

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Reverse logistics</b>		Code <b>1011102421011117938</b>
Field of study <b>Logistics - Full-time studies - Second-cycle</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>1 / 2</b>
Elective path/specialty <b>Chain of Delivery Logistics</b>	Subject offered in: <b>Polish</b>	Course (compulsory, elective) <b>elective</b>
Cycle of study: <b>Second-cycle studies</b>	Form of study (full-time, part-time) <b>full-time</b>	
No. of hours Lecture: <b>15</b> Classes: <b>-</b> Laboratory: <b>-</b> Project/seminars: <b>30</b>		No. of credits <b>5</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		ECTS distribution (number and %)
<b>Responsible for subject / lecturer:</b> dr inż. Paulina Golińska-Dawson email: paulina.golinska@put.poznan.pl tel. 61 6653414 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań		<b>Responsible for subject / lecturer:</b> dr inż. Agnieszka Stachowiak email: agnieszka.stachowiak@put.poznan.pl tel. 61 6653401 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	Has structured, theoretically founded general knowledge covering key issues in logistics
2	<b>Skills</b>	Is able to formulate and solve engineering tasks and simple research problems analytical methods, simulation and experimental
3	<b>Social competencies</b>	Is able to interact and work in a group, taking the different roles
<b>Assumptions and objectives of the course:</b> -To teach students with the purposes and principles of the essence of the system of reverse logistics. Familiarize students with the fundamental techniques used in this field.		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b>		
1. has thorough knowledge of management and its linkages with reverse logistics - [K2A_W03] 2. has thorough knowledge of manufacturing engineering and its relations with reverse logistics - [K2A_W05] 3. Knows the basic concepts and methods of material flow management in the context of reverse logistics - [K2A_W08] 4. Knows the basic concepts characteristic to the reverse logistics - [K2A_W09] 5. knows the trends in the use of information systems in the management of the company - [K2A_W18]		
<b>Skills:</b>		
1. Can able to design a process of analysis of the phenomenon of falling within the subject being studied - [K2A_U09] 2. Is able to identify possible improvements in the reporting system of logistics - [K2A_U16] 3. an choose, on the basis of usefulness and limitations appropriate tools and methods to solve engineering problems relevant to the construction or reorganization of the reverse logistics system - [K2A_U18]		
<b>Social competencies:</b>		
1. student is aware of a sense of responsibility for their own work and the willingness to comply with the rules work in a team and to take responsibility for collaborative tasks - [K2A_K03]		
<b>Assessment methods of study outcomes</b>		

<p>Forming assesment  a) the project- discussion on solutions that wants to propose in the project b) a lecture on the basis of answers to questions concerning the material discussed in the previous lecture  summary assesment  - of the project a) based on a public presentation of the project results and discussion about them, b) on the basis of the substantive quality of their project  - in a lecture at the public presentation on a given topic and answer questions concerning the material discussed in the lecture</p>		
<b>Course description</b>		
<p>-The course will discuss the basic concepts of sustainable development and their impact on the organization of logistics processes. Will be assessed the impact of legislation on the development of reverse logistics is presented life cycle of the product and the method of Life Cycle Assessment (LCA). Will discuss the concept of closed-loop supply chain and reverse logistics role in setting up the supply chain. The task will reverse logistics in the collection of used products and packaging. We present the task of reverse logistics systems, and production of secondary recycling systems. Performed an analysis of selected case studies in the area of reverse logistics: the automotive industry, electronics, appliances.  In the project, students will acquire practical skills in the field of reverse logistics management, in particular, the product life cycle assessment, network design collection of used products, material requirements planning for secondary production and supply chains closed configuration.</p>		
<b>Basic bibliography:</b>		
1. Golinska P. Logistyka zwrotna, Wyd. PP, Poznan 2013		
<b>Additional bibliography:</b>		
<b>Result of average student's workload</b>		
<b>Activity</b>	<b>Time (working hours)</b>	
1. reverse logistics system design of a company	30	
2. lecture	15	
3. consultation	5	
4. self -work	20	
<b>Student's workload</b>		
<b>Source of workload</b>	<b>hours</b>	<b>ECTS</b>
Total workload	70	2
Contact hours	50	1
Practical activities	30	1