STUDY MODULE DESCRIPTION FORM

Name of the module/subject	Code
Design of internal transport systems	**1011104471011115178**

Field of study	Profile of study (general academic, practical)	Year /Semester
Logistics - Part-time studies - First-cycle	**general academic**	**4 / 7**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
-	**Polish**	**elective**

Cycle of study:	Form of study (full-time,part-time)
First-cycle studies	**part-time**

No. of hours	No. of credits
Lecture: **14** Classes: **-** Laboratory: **-** Project/seminars: **12**	**3**

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

Education areas and fields of science and art	ECTS distribution (number and %)

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Bases of the mechanical engineering and transport equipments Fundamentals of the use of machines Bases of the organization of transport systems
2	**Skills**	Ability of using the knowledge acquired earlier Ability of the independent thinking and the constructive criticism of solutions Ability of having a factual discussion and the teamwork
3	**Social competencies**	Understanding of the need of work in a team. Ability of putting own substantial contribution into the work of the entire team.

Assumptions and objectives of the course:

Acquainting students with the process of designing the close transport systems.

Mastering the ability of designing close transport systems.

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

Knowledge:

1. The student has knowledge on the substance of the contextual sciences in reference to the close transport systems - [K2A_W04, K2A_W08]

2. The student has a wide knowledge on the role of man in the formation of the organizational culture and ethics in the process of design and management of technical systems - [K2A_W05, K2A_W09]

Skills:

1. The student is able to use the obtained theoretical knowledge for describing and analyzing causes and results of course of processes and social and technical phenomena, he is able to formulate own opinions and choose critical data and methods - [K2A_U02, K2A_U06]

2. The student is able to interpret and explain correctly technical, political, legal, economical phenomena, as well as mutual relations between these phenomena - [K2A_U03]

Social competencies:

1. Student can notice causally consecutive relations in the realization of established purposes and set the ranking of importance of alternative or competitive tasks - [K2A_K03]

2. Student is aware of the interdisciplinary character of the knowledge from the range of environmental protection engineering; he has the skill to solve composite environmental problems of the organization and forms interdisciplinary teams - [K2A_K06, K2A_K02]

Assessment methods of study outcomes

Forming assessment:

- Lectures ? on basis of questions asked during the lecture, which refer to previous lectures on the subject
- Project classes - on basis of the evaluation of the current progress in realization of obtained tasks

Final assessment:

-Lectures - final test

- Project classes - on basis of a realized project

Course description

The course of lectures starts with the description of the process of storing and operation consisting in it; types of close transport, sorts of close transport equipment and rules for their selection. Next, the process of designing a close transport system will be shown. Also possibilities of using simulations for designing systems of the close transport will be presented.

Basic bibliography:

1. Logistyczne systemy transportu bliskiego i magazynowania, t.1 i 2, Biblioteka logistyka, Korzeń Z, Wydawnictwo ILiM, Poznań, 1998
2. Systemy logistyczne, Pfohl H.Ch., ILiM, Poznań, 1998
3. Centra logistyczne cel-realizacja-przyszłość , Fechner I. , ILiM, Poznań, 2004
4. Logistyczne systemy transportu bliskiego i magazynowania, t.1 i 2, Biblioteka logistyka, Korzeń Z, Wydawnictwo ILiM, Poznań, 1998
5. Systemy logistyczne, Pfohl H.Ch., ILiM, Poznań, 1998
6. Centra logistyczne cel-realizacja-przyszłość , Fechner I. , ILiM, Poznań, 2004
7. Projektowanie systemów transportu wewnętrznego, Lubiński P., WPP, Poznań, 2013
8. Management Principles and Practices, Griffin R.W. 2011

Additional bibliography:

1. Opakowania w systemach logistycznych , Korzeniowski A., Szyszka G., Skrzypek M. , ILiM, Poznań, 2001
2. Ekonomika i organizacja transportu , Mendyk E. , WSL, Poznań, 2002
3. Zarządzanie produkcją, Głowacka-Fertsch D., Fertsch M. , WSL, Poznań, 2004
4. Opakowania w systemach logistycznych , Korzeniowski A., Szyszka G., Skrzypek M. , ILiM, Poznań, 2001
5. Ekonomika i organizacja transportu , Mendyk E. , WSL, Poznań, 2002
6. Zarządzanie produkcją, Głowacka-Fertsch D., Fertsch M. , WSL, Poznań, 2004
7. Mechanizacja wewnętrznego transportu, Polański A., WNT Warszawa 1963

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	15
2. Participation in project classes	15
3. Preparation for the project	30
4. Preparation for the project assessment	10
5. Preparation for the final assessment	10
6. Project consultations	15
7. Exam	2

Student's workload

Source of workload	hours	ECTS
Total workload	97	3
Contact hours	47	2
Practical activities	45	1