University of Gdańsk

Subject card

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|---|---|---|---|
| Subject name and code | IT Systems in Logistics, PG_00199899 | | |
| Field of study | Economics | | |
| Date of commencement of studies | October 2026 | Academic year of realisation of subject | 2028/2029 |
| Education level | Bachelor's studies | Subject group | Obligatory subject group in the field of study<br>Optional subject group<br>Subject group related to scientific research in the field of study |
| Mode of study | part-time studies | Mode of delivery | at the university |
| Year of study | 3 | Language of instruction | Polish |
| Semester of study | 5 | ECTS credits | 3.0 |
| Learning profile | academic | Assessment form | credit |
| Conducting unit | Department of Logistics -> Faculty of Economics -> Rector | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr Beata Chmiel | |
| | Teachers | | |

**Lesson types**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 0.0 | 20.0 | 0.0 | 7.0 | 0.0 | 27 |

E-learning hours included: 0.0

**Learning activity and number of study hours**

| Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | Self-study | SUM |
|---|---|---|---|---|
| Number of study hours | 27 | 0.0 | 48.0 | 75 |

**Subject objectives**

1. Introduction of students to the collection of integrated IT systems in logistics.
2. Introduction of students to the classification of tools used for resource planning in logistics: ERP, WMS, and BI classes.
3. Presentation of basic concepts in information logistics, including workflow and document circulation within an enterprise.
4. Preparing students to use advanced solutions in IT systems in logistics, especially global ERP systems, WMS systems, and the use of barcodes and RFID technology.

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [EKONL3_W06] has an advanced knowledge of selected methods and tools, including statistical and econometric techniques, for describing economic agents and structures as well as social institutions and the processes taking place in them | The student has advanced knowledge of IT solutions that support the implementation of logistics processes in various types of organizations. | [SW4] test/exam - oral or written |
| [EKONL3_U03] is able to analyse the causes and course of specific economic and social processes and phenomena, and accurately analyse these phenomena using adequate methods and tools economic and social | The student is able to manage the information flow process, including documentation, using appropriate IT methods and tools, while preparing the project to be presented in class. | [SU2] presentation/project/paper/ report<br>[SU8] observation of student's independent or team work |
| [EKONL3_K05] correctly identifies, diagnoses and resolves professional dilemmas and different options for solutions | The student can identify and resolve dilemmas related to the use of IT systems in the execution of logistics processes. | [SK1] oral statement/conversation/ discussion<br>[SK2] presentation/project/paper/ report<br>[SK8] observation of student's independent or team work |

<table>
<tr><td>Subject contents</td><td>1. Information system as a component of information systems.<br>2. Demand and supply of information in information systems.<br>3. Network technologies and telematics as the foundation of the Internet of Things in Industry 4.0.<br>4. Modeling IT structure and database structure using Aris software.<br>5. Introduction to the use of ERP-class IT tools in supply chains. Case study implementation in SAP ERP and ELSE.ERP programs.<br>6. Introduction to the use of WMS-class IT tools in various business organizations. Barcodes and RFID technology. Traceability in supply chains. Case study implementation in ELSE.WMS program.<br><br>Any questions regarding the topics covered in class, including the project in preparation, can be addressed during office hours with the teacher and during class.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Computer skills (Windows, MS Office), basic knowledge of English, ability to organize relationships between events and actions.</td></tr>
<tr><td>Assessment methods and criteria</td><td><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Project</td><td>0.0%</td><td>10.0%</td></tr>
<tr><td>Students' activity during classes</td><td>0.0%</td><td>10.0%</td></tr>
<tr><td>Final test</td><td>51.0%</td><td>80.0%</td></tr>
</table></td></tr>
<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>1. Chaberek, M.: Makro- i mikroekonomiczne aspekty wsparcia logistycznego. Wyd. Uniwersytetu Gdańskiego, Gdańsk 2002.<br>2. ELSE- materiały i instrukcje do wykonywania ćwiczeń.<br>3. SAP UA - materiały wprowadzające do case studies i instrukcje do wykonywania ćwiczeń.<br>4. Weiland, D., Wierzbowski, P., Logistyka informacji w gospodarce 4.0, Wyd. UG, Gdańsk 2020.<br>5. Szmelter-Jarosz, A., Informatyka w logistyce, pod red. S. Wryczy i J. Maślankowskiego, Wyd. PWN, Warszawa 2019.<br>6. Nowoczesne technologie w logistyce, pod red. J. Długosza, PWE, Warszawa 2009.<br>7. Szmelter, A., Business intelligence jako element systemu zaopatrzenia informacyjnego, Roczniki Naukowe Wyższej Szkoły Bankowej w Toruniu. - 2013, nr 12 (12), s. 127-142<br>8. Szmelter, A., Communication in global supply chains in automotive industry, Information Systems in Management 2015, Vol. 4, no 3, p. 205-218.</td></tr>
<tr><td>Supplementary literature</td><td>1. Lysons K., Zakupy zaopatrzeniowe. PWE, Warszawa 2004.<br>2. Christopher, M., Logistyka i zarządzanie łańcuchem podaży. Wydaw. Prof. Szkoły Biznesu, Kraków 1998.<br>3. Zintegrowane Systemy Zarządzania ERP w gospodarce wirtualnej, pod red. H. Sroki, Wyd. AE w Katowicach, Katowice 2009.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
</table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>Solving case studies using the ELSE.ERP program.<br><br>Modeling the IT system structure of any enterprise using the Aris Express program.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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