COURSE DESCRIPTION CARD - SYLLABUS

Course name
Computer systems in logistics [N2Log2>SIwL]

Course

Field of study
Logistics

Year/Semester
1/1

Area of study (specialization)
–

Profile of study
general academic

Level of study
second-cycle

Course offered in
Polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
14

Laboratory classes
16

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

4,00

Coordinators

dr inż. Katarzyna Ragin-Skorecka
katarzyna.ragin-skorecka@put.poznan.pl

Lecturers

Prerequisites

Student 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. Student 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]
2. Student knows detailed methods, tools and techniques characteristic in the context of information systems in logistics [P7S_WK_01]
3. Student 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. Student 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. Student 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. Student 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. Student 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. Student 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. Student 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. Student 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. Student 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:

Lecture: problem tasks, final test.
Laboratory: current work in class.

Programme content

Lecture: As part of the course, an overview of issues related to the use of IT systems in logistics will be presented. The scope of classes includes: Integrated IT systems in an enterprise. Database, model database, user interface in the IT system; systems supporting electronic data interchange. Product coding and identification systems, warehouse management systems - WMS. Information systems supporting supply chain management - SCM and customer relationship management systems - CRM. IT systems supporting production management - CIM and decision support systems - SWD. Selection and assessment of information systems, practical aspects related to the implementation of information systems. Selected mobile IT systems in logistics.
Laboratory: Implementation of a selected IT system (application) in logistics.

Course topics

none

Teaching methods

Lecture: informative lecture, seminar, case study.
Laboratory: laboratory method, project method, brainstorming, demonstration method.

Bibliography

Basic:
1. Milewski R., Stankiewicz G., Systemy informatyczne w logistyce, Wydawnictwo 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, s. 86-97.

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

Additional:
1. 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, s. 29-54; Żak J., Decision Support Systems in Transportation, s. 249-294).
2. Szymonik A., Informatyka dla potrzeb logistyka(i), Wydawnitwo Naukowe PWN, Warszawa, 2015.

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	30	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	70	2,50