

Subject card

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Subject supervisor Teachers Lesson type Number of study	ical Chemistry	-> Faculty of C	Assessment form			assessment			
Teachers Lesson type Number of study			Department of Analytical Chemistry -> Faculty of Chemistry						
Lesson type Number of study	i	Subject supervisor prof. dr hab. inż. Bożena Zabiegała							
Number of study									
	Lecture	Tutorial	Laboratory	Project	t	Seminar	SUM		
	15.0	0.0	0.0	0.0	0.0 15		15		
E-learning hours inclu	i						+		
Learning activity	Participation in classes include plan				Self-stu	udy	SUM		
Number of study nours	15	1.0			9.0		25		
To familiarize students with the basics of the issues related to the protection of the environment. Increase of the level of awareness regarding the environment.									
Course out	Subject outcome			Method of verification					
K6_K05		The student is aware of the importance of any activity taken to reduce emissions of pollutants into the environment and the improvement of the environmental status			[SK5] Assessment of ability to solve problems that arise in practice				
K6_U12		The student can respond properly in the case of a threat in working environment and can apply safety rules, especially with regard to the risks associated with the direction of study.			[SU2] Assessment of ability to analyse information				
K6_W12 The studer describe the place in the stratosphe the impact human act the enviror				e processes taking e troposphere and re. He is able to assess of anthropogenic vity on the elements of ment. He understands		[SW1] Assessment of factual knowledge			
Basic concepts and definitions of the wider knowledge of the environment. Circulation of matter in nature. Homeostasis. Classification of emission sources. Types of environmental pollution. Eutrophication of surface waters. The greenhouse effect. The ozone hole. Radioactive pollution. State of the environment in Poland - the level of air pollution, soil and foodstuffs. Toxicity and ecotoxicity of different groups of inorganic and organic pollutants. Methods of assessing the impact of ekotoksyn on living organisms and the abiotic part of the environment. Effect of the manufacturing processes of consumer goods on the quality of the environment. Sustainable development. Ways to prevent pollution of the environment: - restoring the natural balance of footing - the role of forests and protective garments; - closed water circuits The use of biotechnology in eliminating pollution of the environment. Environmental pollution monitoring systems. International conventions on environmental protection. Legislation and organization of environmental protection in Poland.									
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Legislation and organization of environment.		

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Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade		
and criteria	Lecture - Credit based on the result of the test held during the last lecture	60.0%	100.0%		
Recommended reading	Basic literature	1. A. Siedlecki, L. Gorgoń: Podstawowe procesy przemysłu chemicznego, PWN, Warszawa, 1985, rozdz. V. 2. A. Głowiak, E. Kempa, T. Winnicki, Podstawy ochrony środowiska, PWN, Warszawa 1989. 3. M. Ryng, Bezpieczeństwo techniczne w przemyśle chemicznym, WNT, Warszawa 1985. 4. Z. Przeździecki, Biologiczne skutki chemizacji środowiska, PWN, Warszawa, 1984. 5. E.J. Jasińska-Zubielewicz, Ergonomia. Toksykologia przemysłowa i środowiskowa. Wydawnictwa Politechniki Warszawskiej, Warszawa, 1988. 6. W. Hermanowicz, Chemia sanitarna, Arkady, Warszawa, 1984. 7. H. Remmert, Ekologia, PWRL, Warszawa, 1985.			
	Supplementary literature	rozwoju ekonomicznego. PWN, Wa Oczyszczanie przemysłowycy gazó 1988. 3. Environmental Science, pr. Miguła, M. Andersson) The Baltic S Zarys ekotoksykologii (praca zbioro Jaśkowskiego) EKO-Pharma, Gdań Występowanie, oznaczanie i uniesz	nn, J.P. Milton, P.H. Freeman, Ekologiczne podstawy micznego. PWN, Warszawa, 1980. 2. J. Warych, przemysłowycy gazów odlotowych, WNT, Warszawa, nmental Science, praca zbiorowa (red. L. Ryden, P. ersson) The Baltic Sea University, Uppsala, 2003. 4. kologii (praca zbiorowa pod redakcją J. Namieśnika i J. EKO-Pharma, Gdańsk, 1995. 5. Pestycydy, oznaczanie i unieszkodliwianie (praca zbiorowa pod Ir hab. inż. Marka Biziuka) Wydawnictwa Naukowoarszawa 2001.		
	eResources addresses	Adresy na platformie eNauczanie:			
Example issues/ example questions/ tasks being completed	Basic definitions related to environmental protection, e.g. sustainable development, ecosystem, biosphere, anthroposphere, anthroposphere, anthroposphere, anthroposphere, anthroposphere, anthroposphere, anthroposphere, anthroposphere, in the environment, e.g. discussion of processes occurring in the stratosphere, troposphere, hydrosphere. Explanation of the greenhouse effect phenomenon. Explanation of processes occurring in the atmosphere taking into account the scale: global, continental or local.				
Work placement	Not applicable				

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