



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Operational management in logistics [S1Log2>ZOwL]

Course

Field of study

Logistics

Year/Semester

2/3

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

15

Laboratory classes

0

Other

0

Tutorials

15

Projects/seminars

0

Number of credit points

2,00

Coordinators

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

Lecturers

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: 50% 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: 50% 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:

Introduction to Operations Management; Process Management; Flow and Synchronization; Low-Code Platforms for Process Automation; Characteristics of Processes Recommended for Automation; IT Support (WEBCON BPS); Defining Symbols; Workflow Visualization.

Process Maturity; Enterprise Process Maturity Models; Process Characteristics; Business Process Inventory.

Process Prototyping; Understanding User Needs; Experience Map; Identifying Processes for Automation. Mapping Business Processes, Evaluating Them, Correcting Them, and Creating New Processes; Using Business Test Scenarios (business scenarios, process flow, alternative flows, variables yielding different results, negative tests, invalid data); Data Sources (process information, constant values, dynamic queries, synchronizing data from other systems, hierarchical, structured/unstructured).

Assessing the Usability of a Process Prototype; Testing the Process Prototype; Continuous Progress Measurement.

Change Management; Identifying opportunities for improving PDCA and DMAIC processes; Identifying opportunities for improvement (Kaizen); Identifying, tracking, and implementing key performance indicators; KPI optimization and program.

Implementing a structured communication process. Best practices.

Exercises:

Defining symbols and building business process algorithms using the WEBCON BPS IT system; Identifying activities that add and do not add value.

Understanding user needs; User Experience; Experience Map; Personas.

Designing process workflows.

Designing forms and matrices.

Designing reports; Introduction to business analytics.

User testing and evaluation.

Teaching methods

Lecture:

Informational lecture (multimedia presentation, illustrated with examples, demonstration),

Conversational lecture.

Exercises:

Project-based workflow lab,

Business test scenarios,

Role-based learning,

Task sprints,

Peer review and feedback loop,

Prototyping and testing,

IT support - Webcon BPS.

Bibliography

Basic:

1. Waters D., Zarządzanie operacyjne, Wydawnictwo Naukowe PWN, Warszawa, 2007.

2. Bardi E.J., Coyle J.J., Langlely 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.

6. Grzybowska K., Hoffa-Dąbrowska P., Improving the Practice of Acquiring Knowledge in the Field of BPM – A Pedagogical Framework, in: Business Process Management: Responsible BPM Forum, Process Technology Forum, Educators Forum, ed. Er Mahendrawathi, Cham, Switzerland, Springer, 2026

Supplementary material:

1. Bitkowska A., Zarządzanie procesowe we współczesnych organizacjach, Difin, Warszawa, 2013.

2. Abramek, E., Korzyści wynikające z digitalizacji procesów organizacji z zastosowaniem narzędzi Low-Code/No-Code. SZTUCZNA INTELIGENCJA I AUTOMATYZACJA PROCESÓW BIZNESOWYCH, 13, 2025.

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