



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Operations management for logistics [S2Log2E-SL>ZOwL]

Course

Field of study

Logistics

Year/Semester

1/2

Area of study (specialization)

Logistics Systems

Profile of study

general academic

Level of study

second-cycle

Course offered in

English

Form of study

full-time

Requirements

elective

Number of hours

Lecture

15

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

30

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

Knowledge of logistics processes and their course. Knowledge of management methods and tools implemented at operational level.

Course objective

To familiarize students with the goals, essence and principles of operations management in logistics. Students learn methods and tools used in this area.

Course-related learning outcomes

Knowledge:

1. Student knows the relationships between elements of operations management and their relationship with logistics [P7S_WG_01]
2. Student knows the issues of production engineering and uses their knowledge in the context of operations management in logistics [P7S_WG_02]
3. Student knows the issues of process mapping, process orientation in logistics and simulation of logistics operations [P7S_WG_03]
4. Student knows the extended concepts specific to operations management in logistics [P7S_WG_05]

5. Student knows the detailed methods, tools and techniques characteristic for operations management in logistics [P7S_WK_01]

Skills:

1. Student is able to gather based on the literature and other sources (in Polish and English) and provide information on operations management in logistics issues in an orderly manner [P7S_UW_01]
2. Student is able to communicate using properly selected means in the field of operations management in logistics with stakeholders involved in its processes [P7S_UW_02]
3. Student is able to make a critical analysis of technical solutions used in the operations management in logistics (in particular in relation to devices, facilities and processes) [P7S_UW_04]
4. Student is able to assess the usefulness and possibility of using new achievements (techniques and technologies) in the field of operations management in logistics [P7S_UW_06]
5. Student is able to design, using properly selected means, the operations management subsystem or a solution to improve the implementation of operations management in logistics [P7S_UK_01]
6. Student is able to formulate and solve problem tasks in the field of operations management in logistics through interdisciplinary integration of knowledge from the fields and disciplines used to design logistics systems [P7S_UO_01]
7. Student is able to identify changes in requirements, standards, regulations, technical progress and reality of the labor market in the field of logistics operations management in logistics, and on their basis to determine the need to supplement own knowledge and other [P7S_UU_01]

Social competences:

1. Student recognizes the cause-and-effect relationships in achieving the objectives and grades the significance of alternative or competitive tasks, taking into account the requirements and constraints of individual stakeholders [P7S_KK_01]
2. Student is aware of the responsibility for own work and readiness to comply with the rules of teamwork and taking responsibility for jointly implemented tasks and projects [P7S_KR_01]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: Knowledge obtained during lectures is verified by a colloquium conducted in the last class. The colloquium includes 5 open questions, evenly scored. The passing threshold is 50% of points.

Project: Skills obtained during project classes are verified during consultations regarding subsequent stages of the project (20% of the grade) and on the basis of the delivered project documentation prepared in accordance with the guidelines (50% of the grade) as well as the presentation and defense of the project (30% of the grade). The passing threshold is 50% of points.

Programme content

Analysis of the issues of Lead Time and implementation costs for different locations of the decoupling point in the supply chain, elements of operational management in the supply chain aspects.

Course topics

Lecture: The lecture will discuss the issues of Lead Time and implementation costs for different locations of the decoupling point in the supply chain, as well as delivery time, order processing time and response time, various categories of lead time (acquisition, production, distribution, delivery, order), together with factors affecting the delivery time. Operational management in the supply chain aspects will be introduced, covering planning cycle, business goals, logistics goals, creating plans and schedules of supply chain operations, task and resource balancing, inventory management in the supply chain, warehouse management and warehouse management, transport and forwarding management, logistics operator in the supply chain - third party and fourth party logistics, analysis of operational results of the chain operation - planned and actual performance, efficiency, level of use of logistic resources, index assessment of logistics subsystems in the supply chain.

Project: As part of the project, students will acquire practical skills in the field of operations management in logistics, in particular: operational decisions making based on process analysis.

Teaching methods

Lecture: informative lecture, chat on advantages and disadvantages of solutions presented.

Project: project method, project task carried out by groups of 3-4 people in accordance with the guidelines presented in class.

Bibliography

Basic:

1. Myerson P., Lean Supply Chain and Logistics Management, McGraw-Hill Education - Europe, 2012.
2. Reza Farahani Shabnam Rezapour, Laleh Kardar, Logistics Operations and Management, Elsevier, 2011.
3. Stachowiak A., Pawłyszyn I., Fertsch M., Oleśków-Szłapka J., The framework of the model of diffusion of technological innovations in competitive environment [w:] Proceedings of the 36th International Business Information Management Association Conference (IBIMA), 4-5 November 2020, Granada, Spain: Soliman K.S.(red.), Sustainable Economic Development and Advancing Education Excellence in the era of Global Pandemic, International Business Information Management Association, IBIMA, 2020, s. 7449-7468.

Additional:

1. Zijm H., Klumpp M., Regattieri A., Heragu S., Operations, Logistics and Supply Chain Management, Springer, 2019.
2. Kudelska I., Stachowiak A., Pawłowska M., The Framework of IT tools supporting layout redesign in a Selected Industrial Company [w:] Burduk A. (red.), Intelligent Systems in Production Engineering and Maintenance, Springer International Publishing, 2019, s. 360-369.

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	45	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	55	2,00