# International University of Logistics and Transport in Wrocław

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| **Leading** | | | | | |
| **Item** | **IT systems in logistics** | | | | |
| **Module** | **O** | **ECTS points** | **3** | **Reference number of the study program** | **L/2024/SPS/S/P - L/2024/SPS/N/P** |

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| **Direction** | **Specialty** | **Academic year** |
| **LOGISTICS** | **Trade and distribution logistics / Transport safety** | updated syllabus |
| **Term** | III | **Year of study** II |

| **Form of studies** | **Stationary** | | | | **Part-time** | | | |
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| **Form of classes** | **Lecture** | **Exercises** | **Laboratories** | **Design** | **Lecture** | **Exercises** | **Laboratories** | **Design** |
| **Number of hours** | | | **24** | | | | **21** | |
| **TOGETHER** | **24** | | | | **21** | | | |

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| **Objective of the course** | The aim of this course is to familiarize students with the role, functions, and applications of IT systems supporting logistics processes in enterprises and supply chains. Students gain knowledge about the classification, operating principles, and possibilities of using IT tools in the planning, implementation, and control of logistics processes, and also develop the ability to analyze and select IT solutions that increase the efficiency of logistics management. |

**Minimum knowledge required from the student before starting classes**

functioning of logistics processes (transport, warehousing, inventory management, supply chain), basics of IT and computer operation (operating system, office packages, working with data), elementary principles of business management, basic concepts related to information systems and information flow in an organization.

**Recommended literature to study before starting classes**

**"Winston L. 2014: Marketing Analytics - Data-Driven Techniques with Microsoft Excel, Wydawnictwo Wayne L Winston, Bloomington**

| **SUBJECT-SPECIFIC LEARNING OUTCOMES (SLE)** | | | **KEU** | **EVALUATION METHODS** | |
|---|---|---|---|---|---|
| | **CODE** | **FORM** | **CODE** | **CODE** | **FORM** |
| **KNOWLEDGE** | **W01** | Knows the methods of acquiring and processing logistics data and the role of IT systems in logistics. | K1_W03_L_P | **MO6** | Written test in the form of a closed, single-choice test |
| | **W02** | Knows the organizational, economic and technological conditions of functioning of IT-supported logistics processes. | K1_W10_L_P | **MO6** | Written test in the form of a closed, single-choice test |
| | **W03** | Knows the principles of operation of IT systems used in logistics, including ERP, WMS and TMS systems. | K1_W11_L_P | **MO6** | Written test in the form of a closed, |
| **SKILLS** | **U01** | Is able to use IT systems to collect, analyze and evaluate logistics data. | K1_U04_L_P | **MO10** | Passing the project |
| | **U02** | Is able to identify logistical problems requiring IT support and propose solutions using IT systems. | K1_U07_L_P | **MO10** | Passing the project |
| | **U03** | Is able to analyze logistics processes and assess the possibilities of applying modern information technologies in logistics. | K1_U11_L_P | **MO10** | Passing the project |
| **SOCIAL COMPETENCES** | **K01** | Is ready to independently develop competences in the field of IT systems and teamwork in solving logistical problems. | K1_K04_L_P | **MO15** | Assessment of activity during classes |
| | Laboratories | 1. Introduction to ERP Systems in Logistics 2. Basics of WMS (Warehouse Management System) 3. Transport Management System (TMS) 4. Analysis and Visualization of Logistics Data 5. Simulating Logistics Processes Using Digital Tools 6. Forecasting Material Demand and Requirements 7. Logistics 4.0 and Industry 4.0 in Practice – Case Studies of Implementing Modern Technologies (IoT, RFID, Automation) in Logistics 8. Integrating IT Systems in the Supply Chain – Exercises in the Flow of Information Between ERP, WMS, and TMS 9. Analysis of Logistics Performance Indicators (KPIs) – Practical Use of IT Systems to Assess Logistics Processes 10. Solving Logistics Problems Using IT Systems | | | |
| | Projects | | | | |

| **Teaching methods** | **CODE** | **FORM** |
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| | **MD16** | **Exercises – solving tasks and problems** |
| | **MD8** | **Project method** |

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| | 1 | Dastbaz M. 2015: Green Information Technology: A Sustainable Approach, Elsevier LTD, Oxford |

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| **Compulsory literature** | **2** | Ramya A. 2023: Fundamentals of Information Technology, Wydawnictwo MJP, Londyn |
| | **3** | Dawson C. 2024: Projects in Computing and Information Systems: A Student's Guide, Wydawnictwo Pearson International, Poznań |
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| **Additional literature** | **1** | Christopher M. 2023: Logistics and Supply Chain Management, Wydawnictwo Financial Times Prent. Londyn |
| | **2** | Brauneis. F 2024: Intellectual Property Protection of Fact based Works Copyright and Its Alternatives, Wydawnictwo Edward Elgar Publishing Ltd, Londyn |

| **Conditions for passing the course** |
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| Passing the course requires passing the laboratory exercises and, based on that, taking the written exam. Passing the laboratory exercises requires passing the tests—control papers and projects. The final grade is composed of the laboratory assessment (60%) and the exam assessment (40%), with passing grades in both the laboratory and the exam required. Passing the exam requires 75% correct answers. |