



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Logistics in transport systems

### Course

Field of study

Year/Semester

Transport

2/3

Area of study (specialization)

Profile of study

Rail transport

general academic

Level of study

Course offered in

Second-cycle studies

polish

Form of study

Requirements

full-time

elective

### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

15

0

0

Tutorials

Projects/seminars

15

0

### Number of credit points

2

### Lecturers

Responsible for the course/lecturer:

dr inż. Anna Kobaszyńska-Twardowska

Responsible for the course/lecturer:

Second person allowed

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Wydział Inżynierii Lądowej i Transportu

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### Prerequisites

The student has a basic knowledge of the place of transport and logistics in the economy system.

The student knows and understands the basic methods and practical tools in the field of transport and logistics description. KNOWLEDGE: The student has a basic knowledge of the place of transport and logistics in the economy system.

The student knows and understands the basic methods and practical tools in the field of transport and logistics description.



The student knows the main tasks of transport and logistics in the field 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 problems appearing in technical and economic systems.

**SOCIAL COMPETENCES:** The student is able to cooperate 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 shows independence in solving problems, acquiring and improving the acquired knowledge and skills.

The student knows the main tasks of transport and logistics in the area of operation and economic development of enterprises and the state

### **Course objective**

The aim of the course is to provide students with information on logistics and transport systems, definitions and concepts. Students acquire knowledge and skills in the operation of logistics systems within various branches of transport.

### **Course-related learning outcomes**

#### Knowledge

Student has knowledge about development trends and the most important new achievements of means of transport and other selected related scientific disciplines.

#### Skills

Student can assess the usefulness of methods and tools for solving an engineering task consisting in the construction or assessment of a transport system or its components, including the limitations of these methods and tools

#### Social competences

Student understands the importance of using the latest knowledge in the field of transport engineering in solving research and practical problems

### **Methods for verifying learning outcomes and assessment criteria**

Learning outcomes presented above are verified as follows:

Written exam, final test

### **Programme content**



General definitions of logistics, concepts from transport systems, logistics tasks in transport, stages of logistics development, logistics customer service in transport by market segments and its main elements, measures and standards of customer service based on selected market segments, the inventory renewal cycle, basic methods inventory renewal, ABC / XYZ method of inventory classification, components of full logistic costs in transport, demand forecasting.

### Teaching methods

1. Lecture with a multimedia presentation Logistics in transport systems
2. Exercises - solving problems

### Bibliography

#### Basic

1. Beier F.J., Rutkowski K.: Logistyka. SGH, Warszawa 1993. Praca zbiorowa: Podstawy logistyki. Biblioteka Logistyka, Poznań 2008.
2. Coyle J., Bardi E., Langley C.: Zarządzanie Logistyczne. PWE, Warszawa 2007.
3. Praca zbiorowa: Podstawy logistyki. Biblioteka Logistyka, Poznań 2008.
4. Kozłowski R., Sikorski A.: Nowoczesne: rozwiązania w logistyce, Wolters Kluwer Polska, 2013.
5. Kauf S., Tłuczak A.: Optymalizacja decyzji logistycznych, Difin, 2013.

#### Additional

1. Jacyna M.: Wybrane zagadnienia modelowania systemów transportowych. Oficyna Wydawnicza Politechniki Warszawskiej, 2009.
2. Gołemska E., Gołemski M., Bentyn Z.: Logistyka usług. PWN 2017
3. Rydzkowski W., Wojewódzka-Król K. (red.): Transport. PWN, Warszawa 1998.
4. Leszczyński J.: Modelowanie systemów i procesów transportowych. Oficyna Wydawnicza Politechniki Warszawskiej, 1999.
5. Stajniak M., Hajdul M., Foltyński M., Krupa A.: Transport i spedycja. Biblioteka Logistyka, Poznań 2008.



### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	20	1,0

<sup>1</sup> delete or add other activities as appropriate