

## Subject card

|                                             |                                                                                                                         |                                                          |                                         |                                     |         |                                                                                                                      |     |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------|-------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------|-----|
| Subject name and code                       | Information and Communication Technologies - class, PG_00174005                                                         |                                                          |                                         |                                     |         |                                                                                                                      |     |
| Field of study                              | Logistics and Mobility                                                                                                  |                                                          |                                         |                                     |         |                                                                                                                      |     |
| Date of commencement of studies             | October 2025                                                                                                            |                                                          | Academic year of realisation of subject |                                     |         | 2025/2026                                                                                                            |     |
| Education level                             | Bachelor's studies                                                                                                      |                                                          | Subject group                           |                                     |         | Obligatory subject group in the field of study<br>Subject group related to scientific research in the field of study |     |
| Mode of study                               | full-time studies                                                                                                       |                                                          | Mode of delivery                        |                                     |         | at the university                                                                                                    |     |
| Year of study                               | 1                                                                                                                       |                                                          | Language of instruction                 |                                     |         | English                                                                                                              |     |
| Semester of study                           | 1                                                                                                                       |                                                          | ECTS credits                            |                                     |         | 3.0                                                                                                                  |     |
| Learning profile                            | academic                                                                                                                |                                                          | Assessment form                         |                                     |         | credit                                                                                                               |     |
| Conducting unit                             | Division of Electronic Economy -> Department of Maritime Transport and Seaborne Trade -> Faculty of Economics -> Rector |                                                          |                                         |                                     |         |                                                                                                                      |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor                                                                                                      |                                                          | dr Olga Dębicka                         |                                     |         |                                                                                                                      |     |
|                                             | Teachers                                                                                                                |                                                          | dr Olga Dębicka                         |                                     |         |                                                                                                                      |     |
| Lesson types                                | Lesson type                                                                                                             | Lecture                                                  | Tutorial                                | Laboratory                          | Project | Seminar                                                                                                              | SUM |
|                                             | Number of study hours                                                                                                   | 0.0                                                      | 30.0                                    | 0.0                                 | 0.0     | 0.0                                                                                                                  | 30  |
|                                             | 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                                                                                                   | 30                                                       |                                         | 10.0                                |         | 35.0                                                                                                                 | 75  |
| Subject objectives                          | The aim of this subject is to improve students knowledge about IT. Data analysis with advanced tools                    |                                                          |                                         |                                     |         |                                                                                                                      |     |

| Learning outcomes | Course outcome                                                                                                                                                                                                                                                                                          | Subject outcome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Method of verification                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
|                   | [LML3_K02] is aware of the level of his knowledge in the field of logistics and mobility, understands the need to deepen and update this knowledge throughout life                                                                                                                                      | The student is aware of the scope and limitations of their knowledge in the field of logistics and mobility, particularly in relation to modern information and communication technologies; understands the necessity of continuous learning and updating their knowledge to keep up with technological advancements and industry practices.                                                                                                                                                                                                       | [SK4] test/exam - oral or written<br>[SK5] implementation of a problem task                                            |
|                   | [LML3_K01] recognizes the importance of knowledge in the field of logistics and mobility in the process of identifying and solving economic problems, is ready to interact with other participants in the learning process, and consulting experts in case of difficulties in solving them on their own | Student will be able to use basic computer programs in data acquisition and data analysis, needed at work.<br>Student uses basic methods and tools, including computer tools and techniques to acquire data, and marketing tools to diagnose economic processes and takes up correct business decisions basing on them.<br>Student uses basic software to acquire and analyze data necessary for professional work.<br>The student is prepared to acknowledge the need for consultations with the course instructor in the case of complex issues. | [SK2] presentation/project/paper/report<br>[SK4] test/exam - oral or written<br>[SK5] implementation of a problem task |
|                   | [LML3_U02] is able to use its theoretical knowledge and acquire data to analyze specific logistics and mobility processes and systems, and to analyze these processes and systems using methods developed in economics, finance, management science, logistics and mobility                             | The student is able to use digital tools and platforms to collect, visualize, and manage data relevant to logistics and mobility systems. The student demonstrates the ability to apply spreadsheet software, databases, or specialized logistics ICT tools to perform quantitative and qualitative analysis.                                                                                                                                                                                                                                      | [SU8] observation of student's independent or team work                                                                |
|                   | [LML3_W06] knows to an advanced degree selected methods and tools, including statistical techniques, to describe and model logistics and mobility processes and systems                                                                                                                                 | Student uses basic software to acquire and analyze data necessary for professional work. The student is prepared to acknowledge the need for consultations with the course instructor in the case of complex issues.                                                                                                                                                                                                                                                                                                                               | [SW5] implementation of a problem task                                                                                 |

| Subject contents                                         | <p><b>1. Effective use of the internet as a source of information</b></p> <ul style="list-style-type: none"><li>• use email and the internet to gather and communicate information</li><li>• perform searches using a single criterion</li><li>• refine searches using more advanced search techniques</li></ul> <p><b>2. Interrogate, manipulate and present data using a data handling system</b></p> <ul style="list-style-type: none"><li>• use database facilities to manipulate data to solve problems</li><li>• how to define an appropriate database record structure</li><li>• how to enter and amend data in a database</li><li>• use of Statistica programme in data analysis</li></ul> <p><b>3. Create and edit the contents, appearance and layout of documents</b></p> <ul style="list-style-type: none"><li>• use of word processing facilities to prepare documents</li><li>• enter and edit data from different sources</li><li>• ensuring the accuracy of the text</li></ul> <p><b>4. Create, manipulate, test, interrogate and present data using a spreadsheet model</b></p> <ul style="list-style-type: none"><li>• use a spreadsheet to create and test a data model</li><li>• perform searches using a single criterion and using multiple criteria, with different data types</li><li>• adjust the display features in a spreadsheet</li><li>• produce a graph or chart from the spreadsheet model</li><li>• a spreadsheet for accountants: mapping tables</li></ul> <p><b>5. Create, control and output information from a presentation</b></p> <ul style="list-style-type: none"><li>• preparing a professional presentation use a master slide to place objects and set styles</li><li>• create presentation slides, including text, images, charts, animations and transitions</li><li>• create notes for the presenter and audience As part of supporting the learning process, consultations will be used to clarify more complex issues related to the class topics</li></ul> |                               |                                                                                                                                                                                                                             |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |       |                                     |       |       |  |  |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------|-------------------------------------|-------|-------|--|--|
| Prerequisites and co-requisites                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |                                                                                                                                                                                                                             |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |       |                                     |       |       |  |  |
| Assessment methods and criteria                          | <table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Excel test</td><td>51.0%</td><td>30.0%</td></tr><tr><td>Grade from exercises during classes</td><td>51.0%</td><td>70.0%</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Subject passing criteria      | Passing threshold                                                                                                                                                                                                           | Percentage of the final grade | Excel test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 51.0%                | 30.0% | Grade from exercises during classes | 51.0% | 70.0% |  |  |
| Subject passing criteria                                 | Passing threshold                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Percentage of the final grade |                                                                                                                                                                                                                             |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |       |                                     |       |       |  |  |
| Excel test                                               | 51.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 30.0%                         |                                                                                                                                                                                                                             |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |       |                                     |       |       |  |  |
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| Recommended reading                                      | <table><tr><td>Basic literature</td><td>J. Habraken, Microsoft Office Inside Out (Office 2021 and Microsoft 365) 1st edition, Microsoft Press 2021<br/><br/>Todd C. Helmus, Artificial Intelligence, Deepfakes, and Disinformation: A Primer (RAND Corporation, 2022)</td></tr><tr><td>Supplementary literature</td><td>Dębicka O., "Business value of electronic commerce", [w:] Development and functioning of enterprises in global and changing environment, pod red. J. Kujawy i O. Dębickiej, Gdańsk 2010 Dębicka O., The value of social media in marketing (w:) Contemporary Issues in Economy. After the crisis, red. A. P. Balcerzak, Polish Economic Society Branch, Toruń 2011 Dębicka O., IT solution in building an effective purchase organization - a Polish case" [w:] Regional Managemet. Theory, Practice and Development, Żylna 2012 Dębicka O., Adapting cloud solution in Management Information Systems" [w:] Management Trends in Theory and Practice, Żylna 2013.</td></tr><tr><td>eResources addresses</td><td></td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Basic literature              | J. Habraken, Microsoft Office Inside Out (Office 2021 and Microsoft 365) 1st edition, Microsoft Press 2021<br><br>Todd C. Helmus, Artificial Intelligence, Deepfakes, and Disinformation: A Primer (RAND Corporation, 2022) | Supplementary literature      | Dębicka O., "Business value of electronic commerce", [w:] Development and functioning of enterprises in global and changing environment, pod red. J. Kujawy i O. Dębickiej, Gdańsk 2010 Dębicka O., The value of social media in marketing (w:) Contemporary Issues in Economy. After the crisis, red. A. P. Balcerzak, Polish Economic Society Branch, Toruń 2011 Dębicka O., IT solution in building an effective purchase organization - a Polish case" [w:] Regional Managemet. Theory, Practice and Development, Żylna 2012 Dębicka O., Adapting cloud solution in Management Information Systems" [w:] Management Trends in Theory and Practice, Żylna 2013. | eResources addresses |       |                                     |       |       |  |  |
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| Example issues/ example questions/ tasks being completed | Creating charts, using VLOOKUP, FV, rules of presenting the data. More advanced functions of Excel. Useful software for working in groups. Exercises on doing research and organizing workflow in a group. Different software often used to present results of research. Clever ways to search and do research. Exploring artificial intelligence tools. Discussion of moral aspects and compliance with the rules regarding plagiarism of content online. Learning to write the correct, most effective prompts for use when working with AI tools.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                               |                                                                                                                                                                                                                             |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |       |                                     |       |       |  |  |
| Work placement                                           | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                               |                                                                                                                                                                                                                             |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |       |                                     |       |       |  |  |

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