



KAPITAŁ LUDZKI
NARODOWA STRATEGIA SPÓJNOŚCI

Projekt współfinansowany przez
Unię Europejską w ramach
Europejskiego Funduszu
Społecznego

UNIA EUROPEJSKA
EUROPEJSKI
FUNDUSZ SPOŁECZNY



Course title		ECTS code	
Eco-innovation strategies		13.3.1205	
Name of unit administrating study			
null			
Studies			
faculty	field of study	type	first tier studies (BA)
Faculty of Chemistry	Chemical Business	form	full-time
		specialty	all
		specialization	all
Faculty of Chemistry	Chemistry	type	first tier studies (BA)
		form	full-time
		specialty	all
Faculty of Chemistry	Environmental Protection	specialization	all
		type	first tier studies (BA)
		form	full-time
		specialty	all
		specialization	all
Teaching staff			
prof. dr hab. Ewa Siedlecka; dr Aleksandra Bielicka-Gieldoń			
Forms of classes, the realization and number of hours		ECTS credits	
Forms of classes		2	
Auditorium classes		auditorium classes - 15 h	
The realization of activities		tutorial classes – 5 h	
lectures in the classroom		student's work – 30 h	
Number of hours		Total: 50 h - 2 ECTS	
Auditorium classes: 15 hours			
The academic cycle			
2023/2024 summer semester			
Type of course		Language of instruction	
an elective course		english	
Teaching methods		Form and method of assessment and basic criteria for evaluation or examination requirements	
Auditorium classes carried out by the project method with the use of multimedia presentations presented by the teacher and students, discussion and proposing eco-innovative solutions related to various aspects of the functioning of industry, rural areas and cities, and people's everyday life.		Final evaluation	
		Graded credit	
		Assessment methods	
		multimedia presentation, report, test	
		The basic criteria for evaluation	
		Auditorium classes: a positive note from multimedia presentation, report and test. The final note is an average from notes from multimedia presentation, report and test:	
		91-100%: 5.0	
		81-90%: 4.5	
		71-80%: 4.0	
		61-70%: 3.5	
		51-60%: 3.0	
		< 51%: 2.0	
Method of verifying required learning outcomes			

The method of verifying the acquisition of knowledge:

The student solves problems in writing (reports, final test) and oral (multimedia presentation) in the field related to the subject.

The method of verifying the acquisition of skills: Assessment of the student's involvement in discussions on the issues related to the subject.

The method of verifying the acquisition of social competencies: Assessment of the student's ability to proposing eco-innovative solutions on the basis of individual and teamwork.

Required courses and introductory requirements

A. Formal requirements

lack

B. Prerequisites

lack

Aims of education

Familiarise students with eco-innovative solutions related to various aspects of the functioning of industry, rural areas and cities, and people's everyday lives.

Course contents

Eco-innovations as the introduction of any new or significantly improved product (good or service), process, organisational change or marketing solution that reduces the use of natural resources (including materials, energy, water and land) and decreases the release of harmful substances across the whole life-cycle. Discussing and proposing solutions concerning various types of eco-innovation: technological, social, organisational, institutional and marketing. Identifying the benefits of implementing eco-innovations in industry, rural and urban areas, and people's everyday lives.

Bibliography of literature

Literature required to pass the course
scientific articles indicated by the teachers

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

Chemical Business:

K_BCh_W05 describes at an advanced level the life cycle of devices, facilities and technical systems as well as modern environment-friendly technical solutions

K_BC_W06 enumerates unit processes and describes issues in the field of technology and chemical engineering

K_BCh_U01 on the basis of the acquired knowledge, identifies, analyses and solves engineering tasks and problems in broadly understood chemistry

K_BCh_U05 evaluates the usefulness and functioning of existing engineering and technical solutions as well as research and measurement methods in the chemical industry

K_BCh_K01 identifies the level of her/his own knowledge and skills as well as the need to update engineering knowledge, continuous professional training and personal development

Chemistry:

K_W03 explains at an advanced level the relationship between the structure of matter and its observed properties

K_W05 has advanced knowledge of the chemical specialisation studied

K_U01 identifies, analyses and solves problems in the field of broadly understood chemistry on the basis of the acquired knowledge

K_U11 prepares and presents oral presentations in various fields of chemistry in Polish and English, using acquired knowledge and skills as well as basic sources of scientific information

K_K06 raises her/his professional and personal competences by using information provided in various sources

Environmental Protection:

K_OŚI_W07 explains at an advanced level the causal

Knowledge

Students: defining eco-innovations; discussing and proposing solutions concerning various types of eco-innovation; Identifying the benefits of implementing eco-innovations in industry, rural and urban areas, and people's everyday lives

Skills

Students: propose the solutions to environmental problems connected with reducing the use of natural resources and decreases the release of harmful substances across the whole life-cycle of a product; explain relations between the environment pollution and proposed eco-innovations;

Social competence

Students: understand the need for learning, inspire others for learning; cooperate in a group, taking different roles; exhibit creativity in the determination of priorities necessary for the realisation of various tasks; understand social aspects of practical use of knowledge and abilities as well as connected with their responsibility.

<p>relationship between the content of specific pollutants and the state of the environment (including human health) and the occurrence of adverse phenomena on a local, regional and global scale</p> <p>K_OŚI_W08 explains in an advanced degree the mechanisms of economic and consumer pressure on the environment and recognises the possibilities of reducing it using the latest knowledge and scientific achievements</p> <p>K_OŚI_U06 uses available sources of information and understands literature in the field of environmental protection, chemistry and natural sciences</p> <p>K_OŚI_K05 identifies the level of her/his knowledge and skills, demonstrates the need to update knowledge about the environment and its protection, demonstrates the need for continuous professional training and personal development</p>	
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