STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Logistic engineering**	Code **1011101441011119862**

Field of study **Logistics - Full-time studies - First-cycle studies**	Profile of study (general academic, practical) **general academic**	Year /Semester **2 / 4**

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				No. of credits
Lecture: **30** Classes: **-** Laboratory: **-** Project/seminars: **15**				**5**

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 %**)** **5 100%** **5 100%**

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 of logistics.
2	**Skills**	The student has the skills in the subject of logistics.
3	**Social competencies**	The student has social competences in the field of logistics.

Assumptions and objectives of the course:

Mastering the knowledge, skills and social competences associated with the applications of logistic engineering by the student.

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

Knowledge:

1. knows the basic relationships characteristic for the applications of logistic engineering (T1A_W03) - [K1A_W14]

2. can recognize the basic phenomena characteristic for the functioning of logistic engineering applications - [K1A_W16]

3. interprets the phenomena characteristic for the functioning of logistic engineering applications - [K1A_W17]

Skills:

1. He knows how to conduct the process of needs analysis in logistic engineering applications - [K1A_U14]

2. He knows how to choose the right tools and methods of analysis and design for logistic engineering applications - [K1A_U15]

3. Can design a logistics system using the right methods and techniques using logistic engineering - [K1A_U16]

Social competencies:

1. The student is sensitive to non-technical aspects and effects of engineering activities, including its impact on the environment of the logistics system (T1A_KO2) - [K1A_K02]

2. Responsible for correct identification and resolution of dilemmas related to the functioning of the logistics system - [K1A_K07]

3. The student is able to plan and manage in an entrepreneurial manner as part of a logistics system - [K1A_K06]

Assessment methods of study outcomes
Forming rating
a) project - based on a discussion on solutions that he wants to propose as part of the project
b) the lecture based on the answers to questions about the material discussed in the previous lecture
Summary rating
in the scope of the project
a) on the basis of a public presentation of the project results and discussions on them,
b) on the basis of the substantive quality of the prepared project
in the lecture-based on the pass (exam)

Course description
Logistics systems. Logistics processes. Logistic system and logistics process as a subject of design. The stages of logistics development. A place of logistic engineering in the development of logistics. Methodological basis of logistic engineering. Planning in logistics. Information exchange in logistic systems.
Teaching methods:
conventional monographic lecture,
project: team project, work with literature

Basic bibliography:

1. Blanchard B., Logistics engineering and management, Prentice-Hall, Inc., Englewood Cliffs, New Jersey 1992

2. Fertsch M. (red)., Elementy inżynierii logistycznej, Wydawnictwo ILiM, Poznań, 2017

3. Blanchard B.S., Logistics as an Integrating System's Function, [in:] Don Taylor G. (red.)., Introduction to Logistics Engineering, CRC Press, Boca Raton, FL, 2009

4. Coyle J.L., Bardi E. J., Langley C.J.Jr., Zarządzanie logistyczne, Polskie Wydawnictwo Ekonomiczne, Warszawa, 2002

Additional bibliography:

1. Pfohl H.- Ch., Systemy logistyczne. Podstawy organizacji i zarządzania. Wydawnictwo ILiM, Poznań, 2002.

2. Don Taylor G., Introduction to logistics Engineering, CRC Press, Taylor& Francis Group, Boca Raton, London, New York, 2009

Result of average student's workload	
Activity	**Time (working hours)**
1. Lectures	30
2. Project	15
3. Consultation	15
4. Own work	20
5. The exam	5

Student's workload		
Source of workload	**hours**	**ECTS**
Total workload	85	5
Contact hours	65	3
Practical activities	50	2