

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS) pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

# **COURSE DESCRIPTION CARD - SYLLABUS**

Course name				
Informatic systems in logistics				
Course				
Field of study		Year/Semester		
Logistics		1/2		
Area of study (specialization)		Profile of study		
Corporate Logistics		general academic		
Level of study		Course offered in		
Second-cycle studies		Polish		
Form of study		Requirements		
part-time		compulsory		
Number of hours				
Lecture	Laboratory classes	Other (e.g. online)		
14	14			
Tutorials	Projects/seminars			
Number of credit points 5				
Lecturers				
Responsible for the course/lecturer: Ph.D., Eng., Katarzyna Ragin-Skorecka Mail to: katarzyna.ragin-		Responsible for the course/lecturer: Ph.D., D.Sc., Eng., Jacek Żak, University Professor Mail to: jacek.zak@put.poznan.pl		
				skorecka@put.poznan.pl
Faculty of Engineering Managament				Faculty of Engineering Managament
ul. J. Rychlewskiego 2, 60-965 Poznań		ul. Piotrowo 3, 61-138 Poznań		

#### Prerequisites

Has basic knowledge in computer science, logistics and management sciences

## **Course objective**

Students will learn about the main issues related to information systems used in logistics

## **Course-related learning outcomes**

#### Knowledge

1. Knows extended concepts for logistics and supply chain management as well as dependencies related to IT systems used in logistics [P7S\_WG\_01, P7S\_WG\_05]



EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS) pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

2. Knows detailed methods, tools and techniques characteristic in the context of information systems in logistics [P7S\_WK\_01]

3. Knows phenomena and contemporary trends and best practices in the context of information systems characteristic of logistics and its specific issues and supply chain management [P7S\_WK\_03, P7S\_WK\_04]

Skills

1. Is able to gather based on literature and other sources (in Polish and English) and present information on information systems in logistics in an orderly manner [P7S\_UW\_01]

2. Is able to communicate using properly selected means in a professional environment and in other environments using information systems as part of logistics and its specific issues, and supply chain management [P7S\_UW\_03]

3. Is able to apply the right experimental and measurement, information and communication techniques to solve the problem in the context of the IT system, including computer simulation in logistics and its specific issues, and supply chain management [P7S\_UW\_04]

4. Is able to assess the usefulness and possibility of using new achievements in the field of IT systems in logistics and functionally related areas [P7S\_UW\_06]

5. Is able to design, using properly selected means, an experiment, analysis process or scientific research solving a problem in the area of IT systems within logistics and its specific issues, and supply chain management [P7S\_UK\_01]

6. Is able to formulate and solve tasks related to IT systems through interdisciplinary integration of knowledge from the fields and disciplines used to design logistics systems [P7S\_UO\_01]

7. Is able to identify for IT systems in logistics changes in requirements, standards, regulations, technical progress and the reality of the labor market, and based on them determine the needs to supplement own and other knowledge [P7S\_UU\_01]

# Social competences

1. Is aware of the responsibility for own work and readiness to comply with the principles of teamwork and taking responsibility for jointly implemented tasks with particular emphasis on the use of IT systems in logistics [P7S\_KR\_01]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows: Lectures: problem tasks (4 tasks of 15 points), final test - exam (40 points); pass mark: 50%

Laboratories: current class work, created database; pass mark: 50%

## Programme content

As part of the course, an overview of issues related to the use of IT systems in logistics will be presented.



EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS) pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

The scope of the lectures includes: Integrated IT systems in the enterprise; Database, model database, user interface in an IT system; systems supporting electronic data exchange; Product coding and identification systems, warehouse management systems - WMS; IT systems supporting supply chain management - SCM and customer relationship management systems - CRM; IT systems supporting production management - CIM and decision support systems - SWD; Selected mobile IT systems in logistics

The scope of laboratories includes: development of a database model and its implementation

## **Teaching methods**

Lecture - informative lecture, seminar, case study

Laboratories - laboratory method, project method, brainstorming, demonstration method

#### **Bibliography**

Basic

1. Milewski R., Stankiewicz G.: Systemy informatyczne w logistyce. Wyd. WSOWL, Wrocław 2015 (Skrypt i materiały do ćwiczeń).

2. Bojar W., Rostek K., Knopik L.: Systemy wspomagania decyzji. PWE, Warszawa 2014.

3. Szymonik A.: Technologie Informatyczne w Logistyce, Placet, Łódź 2010.

4. Majewski J.: Informatyka dla logistyki, Biblioteka Logistyka, Poznań 2006.

5. Kanicki T.: Systemy informatyczne w logistyce (Computer systems in logistics), Economy and Management – No. 4, 2011, ss. 86 – 97.

6. Żak J., Hadas Y., Rossi R. (Eds.): Advanced Concepts, Methodologies and Technologies for Transportation and Logistics. Springer, Heidelberg 2018.

## Additional

 Jain L., Peng Lim C.(Eds.): Handbook on Decision Making. Springer Verlag, Berlin – Heidelberg, 2010. (Wybrane rozdziały, np. Mora M. (et al): Intelligent Decision Support Systems Methodology ss. 29-54; Żak J.: Decision Support Systems in Transportation), ss. 249 – 294.

2. Szymonik A.: Informatyka dla potrzeb logistyka(i), Wyd. PWN, Warszawa 2015



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# Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,0
Classes requiring direct contact with the teacher	28	1,0
Student's own work (literature studies, preparation for laboratory	97	4,0
classes, preparation for exam, completing problem tasks, creating a		
database) <sup>1</sup>		

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