



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Designing logistics processes [N1Log2>PPL1]

Course

Field of study

Logistics

Year/Semester

3/5

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

part-time

Requirements

compulsory

Number of hours

Lecture

16

Laboratory classes

8

Other

0

Tutorials

0

Projects/seminars

0

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

Student knows the basic concepts of management basics, logistics basics, computer science basics, inventory management basics, operational and supply chain management basics, understands enterprise management mechanisms.

Course objective

Acquiring skills and competences in the design and management of logistics processes.

Course-related learning outcomes

Knowledge:

1. The student knows the basic concepts of logistics and supply chain management along with detailed issues regarding the process approach in logistics. [P6S_WG_05]
2. The student knows the basic management issues specific to the design of supply chain logistics processes [P6S_WG_08]
3. The student knows the basic relationships occurring in the design and management of logistics processes, also at the supply chain level [P6S_WK_04]
4. The student knows the basic phenomena and contemporary trends characteristic of the design of

logistics processes, also at the supply chain level [P6S_WK_05]

5. The student knows the basic methods, techniques, tools and materials used in preparing to conduct scientific research and solving simple engineering tasks in the field of designing logistics processes. [P6S_WK_07]

Skills:

1. The student is able to search based on the subject literature and other sources and present information regarding the design of logistics processes in an orderly manner [P6S_UW_01]
2. The student is able to use appropriate experimental and measurement techniques, including computer simulation, in the design of logistics processes [P6S_UW_03]
3. The student is able to design logistics processes both at the enterprise and supply chain levels using appropriate methods and techniques [P6S_UW_07]
4. The student is able to present, using appropriately selected means, the design and results of simulation experiments related to the design of logistics processes [P6S_UK_01]
5. The student is able to identify changes in requirements, standards, regulations, technical progress and labor market reality, and on their basis determine the need to supplement knowledge in the field of designing logistics processes [P6S_UU_01]

Social competences:

1. The student is aware of the importance of knowledge in the design of logistics processes and their management in solving cognitive and practical problems [P6S_KK_02]
2. The student is able to design, plan and manage in an entrepreneurial way [P6S_KO_01]
3. Student is aware of the responsible fulfillment, correct identification and resolution of dilemmas related to the logistics profession [P6S_KR_01]
4. Student is aware of cooperation and work in a group on solving problems within logistics and supply chain management [P6S_KR_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: Formative assessment: case study concerning the construction of a model (map) of the process flow - evaluation of the report from the case study. Summative assessment: written exam in the form of open and closed questions, checking the knowledge obtained during the lecture, - pass 50% of points. Laboratory: Formative assessment: assessment of the ability to build a simulation model of the logistics process based on the model and report. Summative assessment: evaluation of the model and the report, pass 50% of points.

Programme content

Process approach, process design using computer simulation.

Course topics

Lecture: Functional and process orientation in company management. Process approach. Definition and generic classification of processes. Models and standardization of processes. Process mapping. Process design and implementation of changes. Methods and techniques for improving processes. Process management. Process design methodology using computer simulation. The use of industry 4.0 techniques and technologies in the design of logistics processes. Methods of designing and improving logistics processes using digital twin technology.

Laboratory: Rules for using simulation software dedicated to logistics, basic models of an assembly station, quality control, use of a logistics navigator.

Teaching methods

Lecture: informative lecture.

Laboratory: laboratory method.

Bibliography

Basic:

1. Waters. D., Logistics An Introduction to Supply Chain Management, Palgrave Macmillan, 2003.

2. Pacholski, L., Cempel, W., Pawlewski P., Reengineering, Reformowanie procesów biznesowych w przedsiębiorstwie, WPP, Poznań, 2009.
3. Nowosielski S. (red.), Procesy i projekty logistyczne, Wydawnictwo UE, Wrocław, 2008.
4. Pawlewski P., Projektowanie systemów i procesów logistycznych, WPP, Poznań, 2013.
5. Beaverstock M., Greenwood A., Lavery E., Nordgren W. Applied Simulation, Flexsim Software Products, 2011.

Additional:

1. Bozarth, C., Handfield, R.B., Wprowadzenie do zarządzania operacjami i łańcuchem dostaw, Helion, Gliwice, 2007.
2. Pawlewski P., Symulacja wsparciem dla Lean, Kaizen (37), nr 2, kwiecień-maj 2019, s. 32-37.
3. Pawlewski P., 7 rzeczy dla milk-run, Kaizen (38), nr 3, czerwiec-lipiec 2019, s. 43-47.

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	26	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	74	2,50