



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Management in transport [N1Trans1>ZwT]

Course

Field of study

Transport

Year/Semester

2/4

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

part-time

Requirements

elective

Number of hours

Lecture

18

Laboratory classes

0

Other

0

Tutorials

9

Projects/seminars

0

Number of credit points

3,00

Coordinators

dr hab. inż. Marek Waligórski prof. PP
marek.waligorski@put.poznan.pl

Lecturers

Prerequisites

KNOWLEDGE: The student has a basic knowledge of managing transport processes and its stages. The student knows and understands the basic methods and practical tools in the field of transport description. The student knows the main tasks of transport in the area of operation and economic development of enterprises and the state. **SKILLS:** The student is able to use the concepts and methods in the description of technical and economic problems. The student is able to use the acquired knowledge to analyze specific phenomena and processes occurring in technical and economic systems. The student is able to solve specific tasks appearing in technical and economic systems. **SOCIAL COMPETENCES:** The student is able to work in a group, assuming various roles in it. The student is able to determine the priorities important in solving the tasks set before him. The student is independent in solving problems, gaining and improving the acquired knowledge and skills.

Course objective

The aim of the course is to provide students with information on transport management, primarily the principles of transport organization and planning. Students acquire knowledge and skills of effective management in transport against the background of the globalization processes of the economy.

Course-related learning outcomes

Knowledge:

Student has a structured and theoretically founded general knowledge in the field of key technical issues and detailed knowledge of selected issues in this discipline of transport engineering.

Skills:

Student is able to obtain information from various sources, including literature and databases, both in Polish and in English, integrate it properly, interpret and critically evaluate it, draw conclusions, and exhaustively justify opinions.

Student is able to properly use information and communication techniques applicable at various stages of the implementation of transport projects.

Student is able to formulate and solve tasks in the field of transport, apply appropriately selected methods, including analytical, simulation or experimental methods.

Student is able to take into account in the process of formulating and solving tasks in the field of transport engineering also non-transport aspects, in particular social, legal and economic issues.

Social competences:

Student understands that in technology, knowledge and skills very quickly become obsolete.

Student is able to think and act in an entrepreneurial way, incl. finding commercial applications for the created system, taking into account not only the business benefits, but also the social benefits of the conducted activity.

Student is aware of the social role of a technical university graduate, in particular, he understands the need to formulate and convey to the society, in an appropriate form, information and opinions on engineering activities, technological achievements, as well as the achievements and traditions of the profession of a transport engineer.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:

Written exam, final test

Programme content

The program covers issues related to the transport management process, taking into account the necessary concepts and definitions, characteristics of the functioning of transport and enterprises within the domestic and international market, modern methods and tools of transport management and network design, profitability assessment and detailed calculations, parametric analyzes of transport processes with taking into account the criteria of cost and environmental optimization.

Course topics

The definition and scope of transport management. Characteristics of individual modes of transport. Functioning of modes and types of transport. Principles of operation and organization of national and international transport. Innovative logistics solutions in transport. The essence of service and freight forwarding in transport. Designing transport networks in terms of space and time. Designating service areas. Designing transport networks in terms of value, assessment of the profitability of investments in transport solutions. Cost calculations and locations of transshipment centers. Costs of transport processes. Prices and tariffs in transport. Methods of minimizing transport costs in the logistics system. INCOTERMS 2020 commercial formulas. Application of ratio analysis in the verification of transport processes. The concept of damage and complaints in transport. Methods and tools for the evaluation of transport service providers. Costs of the quality of transport services.

Teaching methods

1. Lecture with multimedia presentation
2. Exercises - solving problems

Bibliography

Basic

1. Rydzkowski W., Wojewódzka-Król K. (red.): Transport. PWN, Warszawa 1998.

2. Stajniak M., Hajdul M., Foltyński M., Krupa A.: Transport i spedycja. Biblioteka Logistyka, Poznań 2008.
 3. Wasiak M., Problemy decyzyjne organizacji przewozów, Oficyna Wydawnicza Politechniki Warszawskiej
 3. Wojewódzka-Król K., Załoga E., Transport Nowe wyzwania, PWN, Warszawa 2016.
- Additional
1. Gołemska E., Gołembski M., Transport w logistyce Wydawnictwo: CeDeWu 2020
 2. Stawiarska E., Modele zarządzania innowacjami w łańcuchach i sieciach dostaw międzynarodowych koncernów motoryzacyjnych, Wydawnictwo: CeDeWu 2019

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	27	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	48	2,00