

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Transportation management		Code 1011104321011112816
Field of study Logistics - Part-time studies - First-cycle	Profile of study (general academic, practical) general academic	Year /Semester 1 / 2
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) part-time	
No. of hours Lecture: 14 Classes: 14 Laboratory: - Project/seminars: -		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 inż. Mirosław Kruszyński email: miroslaw.kruszynski@put.poznan.pl tel. 61 665 34 15 Faculty of Engineering Management Poznan University of Technology, 11 Strzelecka street, 60-965 Poznan, Poland		Responsible for subject / lecturer: dr inż. Mirosław Kruszyński email: miroslaw.kruszynski@put.poznan.pl tel. 61 665 34 15 Faculty of Engineering Management Poznan University of Technology, 11 Strzelecka street, 60-965 Poznan, Poland
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	The student she/he has a basic knowledge of economics and transportation. It has a general knowledge of transportation operations and management.
2	Skills	The student she/he has can identify the stages and elements of the transport process.
3	Social competencies	The student she/he is aware of and understands the validity of non-technical aspects and impact of engineering activities, including its impact on the environment, and the related responsibility for decisions. The student she/he can interact and work in a group, assuming different roles in it. The student she/he is able to think and act in an entrepreneurial.
Assumptions and objectives of the course: Identification of basic problems in the transport economy and the ability to evaluate (optimize) selected processes in the field of transport work.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. has a basic knowledge of IT (information technology), economics and organization of transport, production management and services, design of production systems (plant design) (T1A_W02) - [-[K1A_W09]]		
2. have basic knowledge about the relationship between the sphere of technical and economic characteristic of the logistics and supply chain management (T1A_W08). - [-[K1A_W10]]		
Skills:		
1. can independently develop given, located within the subject being studied issue (T1A_U05), - [-[K1A_U05]]		
2. can be formulated using analytical methods, simulation or experimental falling within the subject being studied design task and to solve them in terms of logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management supplies (T1A_U09), - [-[K1A_U09]]		
3. is able to assess in economic terms specific problem, which forms part of the logistics and the specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics operation, ecologistics) and supply chain management (T1A_U12), - [-[K1A_U12]]		
4. is able to select the right tools and methods to solve the problem located within the logistics and supply chain management and to effectively use them (T1A_U15). - [-[K1A_U15]]		

Social competencies:
1. is sensitive to non-technical aspects and effects of engineering activities, including its impact on the environment, and the related responsibility for decisions in the field coming within the logistics and supply chain management (T1A_KO2), - [-K1A_K02]]
2. is willing to cooperate and work in groups on solving falling within the subject being studied problems (T1A_KO3), - [-K1A_K03]]
3. can plan and manage in an entrepreneurial (T1A_KO6). - [-K1A_K06]]

Assessment methods of study outcomes
-Formative: Within the scope of the exercises: on the basis of an assessment of the current progress of tasks (self-employment and in groups, expression of opinions and opinions) Lectures: based on answers to questions about the material discussed in the lectures - summary: Within the scope of the exercises: credit on the basis of short test with closed questions multiple choice and solving in writing several tasks with content, credit is possible after obtaining a minimum of 60% points. Lectures: credit on two tests - answers to open questions and closed questions (multiple choice); credit is possible after obtaining a minimum of 60% of points from each test.

Course description
The course covers the following topics: basic concepts - transport, transport economics; 2) The role and importance of transport in the national economy; 3) Production factors, classification and organization of transport; 4) transport infrastructure; 5) Transport needs and services; 6) management in the transport sector; 7) Urban transport; 8) Intermodal transport? economics and organization; 9) The role of transport in the supply chain; 10) transport process and its components; 11) transport company and its operating characteristics; (12) Costs in the transport undertaking and prices of transport services; 13) Technical speed, operating speed, vehicle operating time, driving time; 14) Use of payload, vehicle fill factor, use of mileage, transport work; 15) Planning of transport resources, transport fleet, intermodal transport, driver working time; 16) Maximum flow / maximum throughput in transport network, shortest route, optimal allocation; 17) Pallet load units, pallet load, pallet load, pallet height; 18) SWOT analysis? selected branches of transport. Didactic methods In lectures: 1. Information lecture 2. Problem solving 3. Conversational lecture In the field of self-employment: 1. Working with a book In the scope of exercises: 1. The exercise method? case method 2. Guided text method 3. Discussion in the form of a round table

Basic bibliography:
1. Ekonomika transportu dla potrzeb logistyki. Teoria i praktyka, Adam Szymonik, Diffin, Warszawa, 2013 2. Ekonomiczne i organizacyjne aspekty transportu, Ilona Urbanyi-Popiołek, Wydawnictwo Ucaelniane Wyższej Szkoły Gospodarki w Bydgoszczy, Bydgoszcz, 2013. 3. Ekonomika transportu, Edward Mendyk, Wydawnictwo Wyższej SzkołyLogistycznej w Poznaniu, Poznań, 2009. 4. Ekonomika transportu, Marek Ciesielski, Anna Szudrowicz, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk, 2008 5. Ekonomika transportu. Teoria i praktyka gospodarcza, Aleksandra Koźlak, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk, 2008.

Additional bibliography:
1. Transport i spedycja, Tomasz Wierzejski, Małgorzata Kędzior-Laskowska, Expol, Olsztyn, 2014, 2. Ekonomika Logistyki, Teresa Truś, Wydawnictwo Difin, 2010. 3. Transport, Włodzimierz Rydzkowski, Krystyna Wojewódzka-Król, Wydawnictwo Naukowe PWN, Warszawa, 2009. 4. Transport miejski. Ekonomika i organizacja, Olgierd Wyszomirski, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk, 2008 5. Uwarunkowania rozwoju systemu transportowego Polski, Bogusław Liberacki, Leszek Mindura, Wydawnictwo Instytutu Technologii Eksploatacji - PIB, Warszawa - Radom, 2007 6. Wielokryterialne wspomaganie decyzji w transporcie drogowym, Jacek Żak, Wydawnictwo Politechniki Poznańskiej, Poznań, 2005

Result of average student's workload

Activity		Time (working hours)
1. lecture		14
2. exercise		14
3. consultations		30
4. exam		6
5. The student own work		30
6. Literature studying		30
Student's workload		
Source of workload	hours	ECTS
Total workload	124	5
Contact hours	64	3
Practical activities	14	1