

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

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

# **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Logistics

Course

Field of study Year/Semester

Logistics 1/1

Area of study (specialization) Profile of study

general academic Course offered in

First-cycle studies Polish

Form of study Requirements part-time compulsory

Number of hours

Level of study

Lecture Laboratory classes Other (e.g. online)

16

Tutorials Projects/seminars

16

**Number of credit points** 

6

#### Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

Ph.D., D,Sc., Eng. Agnieszka Stachowiak,

**University Professor** 

Mail to: agnieszka.stachowiak@put.poznan.pl

Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

#### **Prerequisites**

Knowledge of basic economic conditions, the ability to analyze cause-effect relationships and the use of quantitative methods to solve simple decision problems.



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## **Course objective**

To provide students with basic knowledge in the field of logistics: logistics processes, logistics functions, methods and tools used in logistics as well as to develop skills in the selection and use of appropriate methods and tools to solve simple problems in the field of logistics. Creating the basis for developing logistic competence during studies.

## **Course-related learning outcomes**

## Knowledge

Student knows the basic concepts of logistics, including its definitions, processes and subsystems of the logistics system, knows the essence of the supply chain and the concept of supply chain management [P6S WG 05]

Student knows the basic management issues specific to logistics and supply chain management, including issues of planning, organization and control of logistics processes [P6S\_WG\_08]

Student knows the basic relationships in the framework of logistics and its specific issues and supply chain management, including transactional relationships between transport costs, inventory level, customer service level [P6S WK 04]

Student knows the basic phenomena and contemporary trends characteristic of logistics and its specific issues and supply chain management, understands the impact of globalization on logistics processes [P6S\_WK\_05]

#### Skills

Student is able to search based on the literature on the subject and other sources and in an orderly manner present information about the problem within the logistics and its specific issues and supply chain management [P6S UW 01]

Student is able to apply appropriate techniques and methods to solve the problem within logistics, determines the level of inventory, costs related to inventory, level of customer service, plans transport tasks [P6S\_UW\_03]

Student is able to assess and make a critical economic analysis of selected problems, falling within the scope of logistics and its detailed issues and supply chain management, including issues related to determining the batch size, inventory level and transport tasks [P6S\_UW\_06]

Student is able to present, using properly selected means, a problem within logistics and its specific issues as well as supply chain management, discussing the results of solved logistics tasks [P6S\_UK\_01]

Student is able to identify changes in requirements, standards, regulations, technical progress and the reality of the labor market, understands that the requirements in relation to logistics change over time [P6S\_UU\_01]

#### Social competences

Student is aware of the importance of knowledge in the field of logistics and supply chain management



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in solving cognitive and practical problems, understands and appreciates the importance of expert knowledge [P6S\_KK\_02]

Student is aware of initiating activities related to the formulation and transfer of information and cooperation in society in the field of logistics, understands and appreciates the importance of interdisciplinary cooperation [P6S\_KO\_02]

Student is aware of the responsible fulfillment, correct identification and resolution of dilemmas related to the logistics profession [P6S KR 01]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge acquired as part of the lecture is verified by an exam conducted in an exam session. The exam has an oral form, students answer 3 questions drawn from the pool of 100 questions. The answers to the questions are assessed separately on a 2-5 scale, the final grade is the average of partial grades. The list of questions is available on the eKursy platform.

Skills acquired as part of the tutorials are verified on the basis of two final tests, consisting of 3 tasks with different points depending on their level of difficulty. Passing threshold: 60% of points.

## **Programme content**

Lecture: Logistics - genesis and evolution. Logistics - definitions and functions (functional and material scope of logistics). Logistic system - characteristics and elements. Order processing and logistic customer service: the essence and parameters of the process. Decoupling point. Transport: the essence and parameters of the process. Warehousing (the essence and parameters of the process) and inventory. Logistic management and logistics strategies: solutions currently used in logistics, including IT tools and strategies for the integration of material flows, supply chains and global logistics.

Exercises: Demand forecasting. The level of customer service in probabilistic and quantitative terms. Material requirements planning. Ordering system based on the information level; safety stock. Economical order quantity with seasonality. Transport issues.

## **Teaching methods**

Lecture: multimedia presentation

Tutorial: a multimedia presentation, presentation illustrated with examples given on a blackboard and performing tasks given by the teacher - practical exercises.

## **Bibliography**

Basic

- 1. Kisperska-Moroń D., Krzyżaniak S. (red), Logistyka, Wydawnictwo Biblioteka Logistyka, Poznań, 2009.
- 2. Bozarth C., Handfield R., Wprowadzenie do zarządzania operacjami i łańcuchem dostaw: kompletny podręcznik logistyki i zarządzania dostawami, Wydawnictwo Helion, Gliwice 2009.



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- 3. Krzyżaniak S., Podstawy zarządzania zapasami w przykładach, Wydanie 4, Wydawnictwo Instytutu Logistyki i Magazynowania, Poznań, 2008.
- 4. Skowronek C., Sarjusz-Wolski Z., Logistyka w przedsiębiorstwie, PWE, Warszawa, 2012.

#### Additional

- 1. Szymonik A., Nowak I., Współczesna logistyka, Wydawnictwo Difin, Warszawa, 2017.
- 2. Krzyżaniak S., Cyplik P., Zapasy i magazynowanie, Tom 1 Zapasy, Wydanie 2, Wydawnictwo Instytutu Logistyki i Magazynowania, Poznań, 2008.
- 3. Niziński S., Ligier K., Żurek J., Logistyka dla inżynierów, Wydawnictwo Komunikacji i Łączności, Warszawa, 2012.
- 4. Hadaś Ł., Stachowiak A., Cyplik P., Production-logistic system in the aspect of strategies for production planning and control and for logistic customer service [w:] Logforum 10 (3), 2014.

## Breakdown of average student's workload

|   | Hours | ECTS |
|---|-------|------|
| Total workload  | 150   | 6,0  |
| Classes requiring direct contact with the teacher   | 40    | 1,5  |
| Student's own work (literature studies, preparation for tutorials, preparation for tests/exam) <sup>1</sup> | 110   | 4,5  |

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