STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Warehouses Design**	Code **1011104351011115177**

Field of study **Logistics - Part-time studies - First-cycle**	Profile of study (general academic, practical) **general academic**	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) **part-time**

No. of hours				No. of credits **3**
Lecture: **10**	Classes: **-**	Laboratory: **-**	Project/seminars: **10**	

Status of the course in the study program (Basic, major, other) **other**	(university-wide, from another field) **university-wide**

Education areas and fields of science and art **technical sciences** **Technical sciences**	ECTS distribution (number and %**)** **3 100%** **3 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	The student has knowledge of the subject technology, technology and logistics infrastructure
2	**Skills**	The student has the skills of the subject technology, technology and logistics infrastructure
3	**Social competencies**	The student has the social skills of the subject technology, technology and logistics infrastructure

Assumptions and objectives of the course:

Mastering the student's knowledge, skills and social competence related to designing warehouses

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. He can indicate new trends within the logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ekologistyki) and supply chain management - [K1A_W19]

2. He has a basic knowledge of the life cycle of socio-technical systems (logistics systems) - [K1A_W21]

3. He knows the basic methods, techniques, tools and materials used in solving simple engineering tasks related to the design of systems and logistics processes - [K1A_W23]

Skills:

1. Can search on the basis of literature and other sources and orderly way to present information on the problem located within the logic and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ekologistyki) and supply chain management - [K1A_U01]

2. Can present by appropriate personal issue falling within the ambit of logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ekologistyki) and supply chain management - [K1A_U02]

3. Can prepare and present oral presentation concerning specific issues of logistics in the Polish language and a foreign language - [K1A_U04]

4. Can independently develop given, located within the subject being studied issue - [K1A_U05]

5. Apply the solution to the problem located within the subject being studied relevant experimental techniques and measurement equipment including computer simulation in the design warehouse design and design of logistics processes handling - [K1A_U08]

Social competencies:
1. He is sensitive to the effects of non-technical aspects and engineering activities, including its impact on the environment and the associated responsibility for decisions in the field coming within the logistics and supply chain management (T1A_KO2) - [K1A_K02]
2. He is willing to cooperate and work in groups on solving falling within the subject being studied problems - [K1A_K03]
3. He can correctly identify and resolve dilemmas associated with the pursuit of logistics - [K1A_K05]
4. He can plan and manage in an entrepreneurial - [K1A_K06]
5. He knows the typical engineering technologies in logistics and its specific issues and supply chain management - [KInzA_W05]

Assessment methods of study outcomes
Forming rating
a) project- based discussion on solutions that wants to propose the project b) a lecture based on answers to questions about the material discussed in the previous lecture
Rating summary
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 substantive quality of the project prepared in terms of a lecture on the basis of a public presentation on a given topic and answer questions concerning the material discussed in the lecture

Course description
The lecture begins by recalling the essence of the process of storage and making up this process steps. Then discussed are: the definition of storage, types of warehouses. The are kinds of warehouse equipment and rules for its reception (cost optimization selection and operation of equipment). Presented is the process of designing the magazine (optimization of storage area and volume). Documentation is discussed Warehouse (risk analysis, key indicators of operation of the facility, implementing improvements in stock - 5S). Discussed are systems supporting warehouse operations. Presented are possibilities of using simulation in design warehouses.
In class project, students prepare a preliminary design by the magazine assumptions made by the teacher or the design process in a selected storage warehouse.

Basic bibliography:

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. lecture	10
2. project	10
3. consultation	15
4. individual work	25
Student's workload		

Source of workload	hours	ECTS
Total workload	60	3
Contact hours	35	2
Practical activities	10	1