# POZNAN UNIVERSITY OF TECHNOLOGY



#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

**Distribution Logistics** 

**Course** 

Field of study Year/Semester

Logistics 2/4

Area of study (specialization) Profile of study

general academic

Level of study Course offered in

First-cycle studies Polish

Form of study Requirements full-time compulsory

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

15

Tutorials Projects/seminars

15

**Number of credit points** 

2

**Lecturers** 

Responsible for the course/lecturer:

Responsible for the course/lecturer:

Ph.D., D.Sc., Eng., Piotr Cyplik, Universty

Professor

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Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

#### **Prerequisites**

Student knows the basics of logistics. Student can use basic logistic measures in practise.

## **Course objective**

The aim of the course is to introduce students with the organization of distribution systems - their diversity, structure and functioning. Students will learn a number of useful concepts and tools used most often in the field of distribution logistics.

# **Course-related learning outcomes**

Knowledge

1. Student knows the basic relationships in the distribution and supply chain logistics [P6S\_WG\_05]

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- 2. Student is able to recognize the basic phenomena characteristic of distribution and supply chain logistics [P6S\_WG\_08]
- 3. Student is able to explain in detail the characteristic concepts for distribution and supply chain logistics [P6S\_WG\_08]
- 4. Student is able to formulate the basic relationships in the distribution and supply chain logistics [P6S\_WK\_04]
- 5. Student is able to identify contemporary trends in distribution and supply chain logistics [P6S WK 05]
- 6. Student is able to characterize the best practices in distribution and supply chain logistics[P6S\_WK\_06]

#### Skills

- 1. Student is able to search based on the literature on the subject and other sources and present information on the problem of designing the distribution system in an orderly manner [P6S\_UW\_01]
- 2. Student is able to present, using properly selected means, the designed distribution system [P6S\_UK\_01]
- 3. Student is able to prepare and present an oral presentation on specific issues related to the organization of the distribution system [P6S\_UK\_02]
- 4. Student is able to independently develop a given distribution system project [P6S UW 07]
- 5. Student is able to formulate, using analytical and simulation methods, the task of designing a distribution system [P6S\_UW\_03]
- 6. Student can economically assess the selected distribution system [P6S\_UW\_03]
- 7. Student is able to make a critical analysis of the designed or existing distribution system [P6S\_UW\_06]
- 8. Student is able to design a distribution system using appropriate methods and techniques [P6S\_UU\_01]

#### Social competences

- 1.Student is aware of the need to learn lifelong solutions in distribution logistics [P6S KK 02]
- 2. Student is willing to cooperate and work in a group within the development of the distribution system project [P6S\_KO\_02] [P6S\_KR\_02]
- 3. Student is able to correctly identify and resolve dilemmas related to the profession of logistics working in the sphere of distribution [P6S\_KR\_01]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: final exam written answer to the questions asked.

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Project: on the basis of the project and its final defense.

#### **Programme content**

Lecture: Essence, tasks and functions of distribution logistics. Distribution channel theory. Forms of distribution. Types and functions of intermediaries in distribution channels. Shaping of assortment in the point of view of distribution logistics. Students are also familiar with selected issues important for distribution logistics: center of gravity method, centralization and decentralization of stocks, distribution regirement planning, analysis of distribution center functioning.

Project: Application of a spreadsheet to build a model of a distribution network, including: center of gravity method for the location of distribution centers, the square root method in inventory management in the distribution network, route planning under specific limiting conditions, optimization of distribution logistics costs, multi-channel sales in the distribution network.

## **Teaching methods**

Lecture: information lecture, conversatory lecture, problem lecture.

Project: classic problematic method, case study method.

# **Bibliography**

#### Basic

- 1. Cyplik P., Hadaś Ł., Fertsch M., Zarządzanie dystrybucją, Wydawnictwo Politechniki Poznanskiej, Poznań 2011.
- 2. Bendkowski J., Pietrucha-Pacut M., Podstawy logistyki w dystrybucji, Wydawnictwo Politechniki Śląskiej, Gliwice 2003.
- 3. Domański R., Hadaś Ł., Kształtowanie systemu logistycznej obsługi klieneta w warunakach realizacji strategii omnichannel, Gospodarka Materiałowa i Logistyka, 07/2017, https://www.pwe.com.pl/files/1402371585/file/gmil 7 2017 nr int.pdf

#### Additional

- 1. Śliwczyński B., Koliński A., Organizacja i monitorowanie procesów dystrybucji, Instytut Logistyki i Magazynowania, Poznań 2014.
- 2. Cyplik P., Głowacka D., Fertsch M., Logistyka przedsiębiorstw dystrybucyjnych, Wyższa Szkoła Logistyki, Poznań 2008.
- 3. Rutkowski K. (red.), Logistyka dystrybucji, Wydawnictwo Difin, Warszawa 2001.
- 4. Domański R., How to measure omnichannel? Marketing indicator-based approach Theory fundamentals, LogForum 17 (3) 2021, https://www.logforum.net/pdf/17 3 5 21.pdf





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# 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 exam, project	20	1,0
preparation) <sup>1</sup>		

4

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