



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Operating of logistics systems [N1Log2>ESL]

### Course

Field of study

Logistics

Year/Semester

3/6

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

10

Laboratory classes

8

Other

0

Tutorials

0

Projects/seminars

0

### Number of credit points

2,00

### Coordinators

prof. dr hab. inż. Marek Fertsch  
marek.fertsch@put.poznan.pl

### Lecturers

### 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:

1. The student knows the basic issues of construction, technology and techniques related to the operation of logistics systems [P6S\_WG\_01]
2. The student knows the basic issues of mechanics, construction and operation of machines used in logistics systems [P6S\_WG\_02]
3. The student knows the basic issues of mathematics and statistics in researching the structure of economic and logistic phenomena [P6S\_WG\_04]

#### Skills:

1. Student 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]
2. Student is able to see in engineering tasks system and non-technical aspects as well as socio-technical, organizational and economic [P6S\_UW\_04]
3. Student 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]
4. Student 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:

1. Student can plan and manage in an entrepreneurial manner [P6S\_KO\_01]
2. The student is aware of initiating activities related to the formulation and transfer of information and cooperation in society in the area of operation of logistics systems. [P6S\_KO\_02]
3. The student is aware of cooperation and team work to solve problems in the area of operation of logistics systems [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

### Programme content

Basics of technical systems operation. Rules for operating technical systems. Logistic system as a technical system.

### Course topics

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

### Teaching methods

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

### Bibliography

#### Basic:

1. Legutko S., Podstawy eksploatacji maszyn, Wydawnictwo Politechniki Poznańskiej, Poznań, 1999.
2. Blanchard B., Logistics engineering and management, Prentice - Hall, Inc., Englewood Cliffs, New Jersey, 1992.
3. Fertsch M. (red.), Elementy inżynierii logistycznej, Wydawnictwo ILiM, Poznań, 2017.

#### Additional:

1. Pfohl H.- Ch., Systemy logistyczne. Podstawy organizacji i zarządzania, Wydawnictwo ILiM, Poznań, 2002.
2. 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	2,00
Classes requiring direct contact with the teacher	18	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	32	1,00