma lecture - Community and chemistry		13.3.0474	
Name of unit administrating study			
null			
Studies			
faculty	field of study	type	pierwszego stopnia
Wydział Chemii	Chemia	form	stacjonarne
		specjalty	chemia biomedyczna, chemia kosmetyków, analityka i diagnostyka chemiczna, chemia żywności
		specialization	wszystkie
Teaching staff			
prof. dr hab. inż. Marek Kwiatkowski			
Forms of classes, the realization and number of hours		ECTS credits	
Forms of classes		2	
Lecture		lecture 30 h	
The realization of activities		tutorial classes 5 h	
classroom instruction		student's own work 15 h	
Number of hours		TOTAL: 50 h - 2 ECTS	
Lecture: 30 hours			
The academic cycle			
2024/2025 summer semester			
Type of course		Language of instruction	
obligatory		polish	
Teaching methods		Form and method of assessment and basic criteria for evaluation or examination requirements	
multimedia-based lecture		Final evaluation	
		Graded credit	
		Assessment methods	
		Two multiple choice tests, one in the middle and one at the end of the semester	
		The basic criteria for evaluation	
		More than 50% points from every test.	
Method of verifying required learning outcomes			
Required courses and introductory requirements			
A. Formal requirements			
none			
B. Prerequisites			
General Chemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry			
Aims of education			
To explain the students how the acquired chemistry knowledge is related to phenomena and problems they know from their personal experience and knowledge about the contemporary world.			
Course contents			
Chemistry of foodstuffs and cooking. Water – properties, natural waters, composition and properties of common drinks. Alcoholic beverages and stimulants – properties, chemistry, preparation. Chemistry of cleaning agents and cosmetics. Chemistry in agriculture: soil, fertilizers, pesticides. Chemical industry: manufacturing of bulk chemicals, raw material sources, economics of chemical production. Production of energy, fossil fuels. Elements of environmental chemistry.			

Bibliography of literature

Literature required to pass the course

1. M. M. Jones, D. O. Johnston, J. T. Neterville, J. M. Wood, M. D. Joesten "Chemistry and Society", Saunders College Publishing, Philadelphia 1987.
2. K. Waldron "The Chemistry of Everything", Pearson/Prentice Hall, Upper Saddle River 2007.
3. Handouts prepared by the author.

Extracurricular readings

The learning outcomes (for the field of study and specialization)**Knowledge**

Lists main and components of foodstuffs, beverages, stimulants, cleaning agents and cosmetics, reflects on their function, describes their chemical and biochemical transformations. Describes the role of chemistry in agriculture, manufacturing industry and energy production. Reflects on impact of chemistry on the development of civilization as well as on the natural environment.

Skills

Predicts the relationship between the molecular structure of chemicals and their properties and potential application, explaining the use of particular components in foodstuffs, beverages, stimulants, cleaning agents and cosmetics. Using professional terminology, argues how the energy production, chemical industry and agriculture affect the world, showing the advantages and disadvantages.

Social competence

Appreciates the necessity to understand how chemistry affects our everyday life. Finds this relationship as important in teaching process.

Contact

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