

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Ecologistics		Code 1011104451011132999
Field of study Logistics - Part-time studies - First-cycle	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 5
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) part-time	
No. of hours Lecture: 8 Classes: - Laboratory: 10 Project/seminars: -		No. of credits 3
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art		ECTS distribution (number and %)
Responsible for subject / lecturer: dr inż. Magdalena Graczyk email: magdalena.graczyk@put.poznan.pl tel. 61 665 34 08 Wydział Inżynierii Zarządzania ul. Strzelecka 11, 60-965 Poznań		Responsible for subject / lecturer: dr inż. Rafał Mierzwiak email: rafal.mierzwiak@put.poznan.pl tel. 61 665 33 95 Wydział Inżynierii Zarządzania ul. Strzelecka 11, 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge of environmental protection, logistics and organization and management sciences.
2	Skills	Can Interpret and describe: phenomena that affect the company, its logistic processes and environmental protection. Can assess the manner of achieving goals while maintaining good relationships with partners and co-workers.
3	Social competencies	Is aware of his/her knowledge of logistics, environmental protection and organization and management sciences and understands and analyses related basic social phenomena.
Assumptions and objectives of the course: The aim of the course is to familiarize students with the nature, objectives and methods of completing ecologically-oriented logistic processes and systems of pro-ecological management of production processes.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Has basic knowledge of the place and importance of environmental protection and logistics in the system of sciences and its subjective and methodological specification. - [K1A_W04]		
2. Knows basic terminology from the area of environmental protection and logistics as well as organization and management, especially those related to waste management system, transportation policy and recycling. - [K1A_W07]		
3. Knows and understands basic instruments of organization and management in the area of waste management and the importance and nature of pro-ecological management of production processes. - [K1A_W10]		
4. Has basic knowledge of major direction of development and major achievements in the area of environmental protection and logistics and pro-ecological management of production processes. - [K1A_W07]		
5. Knows historical volatility of the meaning of concepts in the area of environmental protection, logistics and pro-ecological management of production processes. - [K1A_W13]		
6. Knows legal aspects of ecologically-oriented logistic processes and systems of pro-ecological management of production processes. - [K1A_W07]		
Skills:		

<p>1. Notices, makes observations and interpretations of social phenomena of pro-ecological management system in logistics activities - [K1A_U13]</p> <p>2. Uses theoretical knowledge to describe and analyze social processes and phenomena relating to the environmental protection and logistics - [K1A_U14]</p> <p>3. Analyzes the causes of flow of processes and pro-ecological phenomena and analyses and participates in finding solutions to problems relating to the environmental protection and logistics - [K1A_U16]</p> <p>4. Can use basic notions regarding environmental protection, logistics and research paradigms in typical professional situations. - [K1A_U15]</p> <p>5. Can formulate, express, present and support the detailed issues of environmental protection in management and particularly in logistics - [K1A_U13]</p>
<p>Social competencies:</p> <p>1. Is aware of his/her knowledge and skills in the area of environmental protection and logistics, and understands the need for continuous improvement - [K1A_K01]</p> <p>2. Is aware of the importance of eco-friendly approach in management and daily life in maintaining and developing social and economic bonds at different levels - [K1A_K02]</p> <p>3. Is prepared to actively participate in groups and organizations undertaking activities related to environmental protection and recycling of waste materials in the economy - [K1A_K03]</p> <p>4. Can communicate with the environment and provide basic knowledge of environmental protection in logistics. - [K1A_K05]</p> <p>5. Can complete and improve the acquired knowledge and skills - [K1A_K04]</p> <p>6. Is able to take responsibility for the tasks assigned. - [K1A_K01]</p> <p>7. Recognizes the importance of behaving in a professional and ethical manner - [K1A_K06]</p>

Assessment methods of study outcomes	
<p>Written final test - lectures. Final project - laboratories.</p>	
Course description	
<p>The course covers the following topics:</p> <ol style="list-style-type: none"> 1) The Framework eco-logistics. 2) Logistics orientation on waste management system. 3) The processes of recycling waste materials in the economy. 4) Ecological balances in logistic systems. 5) Logistics of communal waste disposal. 6) Design of recycling-oriented products. 7) Environment-friendly management systems. 8) Environmental aspects of transport policy of the European Union 	
Basic bibliography:	
<ol style="list-style-type: none"> 1. Korzeniowski A., Skrzypek M., Ekologistyka zużytych opakowań, Instytut Logistyki i Magazynowania, Poznań, 1999. 2. Korzeń Z., Ekologistyka, Instytut Logistyki i Magazynowania, Poznań, 2001. 3. Jabłoński J., Zarządzanie środowiskowe jako warunek ekologizacji przedsiębiorstwa. próba modelu teoretycznego, WPP, Poznań, 2001. 4. J. Jabłoński (red.), Technologie &#38;#34;zero emisji&#38;#34;, WPP, Poznań 2011 5. Jakowski S., Projekt nowelizacji zasad projektowania opakowań transportowych, Centralny Ośrodek Badawczo-Rozwojowy Opakowań, Warszawa, 2003. 6. Kowalski Z., Kulczycka J., Góralczyk M., Ekologiczna ocena cyklu życia procesów wytwórczych, PWN, Warszawa 2007. 	
Additional bibliography:	
<ol style="list-style-type: none"> 1. Górski M., Prawo ochrony środowiska, Wolters Kluwer Polska, Warszawa, 2009. 2. Kwaśnicka K., Odpowiedzialność administracyjna w prawie ochrony środowiska, Wolters Kluwer Polska, Warszawa, 2011. 3. Radecki W., Ustawa o odpadach. Komentarz. Wolters Kluwer Polska, Warszawa, 2009. 4. Ochrona środowiska przyrodniczego. Dobrzańska B., Dobrzański G., Kiełczewski D., Wydawnictwo Naukowe PWN, 2008 	
Result of average student's workload	
Activity	Time (working hours)
1. Studying for final exam	10
2. Preparing the final project	20
Student's workload	

Source of workload	hours	ECTS
Total workload	30	3
Contact hours	30	3
Practical activities	0	0