# POZNAN UNIVERSITY OF TECHNOLOGY



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

# **COURSE DESCRIPTION CARD - SYLLABUS**

#### Course name Distribution Logistics [S1Log2>LD]

| Course   |                         |                                   |                          |
|--|-------------------------|-----------------------------------|--------------------------|
| Field of study<br>Logistics  |                         | Year/Semester<br>2/4              |                          |
| Area of study (specialization)   |                         | Profile of study general academic |                          |
| Level of study<br>first-cycle  |                         | Course offered in polish          |                          |
| Form of study<br>full-time   |                         | Requirements compulsory           |                          |
| Number of hours  |                         |                                   |                          |
| Lecture<br>15  | Laboratory classe<br>0  |                                   | Other (e.g. online)<br>0 |
| Tutorials<br>0   | Projects/seminars<br>15 | 5                                 |                          |
| Number of credit points 2,00   |                         |                                   |                          |
| Coordinators<br>dr hab. inż. Piotr Cyplik prof. PP<br>piotr.cyplik@put.poznan.pl |                         | Lecturers                         |                          |

#### **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] 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. 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 reqirement 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. Čyplik 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

#### Breakdown of average student's workload

|  | Hours | ECTS |
|--|-------|------|
| Total workload   | 50    | 2,00 |
| Classes requiring direct contact with the teacher  | 30    | 1,00 |
| Student's own work (literature studies, preparation for laboratory classes/<br>tutorials, preparation for tests/exam, project preparation) | 20    | 1,00 |