

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Warehouses Design		Code 1011101451011115177
Field of study Logistics - Full-time studies - First-cycle studies	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 5
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 15 Classes: - Laboratory: - Project/seminars: 15		No. of credits 2
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 hab. Inż. Marek Fertsch, prof.nadzw. email: marek.fertsch@put.poznan.pl tel. 616653416 Wydział Inżynierii Zarządzania ul. Strzelecka 11, 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Student has a knowledge on technique, technology and infrastructure of logistics
2	Skills	Student has skills within technique, technology and infrastructure of logistics
3	Social competencies	Student has social competences within technique, technology and infrastructure of logistics
Assumptions and objectives of the course: Providing students with knowledge, skills, social competences within warehouses design		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. can identify contemporary trends in logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management - [K1A_W19] 2. has a basic knowledge of the life cycle of socio-technical systems (logistics systems) (T1A_W06) - [K1A_W21] 3. knows basic methods, techniques, tools and materials applied when solving simple engineering tasks connected with designing systems and logistics processes - [K1A_W23]		
Skills:		
1. can search in the literature and other sources and in the orderly way present information on the issues within the logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management - [K1A_U01] 2. can demonstrate with appropriate means issues within the logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management - [K1A_U02] 3. can develop and present an oral presentation on the detailed issues within logistics in Polish or any foreign language - [K1A_U04] 4. can independently develop the for the problem within the field of studies - [K1A_U05] 5. apply relevant experimental and measurement techniques to solve the problem within the field of studies including computer simulation to design a warehouse and logistics processes, as well as handling operations - [K1A_U08]		
Social competencies:		

1. is sensitive to non-technical aspects and effects of engineering activities, including its impact on the environment, and the associated responsibility for decisions in the field contained within the logistics and supply chain management (T1A_KO2) - [K1A_K02]
2. The student is willing to cooperate and work in a project group - [K1A_K03]
3. can properly identify and resolve the dilemmas associated with the pursuit of logistics profession - [K1A_K05]
4. can plan and manage in the entrepreneur way - [K1A_K06]
5. knows the typical engineering technologies in logistics and its specific issues and supply chain management - [KInzA_W05]

Assessment methods of study outcomes		
<p>Forming rating</p> <p>a) project- based on discussions on solutions that a student developed in the project b) lecture- based on answers to questions related to the material discussed in the previous lecture</p> <p>Summary Rating</p> <p>in terms of the project a) on the basis of a public presentation of the project results and discussions about them, b) on the basis of the substantive quality of the project prepared</p> <p>in terms of a lecture on the basis of a public presentation on a given topic and answers to questions concerning the material discussed in the lecture</p>		
Course description		
<p>The lecture begins by recalling the essence of the process of storage its steps. Then the issues discussed include: the definition of the warehouse, storage types, types of warehouse equipment and rules for its selection. The process of designing the warehouse is presented. Documentation storage is discussed. The possibilities of using simulation in warehouse design are presented.</p> <p>In class project, students develop a preliminary warehouse design according to assumptions given by the teacher or the design process of storage in the selected warehouse.</p>		
Basic bibliography:		
<ol style="list-style-type: none"> 1. Gubała M., Popielas J., Podstawy zarządzania magazynem w przykładach, Biblioteka logistyka, Wydawnictwo ILiM, Poznań, 2002. 2. Korzeniowski A. (red.), Zarządzanie gospodarką magazynową, PWE, Warszawa, 1997. 3. Korzeń Z., Logistyczne systemy transportu bliskiego i magazynowania, t.1 i 2, Biblioteka logistyka, Wydawnictwo ILiM, Poznań, 1998 		
Additional bibliography:		
Result of average student's workload		
Activity	Time (working hours)	
1. lectures	15	
2. consultation	5	
3. project	15	
4. self work	15	
Student's workload		
Source of workload	hours	ECTS
Total workload	50	2
Contact hours	25	1
Practical activities	15	1