

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Ecologistics</b>		Code <b>1011104281011142999</b>
Field of study <b>Logistics - Part-time studies - First-cycle</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>4 / 8</b>
Elective path/specialty <b>-</b>	Subject offered in: <b>Polish</b>	Course (compulsory, elective) <b>obligatory</b>
Cycle of study: <b>First-cycle studies</b>	Form of study (full-time, part-time) <b>part-time</b>	
No. of hours Lecture: <b>14</b> Classes: <b>-</b> Laboratory: <b>-</b> Project/seminars: <b>-</b>		No. of credits <b>3</b>
Status of the course in the study program (Basic, major, other) <b>(brak)</b>		(university-wide, from another field) <b>(brak)</b>
Education areas and fields of science and art <b>technical sciences</b>		ECTS distribution (number and %) <b>3 100%</b>
<b>Responsible for subject / lecturer:</b> dr hab. Jan Jabłoński, prof. nadzw. email: jan.jablonski@put.poznan.pl tel. 61 665 34 08 Wydział Inżynierii Zarządzania ul. Strzelecka 11, 60-965 Poznań		<b>Responsible for subject / lecturer:</b> mgr inż. Magdalena Graczyk email: magdalena.graczyk@put.poznan.pl tel. 61 665 33 95 Wydział Inżynierii Zarządzania ul. Strzelecka 11, 60-965 Poznań
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	Basic knowledge of environmental protection, logistics and organization and management sciences.
2	<b>Skills</b>	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	<b>Social competencies</b>	Is aware of his/her knowledge of logistics, environmental protection and organization and management sciences and understands and analyses related basic social phenomena.
<b>Assumptions and objectives of the course:</b> 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.		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b>		
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]		
<b>Skills:</b>		

<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><b>Social competencies:</b></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>

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

<b>Source of workload</b>	<b>hours</b>	<b>ECTS</b>
Total workload	30	3
Contact hours	30	3
Practical activities	0	0