

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Storage of materials and fuels</b>		Code <b>1010631371010616004</b>
Field of study <b>Transport</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>4 / 7</b>
Elective path/specialty <b>Engineering of Pipeline Transport</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>full-time</b>	
No. of hours Lecture: <b>1</b> Classes: <b>-</b> Laboratory: <b>-</b> Project/seminars: <b>-</b>		No. of credits <b>1</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. Łukasz Wojciechowski email: lukasz.wojciechowski@put.poznan.pl tel. 616652376 Maszyny Robocze i Transport ul. Piotrowo 3, 60-965 Poznań		
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	Knowledge of issues from the strength of materials, the fundamentals of machine construction, metal science and logistics of transport, properties and properties of materials and fuels
2	<b>Skills</b>	Gathering knowledge from cognition and analysis of various application cases
3	<b>Social competencies</b>	General - technical knowledge of storage needs.
<b>Assumptions and objectives of the course:</b> -Getting to know the transport and storage of materials and fuels		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b> 1. Theoretical and practical knowledge of the issues of storage and exchange of resources, transport issues - [K1A_W08] 2. knowledge of logistics, the importance of logistics in the supply, production and sales phases, models for shaping the level of inventories and finished products, the importance of logistics in transport, - [K1A_W09]		
<b>Skills:</b> 1. Acquisition of information from literature, the Internet, databases and other sources, in Polish and foreign languages, analytical work in Excel, the ability to analyze and reason - [K1A_U01]		
<b>Social competencies:</b> 1. Understanding the need for continuous learning and the need to acquire new knowledge for professional development - [K1A_K01] 2. understands the non-technical aspects and effects of the transport engineer's operation and its environmental impact and responsibility for the decisions made, the consequences of their own actions - [K1A_K02] 3. Identifying and resolving dilemmas related to the profession, among others. problems on the technical level - the environment - [K1A_K06]		
<b>Assessment methods of study outcomes</b>		
exam		
<b>Course description</b>		

Types and requirements of shredded materials stores. Classification and technical and economic characteristics of cargo devices for ground materials. Warehouse functions and role of warehouse in production and distribution. Organization of loading works in stations, cargo bases and reloading points. Processes of material flow, fuel and information. Safety of filling and emptying warehouses and protection in the storage process. Intra-factory pneumatic and hydraulic transport of materials and fuels		
<b>Basic bibliography:</b>		
<b>Additional bibliography:</b>		
<b>Result of average student's workload</b>		
<b>Activity</b>	<b>Time (working hours)</b>	
1. Participation for the lectures	15	
2. Consultations	3	
3. Preparation for the exam	6	
4. Participate in exam	4	
<b>Student's workload</b>		
<b>Source of workload</b>	<b>hours</b>	<b>ECTS</b>
Total workload	28	1
Contact hours	28	1
Practical activities	0	0