

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Logistic engineering		Code 1011101341011119862
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 Lecture: 15 Classes: - Laboratory: - Project/seminars: 15		No. of credits 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: dr hab. inż. Łukasz Hadaś email: lukasz.hadas@put.poznan.pl tel. 61 665 34 01 Wydział Inżynierii Zarządzania ul. Strzelecka 11, 60-965 Poznań		
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	15	
2. Project	15	
3. Consultation	25	
4. Own work	30	
5. The exam	5	
6. Literature studying	20	
7. Preparation to the classes	15	
Student's workload		
Source of workload	hours	ECTS
Total workload	125	5
Contact hours	60	2
Practical activities	15	1