



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Exploitation of logistics systems

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### Course

Field of study

logistics

Area of study (specialization)

Level of study

First-cycle studies

Form of study

part-time

Year/Semester

3/6

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

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### Number of hours

Lecture

12

Tutorials

Laboratory classes

Projects/seminars

10

Other (e.g. online)

### Number of credit points

2

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### Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. Marek Fertsch

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60-965 Poznań

Responsible for the course/lecturer:



### Prerequisites

The student starting this subject should have basic knowledge of logistics and logistics engineering. He should also be able to obtain information from specified sources and be willing to cooperate as part of a team.

### Course objective

Mastering the student's knowledge, skills and social competences related to the exploitation of logistics systems.

### Course-related learning outcomes

#### Knowledge

knows the basic issues of construction, technology and techniques related to logistics [P6S\_WG\_01]

- known basic issues of mechanics, construction and operation of machines related to logistics [P6S\_WG\_02]

- knows the basic issues of mathematics and statistics in the study of the structure of economic and logistics phenomena [P6S\_WG\_04]

#### Skills

can apply the right experimental and measuring techniques to solve the problem within the studied subject, including computer simulation within logistics and its specific issues, and supply chain management [P6S\_UW\_03]

- is able to see in engineering tasks system and non-technical aspects as well as socio-technical, organizational and economic [P6S\_UW\_04]

- is able to choose the right tools and methods to solve the problem within logistics and supply chain management, and to use them effectively [P6S\_UO\_02]

- is able to identify changes in requirements, standards, regulations, technical progress and the reality of the labor market, and based on them determine the needs of supplementing knowledge [P6S\_UU\_01]

#### Social competences

- can plan and manage in an entrepreneurial manner [P6S\_KO\_01]

- is aware of initiating activities related to the formulation and transfer of information and cooperation in society in the field of logistics [P6S\_KO\_02]

- is aware of cooperation and work in a group to solve 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:

assessment based on laboratory results



grade based on written credit (exam)

### Programme content

Lecture: Basics of technical systems operation. Rules for operating technical systems. Logistic system as a technical system. Controlling the operation of technical systems. The concept of logistics support as the basis for the operation of the logistics system. Designing a logistics system in terms of its operation. Planning of logistics system operation.

Laboratory: 1. RFID technology. 2. Designing logistic labels. 3. Planning of transport routes. 4. Performing basic registration activities in the WMS program. 5. Area development project in the logistics system. 6. Using the racks - preliminary activities. 7. Use of racks - control of racks during operation.

### Teaching methods

1. Lecture: multimedia presentation, illustrated with examples on the board. 2. Projects: multimedia presentation illustrated with examples given on the board and performance of tasks given by the teacher.

### Bibliography

Basic

Legutko ST., Podstawy eksploatacji maszyn. Wydawnictwo Politechniki Poznańskiej, 1999.

Blanchard B., Logistics engineering and management, Prentice – Hall, Inc., Englewood Cliffs, New Jersey 1992

Fertsch M. (red)., Elementy inżynierii logistycznej, Wydawnictwo ILiM, Poznań, 2017

Additional

Pfohl H.- Ch., Systemy logistyczne. Podstawy organizacji i zarządzania. Wydawnictwo ILiM, Poznań, 2002.

Don Taylor G., Introduction to logistics Engineering, CRC Press, Taylor& Francis Group, Boca Raton, London, New York, 2009..

### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	22	
Student's own work (literature studies, preparation for exam, laboratory preparation) <sup>1</sup>	28	

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