### POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Operational management in logistics [S1Log2>ZOwL]

Course

Field of study Year/Semester

Logistics 2/3

Area of study (specialization) Profile of study

general academic

Level of study Course offered in

first-cycle Polish

Form of study Requirements full-time compulsory

Number of hours

Lecture Laboratory classes Other 0

15

**Tutorials** Projects/seminars

15 0

Number of credit points

2,00

Coordinators Lecturers

dr hab. inż. Katarzyna Grzybowska prof. PP katarzyna.grzybowska@put.poznan.pl

# **Prerequisites**

Student has a basic knowledge of management and organizational processes, including logistics processes, identify the stages of material flow in the enterprise. Student able to identify the stages of material flow in the enterprise.

# Course objective

Introduce students with the problems of operational management in logistics processes. To develop skills in operating (current) management of logistics processes in the enterprise.

# Course-related learning outcomes

#### Knowledge:

- 1. Student knows the basic concepts of operational management in logistics [P6S WG 05]
- 2. Student knows the basic management issues specific to operational management in logistics [P6S WG 08]
- 3. Student knows the basic relationships in the framework of operational management in logistics [P6S WK 04]
- 4. Student knows the basic phenomena and contemporary trends characteristic of operational

management in logistics [P6S WK 05]

5. Student knows the best practices in operational management in logistics [P6S WK 06]s

#### Skills:

- 1. Student can search based on literature and other sources and present information on a problem within operational management in logistics [P6S UW 01]
- 2. Student is able to apply to solve the problem within the studied subject appropriate experimental and measuring techniques in operational management in logistics [P6S UW 03]
- 3. Student is able to assess and make a critical economic analysis of the selected problem, which falls within the framework of operational management in logistics [P6S UW 06]
- 4. Student is able to design, using appropriate methods and techniques, an object, system or process that meets the requirements of operational management in logistics [P6S\_UW\_07]
- 5. Student is able to present, using properly selected means, a problem within operational management in logistics [P6S\_UK\_01]
- 6. Student is able to identify changes in requirements, standards, regulations, technical progress and reality of the labor market, and based on them determine the needs of supplementing knowledge [P6S\_UU\_01]

#### Social competences:

- 1. Student is aware of the recognition of the importance of knowledge in the field of operational management in logistics in solving cognitive and practical problems [P6S KK 02]
- 2. Student is aware of initiating activities related to the formulation and transfer of information and cooperation in society in the field of operational management in logistics [P6S KO 02]
- 3. 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:

Lectures: Formative assessment: acquired knowledge is verified on the basis of answers to questions about the material discussed during the lectures (two tests, differently scored) and the student's own work. Summative rating: acquired knowledge is verified on the basis of credit in writing (open questions, various points); Passing threshold: 60% of points.

Exercises: Formative assessment: the acquired knowledge is verified on the basis of activity during the classes and assessment of the current progress of partial tasks carried out during the exercises (independent and group work, expressing own views and opinions). Summative rating: the acquired knowledge is verified on the basis of the points obtained from the partial tasks of the forming assessment; Passing threshold: 60% of points.

# Programme content

- general management issues in logistics processes
- essence, characteristics and problems of logistics management
- low-code use platform digitization of the scope of (current) management of logistics processes in enterprises

#### Course topics

Lecture: Logistic system. Process management. Process management and change management, Flow and synchronization. Mapping business processes, their evaluation, correction and creation of new processes. Mapping methods - algorithms, IDEF techniques - Identification of errors in algorithms and schemes and the correct structure of algorithms. Logistics procedures - diagrams of selected activities. IT support - WEBCON BPS - Defining symbols; Workflow visualization. Identification of process improvement opportunities (DMAIC; PDCA), Identification of opportunities for improvement (Kaizen).

Identify, track and implement key performance indicators (KPIs). Leadership in operational management. Leader and manager. Implementation of a structured communication process.

Exercises: Identification of errors in algorithms, alternative maps and diagrams, and proper construction. Defining and building the algorithm of the English-language information management system about the WEBCON BPS IT system. Identifying activities that add and do not add value. Development of the technological process algorithm - development of the procedure. Maps according to the IDEF methodology.

Value mappings.

# **Teaching methods**

Lectures: Informative lecture (multimedia presentation, illustrated with examples), Conversation lecture.

Exercises: Practical method - method of cases, Demonstration method, Leading text method, Simulation method, Problem solving techniques (concerning the processes: Defining the problem; Gathering information; Identifying alternative solutions), IT support - Webcon BPS.

## **Bibliography**

#### Basic:

- 1. Waters D., Zarządzanie operacyjne, PWN, Warszawa, 2007
- 2. Bardi E.J., Coyle J.J., Langley C.J., Zarządzanie logistyczne, PWE, Warszawa, 2002
- 3. Grzybowska K., Łopatowska J., Zarządzanie operacyjne w łańcuchu dostaw [w:] Zawadzka L., Zieliński
- G. (red.), Zarządzanie operacyjne w teorii i praktyce, Systemy, procesy, narzędzia, Wydawnictwo Politechniki Gdańskiej, Gdańsk, 2013.
- 4. Jasiński Z. (red.), Podstawy zarządzania operacyjnego, Wolters Kluwer, Gliwice, 2010.
- 5. Szczepańska K., Bugdol M. (red.), Podstawy zarządzania procesami, Difin, Warszawa, 2016.

#### Additional:

- 1. Kisperska-Moroń, Krzyżaniak S. (red.), Logistyka, Biblioteka Logistyka, Poznań, 2009.
- 2. Bitkowska A., Zarządzanie procesowe we współczesnych organizacjach, Difin, Warszawa, 2013.

# 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/tutorials, preparation for tests/exam, project preparation) | 20    | 1,00 |